



THE ENVIRONMENTAL SERVICE BRANCH – A SOURCE OF ENERGY AND RAW MATERIALS

News: Waste is a valuable commodity – a guest commentary by Michael Glos, Federal Minister of the Economy

Environmental Services: Europe's largest industrial environmental service centre

Water management: The new EU states invest in their water markets

People: New murder mystery series on location at REMONDIS

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GUEST COMMENTARY BY MICHAEL GLOS

In his guest commentary, Michael Glos, German Minister of the Economy, writes that "waste is a valuable commodity". Whether it be metal, plastic or paper: raw materials and energy sources recovered by the environmental service branch have become indispensable for both national and global economies as natural resources gradually become depleted.

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THE LIPPE PLANT IN ALL ITS GLORY

The Lippe Plant in Lünen, REMONDIS' headquarters, is unparalleled both as a centre for power and as a source of raw materials. Even investors from Dubai are interested in the concept. REMONDIS aktuell has put together a presentation of the Lippe Plant as a pull-out, centre-page feature to demonstrate the many facets of the site. **Centre-page pull-out**



THE NEW EU STATES INVEST BILLIONS

The Eastern and Central European states are proving to be both ambitious and untiring in their attempts to implement EU standards within their water markets. More and more, municipalities are relying on the know-how of experienced companies to achieve their targets – for example the Polish city and district of Drobin. **Page 26**

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Ludger Rethmann

EDITORIAL

Dear Readers!

THE MINES OF THE FUTURE

In its brochure, "Waste Management in Germany", the German Federal Ministry for the Environment describes waste as being the mines of the future. Today's products are tomorrow's resources: plastics, metals, paper and other raw materials are being used over and over again. The idea of a perpetual cycle of raw materials is no longer some obscure future thought but has already become reality. Every year, several thousand visitors travel to the Lippe Plant in Lünen, REMONDIS' headquarters, to see how raw materials are recovered – from waste electrical equipment, bulky waste, chemical waste or plastic waste. In this edition, we have put together a presentation of the Lippe Plant to show you just how versatile the site is. In the centre of this magazine, our Christmas edition so to speak, you will find a double-page, pull-out section showing Europe's largest industrial environmental service centre in all its glory. Starting on page 18.

REMONDIS ALL OVER THE WORLD

The concept used at the Lippe Plant has even caused a sensation in Dubai (see p. 23). This demonstrates just how international our family-run business has become. The following pages contain reports on REMONDIS projects being carried out all over the world: WEEE recycling in France, water resources management in Poland, Industrie Service in Norway, recycling plants in Australia. Cross border business operations are the norm at REMONDIS now. When my grandfather founded the company in the Münsterland region over 70 years ago, nobody would have believed that it would develop into a 'global player'. 33,000 people around the world now work for our company group. May I use this opportunity to thank them for their work and commitment – REMONDIS would not have been able to develop in such a positive manner without them.

CONTRIBUTIONS FROM WELL-KNOWN NAMES

2006 has been an eventful year for the branch. The pressure resulting from consolidation measures continues and the future development of the water and environmental service markets is being determined more and more by the European Union. Next year, subjects such as the amendment to the Packaging Ordinance, the Waste Framework Directive and tax advantages will continue to keep the branch on tenterhooks. I am very pleased that we were able to find some well-known experts from the branch to contribute to this edition. Michael Glos, Federal Minister of Economics, has written a guest commentary which is well worth reading (page 4). Dr Thomas Rummeler, who plays an important role at the German Federal Ministry for the Environment, gave us an interview on the amendment to the Packaging Ordinance (page 6). Dariusz Matlak, managing director of the Polish Chamber of Waste Management (PIGO), explains how quality is achieved by liberalizing the markets (page 9). And Christa Thoben, Minister of Economics in the state of North Rhine-Westphalia, argues in favour of increased competition (page 8). Exciting issues which will continue to play a role in 2007, too.

I hope you enjoy reading this issue and wish you a very successful New Year.

Ludger Rethmann, Board Spokesman



Environmental politics

Raw materials and energy from environmental services

A GUEST COMMENTARY BY MICHAEL GLOS, GERMAN FEDERAL MINISTER OF ECONOMICS

The Law on the Circular-Flow Economy and Waste Management, which came into force in Germany in October 1996, was revolutionary in the way it linked product responsibility and the protection of resources. Nowadays, it goes almost without saying that waste prevention measures and recycling have priority over waste disposal. Over the last ten years, there has been a change of paradigm towards more responsible and sustainable waste policies.

Those people looking a little more closely know that Germany holds the number one position in the world when it comes to environmental services and waste management. Fifty years ago, no-one would have believed that recycling waste would play such an important role. Today we know: waste is a valuable commodity which we must use economically. The rapid increase in the price for scrap steel, which costs

around 140 percent more today than just a few years ago, clearly demonstrates just how important the “raw material” waste is. The global demand for scrap steel continues to grow, especially in China, as well as for other secondary raw materials such as paper and plastics. A guaranteed supply of these secondary raw materials is vital for global and, above all, local production.

In the future, therefore, we must continue to prioritize in the following order: “prevention, recycling, disposal” so that we can use the limited resources available sparingly. Every recycling measure and each bit of energy recovered from waste reduces the demand for new primary or energy raw materials meaning we are contributing towards sustainability at the same time. This is also the target of the EU’s waste and recycling strategies with its legal centrepiece, the amendment to the EU Waste Framework Directive. The long-term goal is to develop a “recycling society” to achieve lower costs and greater environmental and social benefits.



During the Waste Framework Directive negotiations in Brussels, the German government, and especially my Ministry, will be fighting to achieve practicable and non-bureaucratic regulations to make it easier to recycle in the future. These negotiations will continue to play an important role during Germany’s EU presidency. One of the most important points to be discussed is the definition of the term ‘waste’. We are pushing for it to be clearly defined here. By-products should no longer fall under the term ‘waste’ and secondary raw materials, if they fulfil certain conditions, should be able to be released from the waste regulations. Besides this, the protection of resources should be included as one of the Directive’s official targets in order to put an end to the one-sided manner of looking at the subject from an aspect of environmental policy only. For me, it goes without saying that all of this must be embedded in a framework of better regulations. I am, therefore, critical of the move to lay down a five-phase waste hierarchy in EU waste law. I believe that giving more importance to material recycling over energy recycling makes no sense either from an economical or ecological point of view. I hope, however, that the principle of a ‘life-cycle approach’ will mean there is enough leeway to enable the most sensible route to be taken for individual cases. The fact that the EU Commission has put forward the suggestion that the waste prevention programmes be obligatory for all member

states shows that not all countries have yet sufficiently grasped the concept of breaking down bureaucracy and deregulation.

“Today we know: waste is a valuable commodity which we must use economically.”

Michael Glos, German Federal Minister of Economics

Finally I would like to answer those people from the private waste management sector who criticised the German government for its stand towards disposal autarky for household waste. In my position as Minister of Economics, I lent my support to this suggestion as further liberalization cannot be achieved at the moment either on a national or international level. Furthermore, it cannot be denied that, with all the past and present changes, both private and municipal waste management businesses have a certain right to a secure legal basis and a certain level of security enabling them to plan ahead. In principle, however, I do believe that in the long-term the opportunities should be used to liberalize those areas which are still screened off. If this were not the case, then the principle of product responsibility mentioned at the beginning would also then be called into question.

SHORT PROFILE

- born in Brunnau/Unterfranken in 1944
- apprenticeship and master qualifications in the milling industry
- joined the CSU party in 1970
- German MP since 1976
- member of the committee and CSU party executive since 1993
- 1993-2005 chaired the CSU provincial group in the Bundestag
- German Minister of Economics and Technology since 2005

German Packaging Ordinance

Strengthening the Dual Systems

DR THOMAS RUMMLER ON THE 5TH AMENDMENT OF THE PACKAGING ORDINANCE

Yellow bins and yellow sacks now symbolize the exemplary manner in which waste is separated in Germany. However, doorstep collection of recyclables lacks a sound financial basis. Experts estimate that around 25 percent of all sales packaging is not licensed. For this reason, the German Federal Ministry for the Environment is currently working on an amendment to the German Packaging Ordinance. REMONDIS aktuell spoke to the person responsible for organizing this at the Ministry for the Environment, Dr Thomas Rummler.

Whether it be yoghurt pots, drink packs or Christmas sweets: the manufacturers are responsible for disposing of their packaging.

REMONDIS aktuell: Dr Rummler, what is the overall aim of the 5th amendment of the Packaging Ordinance?

Dr Thomas Rummler: The aim of the amendment is to safeguard doorstep collection of recyclables in the future. It aims to ensure that all manufacturers and sellers of packaging material, and I really do mean all, take responsibility. This means that all manufacturers must take financial responsibility for all the stages actually taken to dispose of their packaging materials. This, in turn, will result in there being a change to the law as far as disposing of the material is concerned: it should become obligatory for packaging, which ends up in private households, to be disposed of via the Dual Systems. Experience has shown that very few consumers actually return the packaging to the shops.



REMONDIS aktuell: So will this solve the problem of those refusing to join the system as well as of copycat schemes?

Dr Thomas Rummler: Yes. This problem is also to be tackled by making it obligatory for manufacturers to sign declarations. They must declare and prove to a neutral panel what amount of packaging they have released onto the market each year, where this packaging has gone – i.e. to private households or commercial businesses – and how they have solved the problem of disposal.

EKO-PUNKT®

Each year, REMONDIS organizes and takes back around 100,000 tonnes of packaging material across Europe under its brand name, EKO-PUNKT®. EKO-PUNKT® has also been active on the German market for several months now. A Dual System licence has already been issued for the state of Hamburg and licences are expected to have been received from all other German states by the end of 2007.

REMONDIS aktuell: When are you expecting the amendment to come into force?

Dr Thomas Rummler: We are making every effort to complete the legal procedures quickly. As there is wide political approval for this amendment, this is a realistic goal: the draft statute is to be submitted in January and we are looking to have the cabinet decide on the paper in February. This would mean the amendment could come into force in the middle of 2007.

REMONDIS aktuell: The challenge of coming up with a clear definition on where private waste sources start and commercial waste sources end is considered to be a crunch point.

Dr Thomas Rummler: It is important to differentiate between packaging which ends up in private households or in comparatively small commercial businesses and that which ends up in commerce and industry. Discussions are currently being held on this matter to reach an agreement and decide on the exact phrasing. It is also conceivable that the definition will be achieved with the help of a list of examples. Sites which handle large volumes of packaging, e.g. hospitals, large canteens and hotels, will probably not be considered as private consumer sources which means they will be able to dispose of their packaging themselves.

REMONDIS aktuell: What is your opinion on the demands put forward by municipalities that they should be responsible for collecting packaging?

Dr Thomas Rummler: There is no good reason for having the responsibility of collecting the waste packaging removed from manufacturers and sellers. All in all, the dual disposal system, which has been tried and tested for over ten years now, has proven its worth. The current matter in hand is not to change the way it is being operated but to ensure that all those businesses releasing packaging onto the market should take over the financial responsibility for disposing of it.

This interview was held by Katja Dartsch

 **EKO-PUNKT**

Municipal tax advantages on their way out

THE EUROPEAN UNION DOES NOT WISH TO ENDANGER FREE COMPETITION

The European Union is striving towards achieving free and fair competition within the water and environmental services branch. There are signs that it will soon be overturning the tax advantages enjoyed by municipalities as such advantages lead to distorted competition in the market.

In a recent announcement, the Commission declared that there are signs of possible distorted competition between municipal businesses and private service providers. The Commission is, therefore, intending to put forward a recommendation soon to the Council of Ministers that the EU Tax Directive be amended in order to prevent municipal companies from "misusing" tax advantages. Municipal businesses are currently exempt from paying turnover tax if they carry out public tasks. In contrast, private companies providing the same services must charge VAT. The Federal Association of the German Waste Management Industry (BDE) has submitted an official complaint to the EU Commission protesting about the tax advantages enjoyed by municipal businesses working within the water and environmental services branch.

Christa Thoben, Minister of Economics for the state of North Rhine-Westphalia, is also supporting the move for fair com-

petition between municipal companies and private firms. In a letter to the BDE, Ms Thoben writes: "The effects of the different tax laws for municipal and private businesses on competition are clear [...]. What is important for me is that, for such a sensitive political and financial matter, the future course is set in such a way that municipal and private waste management businesses are taxed equally." Christa Thoben also clearly supports fair competition when it comes to awarding in-house contracts. She says: "I am of the opinion that targets are more likely to be reached if inter-municipal work is allowed to continue. However, the tasks should only be handed over to such institutions or municipal subsidiaries after they have taken part in an open and fair contract-award procedure facing competition from private competitors and only if they have proven themselves to be the most economical provider. *(dartsch)*

"The advantages enjoyed by municipalities must not be allowed to hinder the development of new markets."

Christa Thoben, Minister of Economics in the State of North Rhine-Westphalia



The freedom to make decisions in Poland

DARIUSZ MATLAK ON THE LIBERALIZED MARKET

Poland has opted for a liberal market economy for its environmental service branch in order to achieve a higher level of service and stable prices: all home owners can decide for themselves which company they wish to use to have their household waste collected. Dariusz Matlak, managing director of the Polish Chamber of Waste Management (PIGO), welcomes the commitment of private service providers in the Polish market:

“The political and economic changes which took place in Poland at the beginning of the 90s also resulted in great changes being made to public services, including the waste management sector. New economic laws and new environmental protection regulations meant that this sector, which up to then had been dominated by the state monopoly, began heading in a new direction. It enabled services, which had previously been municipal tasks, to be privatized.

The previously ineffective municipal companies were replaced by a large number of private businesses. Within a short period of time, leading, internationally active companies were playing a role in the liberalized market. They brought know-how, modern technology and foreign capital with them to Poland. One of the first foreign companies to commit themselves to the Polish environmental service branch was REMONDIS. In 1992, REMONDIS established the first Public Private Partnership in Poland – in Poznan. With the help of foreign companies, a completely new market structure was established in Poland which was based on free and fair competition and which is fundamentally different from the market structure in the old EU countries: all home owners can decide for themselves which company they wish to use to have their household waste collected. It goes without saying that the companies taking part in the competition must fulfil strict regulations and conditions in order to receive the required approval from the local authorities.

Thanks to this liberal system, the quality of the services in the whole of the market have reached a much higher level and the volume of investments has also increased rapidly. At the moment, around 60 percent of household waste is collected by private waste management businesses. Public administration plays the role of market regulator, draws up waste management plans, issues approvals and acts as a supervisory body.

“ On average, each Polish citizen pays one euro a month for the disposal of their household waste. The annual per capita volume of waste lies at approximately 320 kilograms - around 35 percent lower than in the old EU countries.”

Dariusz Matlak, managing director of PIGO



Dariusz Matlak, managing director of the Polish Chamber of Waste Management (PIGO)

When Poland joined the European Union, its national waste laws were adapted to European law. The tasks stipulated in the EU Accession Treaty concerning the prevention, recycling and disposal of waste have, above all, been able to be fulfilled thanks to the work carried out by private environmental service companies – without an extra burden being put on state finances. In short: the system of a liberalized waste market has proven its worth. And that's the way it should remain.”

A few facts

PIGO, the Polish Chamber of Waste Management, which has 150 leading Polish waste management businesses as its members, supports business initiatives which aim to build up and develop the environmental service branch. PIGO is a member of the European Federation of Waste Management and Environmental Services (FEAD) which is based in Brussels.



Public Private Partnership

A strong partner

DUTCH MUNICIPALITIES LOOK TO REMONDIS

Companies are looking to set up strong alliances and international cooperation agreements to remain competitive within the water and environmental service branch. The Dutch firm, ARN B.V., and REMONDIS have been cooperating with one another for many years within the European single market. The two companies are now to work together even more closely.



“A cooperation in the form of a Public Private Partnership opens up good future prospects and will ensure that ARN B.V. enjoys healthy growth.” Gerard van Gorkum, managing director at ARN

The environmental service company, ARN B.V., is selling just under 40 percent of its shares to REMONDIS. This is the first Public Private Partnership (PPP) that REMONDIS has entered into in the Netherlands. The majority share is to remain in the hands of four municipal associations, to which a total of 29 districts belong: namely the special purpose associations for the regions of Nijmegen, de Vallei, Rivierenland and Noord-Veluwe. In the future, REMONDIS will be closely cooperating with these businesses giving them access to their know-how.

ARN took the decision to partly privatize its company in order to be able to strengthen its position among its European competitors, to reduce its financial risks and to safeguard the jobs of its approx. 100 employees. Gerard van Gorkum expressed his pleasure about the new situation saying, “REMONDIS is a strong partner and the best we could wish to have. We have already been working together very well for many years.”

ARN operates a thermal treatment plant with two incineration lines and front-end pre-processing stages in Weurt, a town located close to Nijmegen. ARN is one of the few companies in the Netherlands which produces energy from secondary fuels. The energy recovered from the incineration process is put to good use: each year, ARN feeds around 160,000 MWh of electricity into the public mains. Besides this, it also supplies heat to the sludge treatment plant located close-by. The incineration plant in Weurt has a highly modern flue gas cleaning system and processes up to 270,000 tonnes of



ARN operates an incineration plant in Weurt which is run using high calorific material

high calorific material each year. Before being incinerated, the household waste and commercial waste is first taken to special pre-treatment facilities where it is turned into a fuel mixture. ARN and REMONDIS have been working closely together for several years. As ARN runs a plant which specializes in high calorific material and REMONDIS a plant specializing in low calorific material – namely the GMVA plant in Oberhausen, where REMONDIS is a partner of the Cities of Duisburg and Oberhausen –, the materials for incineration are exchanged between the two plants. As both companies profit from this exchange in material, the co-operation is to be continued and further intensified. “As we have to face ever tougher competition from more and more companies coming from abroad, we are hoping to be able to profit from REMONDIS’ technical knowledge as well as from the size of its business,” explained Gerard van Gorkum. *(dartsch)*

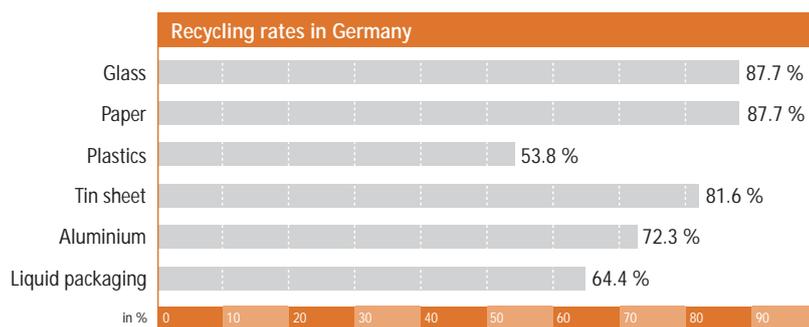
You don't throw away your valuables

URBAN MINING: THE VISION BECOMES REALITY

When building a house, an engineer first thinks about how the raw materials contained in the building which must first be pulled down can be reused for the new one. A vacuum cleaner designer takes into account how the used plastics can be separated and sorted according to type when the vacuum cleaner reaches the end of its life – to produce new vacuum cleaners. The vision of urban mining: we are much closer to this than many realize.

Urban mining: this term does not contain much more than the main principle of the environmental service branch, namely to recover raw materials from waste and use these materials to generate energy or make new products. Urban areas as raw material mines. This idea is becoming more and more fascinating as the prices for primary raw materials such as ore and oil continue to rise. Recycling is a worthwhile activity – and nowadays also makes good business sense.

German citizens are now held in high regard across the world for their high recycling rates. Whereas the strict separation of waste in Germany was looked at by other nations as something slightly amusing in the past, attitudes have now changed: as natural resources are rare and expensive, other countries are now looking to recover whatever 'valuables' can be found in their waste. According to calculations published by the Institute for the German Economy (IW), the environmental service branch has saved the German economy around 3.7 billion euros in raw material and energy costs. "Looking at the way the prices for raw materials have increased over the last few years and the demand for raw materials, which will probably continue to rise, then secondary raw materials represent an important alternative supply source," concluded Prof. Michael Hüther, director of the IW.



Whereas many European countries still find themselves at the very beginning, the various stages to achieve urban mining have already been completed in Germany. Take glass as an example: 91 percent of the glass used for glass production is recycled glass making it the most important raw material for the industry. The glass recycling rates in Germany lie at 87.7 percent – as a comparison the figure is 38 percent in Poland and 33 percent in Turkey. The situation is similar in the paper sector. The recycling rates in Germany lie at 87.7 percent – in Turkey, it is 25 percent and in Romania 42 percent. Germany also tops the recycling rate lists in Europe for packaging made from plastic, aluminium and tin sheet.

Thanks to urban mining, the environmental service branch has become a branch of the future.

And the know-how, which the German environmental service companies have gathered over the past, is in great demand. Prof. Hüther commented, "The companies will especially profit from the ever expanding European market thanks to the know-how they have in the areas of collecting, sorting, recycling and disposing of waste." *(dartsch)*

"Urban mining has also become interesting from a business point of view. For this reason, efforts are being made in practically all European countries to increase recycling rates."

Thorsten Feldt, managing director at the REMONDIS subsidiary, Trade and Sales GmbH



Urban mining: for resource managers, the whole of a city is a potential source of raw material.



The "scrap metal island" at Duisburg Harbour is the largest scrap yard in Europe.

Europe's largest scrap yard

40,000 TONNES OF METAL ARE PROCESSED AT DUISBURG HARBOUR EVERY MONTH

The ground trembles. Tonnes of steel pipes, iron bars and railway tracks crash to the ground. The noise is deafening and there is a distinct smell of metal in the air. A normal day at Europe's largest scrap yard: the "scrap metal island" at Duisburg Harbour.

This "scrap metal island" covers an area of 12 hectares and is located directly next to the coal heap with only a port basin separating them from one another. The scrap yard employs 51 people – including Fred Martin, "Obermeister" (master of a guild) at TSR Recycling GmbH & Co. Mr Martin has worked for the company for 33 years. His office is located at the entrance to the yard directly above the truck weighing machine and the railway tracks for the freight traffic.

"Nothing gets into or leaves the yard without me seeing it," he laughs. A long chain is attached to his trousers holding a small magnet. This is not a toy but one of his tools:

Mr Martin uses the magnet to carry out random checks to see if the goods contain iron. Generally though, he is able to recognize the quality of the material by the way it sounds. His ears are well attuned after so many years of working in the business.

Around 40,000 tonnes of scrap metal is stored at the scrap yard. Metal that was once part of a car, railway track, container, pipe or washing machine. The metal is processed at the yard for steelworks all over the world. It is sorted, cut up, shredded or pressed – depending on the quality of the material required by the customers. The shredder used at the yard is the size of a large detached house and has the power to crush a whole car. There are some materials, however,



which are too big for even it to handle – for example railway tracks. These are cut up by hand into 1.5-metre pieces using blowtorches so that they are the right length to be further processed.

Having been pressed into heavy blocks or moulded into small balls which can then be easily measured into exact amounts, the steel, iron and precious metals wait to be taken away. Huge cranes mounted onto bridges load the wagons, cargo ships and trucks. The raw materials, which are in such demand, then leave Europe's largest scrap yard under Fred Martin's watchful eye to be melted down at steelworks and transformed into new products. *(dartsch)*



REMONDIS holds a 60 percent share in TSR Recycling GmbH & Co. KG. The remaining shares are owned by the Italian steel producers, ALFA ACCIAI, and the Karlsruhe-based company group, CRONIMET. The Monopolies Commission is expected to issue its approval for the takeover during the first quarter of 2007.



Great care must be taken when processing mercury glass mirrors.

momentphoto.de/Ronald_Bonss

Industrie Service

Mirror, mirror on the wall

NQR HELPS TO RESTORE THE GREEN VAULT

The Historical Green Vault, which houses the treasure collection amassed by Augustus the Strong, was, for the most part, destroyed during the bombing of Dresden in 1945. The restoration work proved to be both lengthy and complex. NQR Nordische Quecksilber Rückgewinnung GmbH, a company belonging to REMONDIS, lent its support during the restoration.



The sparkling light shining off the many mirrors in the Historical Green Vault enhances the beauty of the precious stones and other treasures made of gold, silver and amber belonging to the collection. And for this reason, great care was taken during the restoration work to ensure that the mirrors reflected

were used in the Historical Green Vault. 170 kilograms of mercury was required to restore the mirrors and this was provided by NQR Nordische Quecksilber Rückgewinnung GmbH, a 100-percent subsidiary of REMONDIS Industrie Service. During this time, the NQR employees worked very closely together with the mirror manufacturer, Steffen Noak from Spiegel Art in Weißwasser.

“This is one of the best possible things that can happen to an environmental service company such as NQR when their materials are put to such use.” Volker Warrelmann, managing director of NQR

the light in exactly the same way as they did in the past. All of the ornate mirrors have been produced according to the original methods used during the 18th Century. As in the majority of the castles built before 1900, mercury glass mirrors

Five years were needed to reconstruct the rooms in the west wing of Dresden’s Royal Palace. Around 120 engineers, architects, gilders, sculptors, carpenters and restorers were involved in the project. In autumn 2006, the Green Vault was then officially reopened to the public by the Chancellor, Angela Merkel. *(skroch)*

Energy for the soda works

FIRST WASTE FIRE IN THE NEW TREATMENT PLANT IN DECEMBER 2007

REMONDIS is building a thermal treatment plant in Staßfurt close to the A14 between Magdeburg and Halle. The foundation stone was laid in March 2006 – many changes have been made to the building site since then.

“We are working well within schedule,” commented the project manager, Dr Jörg von Smuda. Incineration activities are due to begin at the end of 2007. Around 300,000 tonnes of municipal waste and commercial waste similar to that from households will then be incinerated each year to generate energy. The neighbouring soda works is to be supplied

with the process steam produced from the incineration activities as well as with electricity generated from the steam. The expected amount: 63,000 megawatt hours of electricity and 360,000 megawatt hours of steam a year.

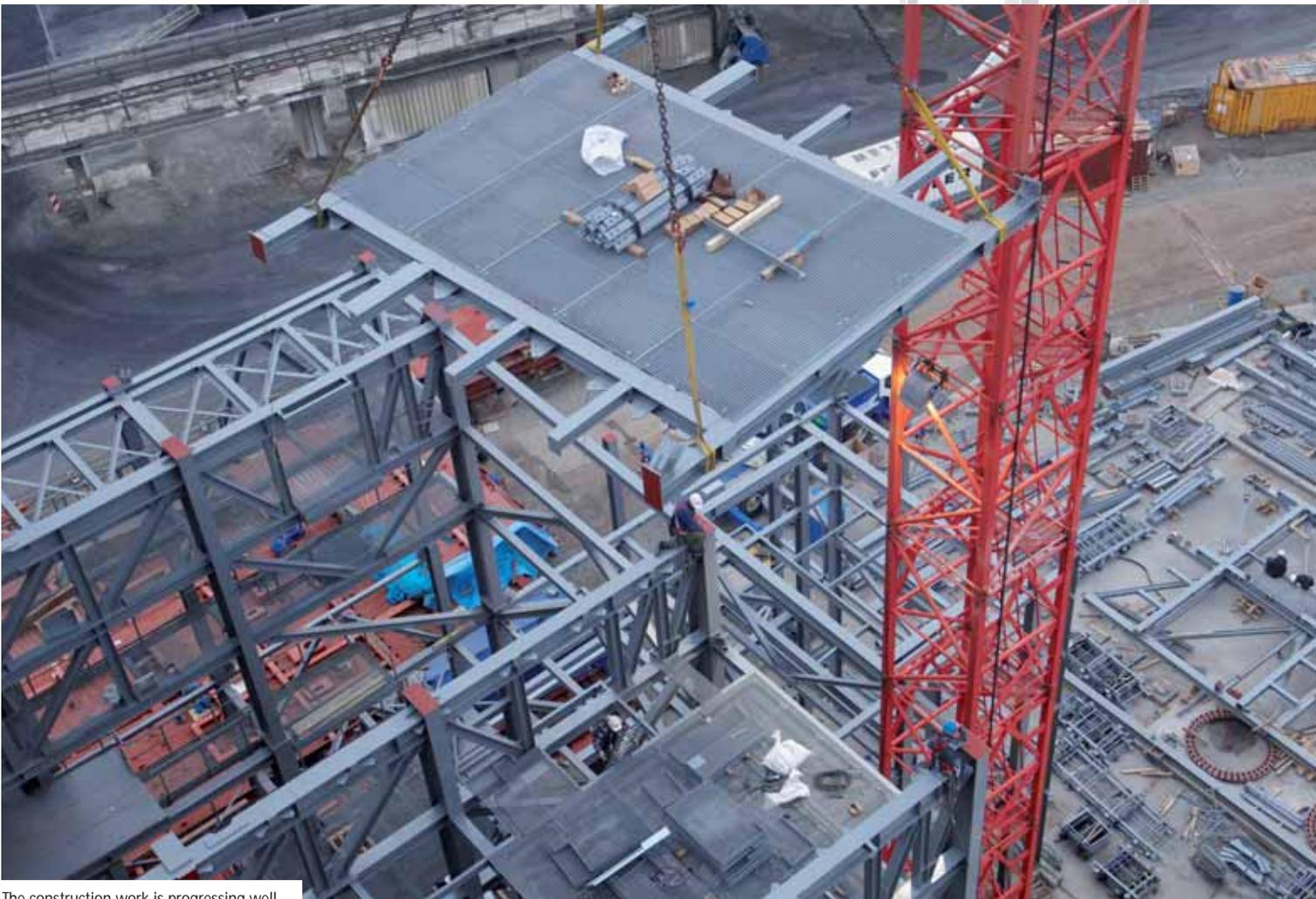


The construction work is progressing well. The boiler frame structure, which is over 40 metres high, is currently being erected. The fuel-bed firing and ash disposal systems for both incineration lines are being installed at the same time.

“The heavy construction work has been completed except for the supply ramp and surface area,” Mr von Smuda explained. He has already held first interviews with potential employees. A total of around 110 new jobs will be created in the plant and other regional businesses as a result of this project. The first employees will already start working in January 2007. *(dartsch)*

Capacity use

A contract has been signed with, among others, the City of Braunschweig which will help to guarantee that the plant is used to capacity on a long-term basis. As part of a Europe-wide tender, REMONDIS won the contract to process the household waste from Braunschweig. This shall involve up to 80,000 tonnes of waste per year which is to be transported to Staßfurt by rail.



The construction work is progressing well.

A centre for power and raw materials: The Lippe Plant

A VISIT TO EUROPE'S LARGEST INDUSTRIAL ENVIRONMENTAL SERVICE CENTRE

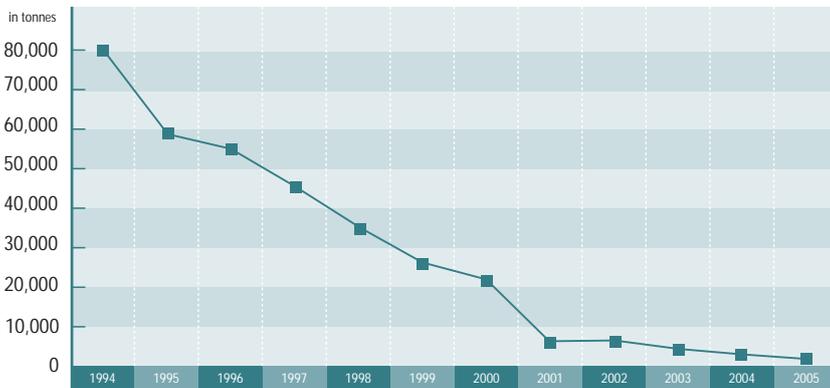
100,000 trucks travel through the works entrance at the Lippe Plant in Lünen each year. They deliver a wide range of materials including FGD gypsum, slag, old refrigerators, slaughterhouse refuse and bulky waste. Around 1.5 million tonnes of material a year. This material is, however, not useless waste – but raw materials for future use.



The Lippe Plant in Lünen is the largest centre in Europe providing environmental services for the industry. The trucks leaving the Lippe Plant are loaded with raw materials from which new products will be made: plastic granulates, metals, binding agents, earths. Or they are loaded with substitute fuels which are used to substitute fossil fuels at power stations. Such substitute fuels are made from soiled papers, cardboard, paperboard and plastics which cannot be recycled.

The Lippe Plant powers its own power station with substitute fuels. A large percentage of the energy needed by the processing facilities located at the Lippe Plant is covered by this power plant. Twelve years ago, the power plant was run exclusively on semianthracite coal (see illustration). The percentage of coal used to fire the plant has been reduced to under 5 percent – and so CO₂ emissions are a mere fraction of what they used to be.

Coal consumption



The use of semianthracite coal in the power station at the Lippe Plant has fallen continuously over the last few years.

The way in which the Lippe Plant implements the idea of a “circular-flow economy” is practically unique in Europe. One example: bulky waste and other kinds of waste timber from the region is sorted, reduced in size, screened and separated in the state-of-the-art timber processing plant at the Lippe Plant. Depending on the quality of the material and how homogenous it is, the material is then used to produce chippings for chipboard production or as an energy source at the neighbouring biomass-fired power plant to generate electricity. The electricity is fed into the public mains and covers the needs of approx. 40,000 households.

A walk around the WEEE dismantling centre – the largest in Europe – also clearly underlines the fact that priority is being given to recovering the greatest amount of raw materials possible. Standing at the entrance to the centre, it is possible to observe what products are delivered every day: waste electrical and electronic equipment ranging from televisions to refrigerators to vacuum cleaners. Once the harmful substances have been carefully removed in an environmentally sound way at the dismantling centre, the waste equipment is then mechanically processed and sorted. By the end of the process, the materials have been

“It is exciting to see how bit by bit the environment can be effectively protected using new technology. What is decisive is that valuable materials do not end up in landfills but are recycled.”

Andreas Pinkwart, Minister for Innovation in the state of North Rhine-Westphalia, after a visit to the Lippe Plant

(Source: Westfälische Rundschau)



Waste at our dismantling centre is taken apart – to a certain extent by hand – and cleanly separated into individual fractions



Developing and implementing innovative production processes is a long-established feature of REMONDIS' corporate strategy.

sorted into different homogenous fractions which can then be fed back to the industry as raw materials: including copper, aluminium, platinum, steel and plastics. The cathode ray tubes, panel glass and funnel glass are used to manufacture new televisions.

they are fascinated by the products REMONDIS produces, such as its high quality soils, by the biodiesel station, the filling station for the fleet of trucks, by the sorting plants and by the storage facilities.

Whether they visit the dismantling centre, timber processing facilities, plastics recycling centre, biodiesel plant or the earthworks: visitors are highly impressed by the industrial processing and further processing procedures used at the Lippe Plant. Several thousand people visit the Lippe Plant each year: customers and business partners as well as people living close by, school groups, politicians and journalists. The number of visitors from abroad is also steadily increasing – a sign that the Lippe Plant has become a global model for the environmental service branch. In 2006, visitors have been welcomed from all around the world including groups from India, Turkey, Norway, Israel, Thailand, China, Poland and Hungary. As they are taken around the site on a bus,

1,200 people work at the Lippe Plant, a site which was previously owned by the Vereinigte Aluminium Werke. Since REMONDIS took over the Lippe Plant from the Vereinigte Aluminium Werke in 1993, it has invested 270 million euros in the site and its facilities. Only 4.5 hectares of the total 230-hectare site remain unused. It is a site with a future: the good infrastructure and the excellent motorway, harbour and rail connections have meant that external companies are also very interested in the site. The future of the environmental service branch lies in central recycling centres such as the Lippe Plant. The concept has also achieved international recognition: a recycling park is to be built in Dubai, for example, which is to be modelled on the Lippe Plant concept (see p. 23).

The many facets of the site

> Biomass-fired power plant:

The biomass-fired power plant was put into operation in the summer of 2006. Since then, it has been generating electricity from waste timber: 150 million kilowatt hours of electricity a year – enough to cover the requirements of 40,000 households.

> Fluidized-bed power plant:

The power plant supplies the whole site with energy. Around 95 percent of the material used to run the power station is substitute fuel.

> Biodiesel:

Biodiesel is produced in the multi-feed stock plant from fats and oils – 100,000 tonnes a year. REMONDIS' fleet of trucks is run on this fuel, which is sold under the brand name ecoMotion and produced by its sister company, SARIA. The trucks fill up at the filling station on site at the Lippe Plant.

> Fuels:

High calorific residual waste consisting of paper, cardboard, plastics and textiles which is left over after sorting procedures and cannot be recycled is processed into substitute fuel for power stations. This means a reduction in the need for oil, gas and coal.

> Soils:

Excavated earth from building sites and mineral aggregates are used to produce earth substrates as well as plant substrates.

> Waste timber:

250,000 tonnes of waste timber is processed at the timber processing facilities each year and is reused, for example, to produce chipboard or as a source of energy.



> Electrical and electronic equipment:

The WEEE dismantling centre is the largest and most modern of its kind in Europe. 100,000 tonnes of discarded equipment are processed here each year. Valuable raw materials such as copper, aluminium, steel and plastics are recovered for recycling.

> Precious metals:

Slag and furnace residue often contain high quality alloys – and this metal is recovered at the Lippe Plant. 240,000 tonnes of material, containing 18,000 tonnes of metal, are able to be processed each year.

A large number of products are produced for the industry at the Lippe Plant. Products such as the sodium aluminate, alumin[®], the white pigment, casul[®] and the gypsum product, RADDIBIN[®], are in high demand across the world.



- Administration
- Energy
- Recycling
- Production
- External companies
- others
- Roads, paths and car parks
- grassed areas and unoccupied areas
- Landfill
- being planned

> **Chemicals:**

Sludge and solutions containing aluminium, i.e. by-products from treating the surface of aluminium parts or from producing catalysts, are cleaned, concentrated and filtered. The end product of this process is a key substance required for alumin[®], a high quality sodium aluminate, which has different uses, for example, as a flocculating agent in the water industry. Besides this, alumin[®] is also an essential ingredient needed to produce the white pigment, casul[®].

> **Plastics:**

Plastic waste is ground and cleaned and then processed in modern plants into high quality plastic granulates of differing colour and quality.

> **Gypsum:**

FGD gypsum is a by-product of coal-fired power plants. The material is processed and can then be used by the gypsum industry as a raw material. The product, RADDIBIN[®], can be obtained in varying qualities and is used by a number of different branches – from the construction industry to dentistry.

> **UCL:**

The specialist laboratory, UCL (Umwelt Control Labor), carries out environmental analyses for both REMONDIS and external customers such as engineering firms, public authorities and chemical companies.

> **Wirtschaftsbetriebe Lünen:**

Wirtschaftsbetriebe Lünen is a company jointly owned by the City of Lünen and REMONDIS.

> **Compost:**

Waste from gardens and parks as well as other kinds of biologically degradable waste are processed at the composting plant into soil improvers and then sold on the market under the brand name Reterra[®].



wastewater treatment

production of
white pigments

chemicals processing

fluidized-bed p...

landfill

power station

composting plant

production of substitute fuels

timber processing

production of binding agents

production of biodiesel





ng

plastics recycling

production of precious metals

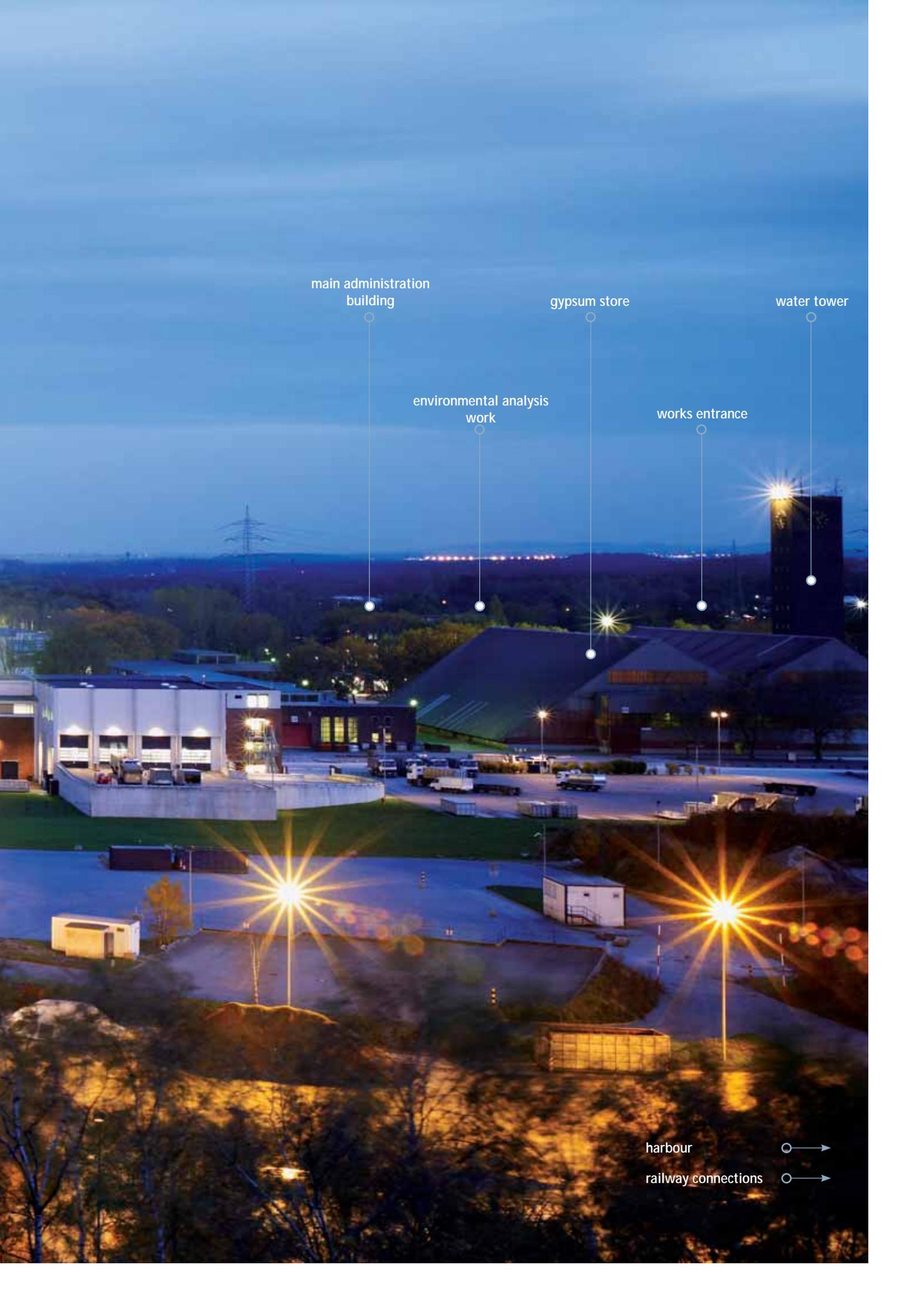
Electrorecycling dismantling centre

biomass-fired power plant

biodiesel filling station

earthworks

SARIA Bio-Industries



main administration building

gypsum store

water tower

environmental analysis work

works entrance

harbour

railway connections



Australia is changing its point of view

MORE AND MORE WASTE IS BEING PROCESSED RATHER THAN DUMPED IN LANDFILLS

Is everything different down under? Tony Khoury, managing director of the Waste Contractors and Recyclers Association of NSW reports on the environmental service branch in Australia.

REMONDIS aktuell: Tony, what generally happens to waste in Australia?

Tony Khoury: The majority of the waste produced in Australia is taken to landfills. Many landfills are located in old quarries which were active when clay and shale was quarried for the production of bricks. However, for some years now, recycling and processing plants have been playing a more important role.

REMONDIS aktuell: What kind of processing plants are there in Australia?

Tony Khoury: Well, there are plants which specialize in sorting certain materials such as paper, cardboard, metal or glass which has been directly transported to them from source. Then there are plants which sort light packaging, household waste, construction waste and demolition waste either by hand or mechanically. Besides this, many different kinds of treatment technology have been developed over the last few years enabling household waste and commercial waste to be sorted together. Recyclable materials such as paper, cardboard, metal, glass and plastics undergo a number of sorting phases during which they are separated from one another, whilst the organic waste is processed into compost or soil. A good example of such a plant is REMONDIS' AWT plant in Port Macquarie.

REMONDIS aktuell: Are there many incineration plants in Australia?

A few facts

The Waste Contractors and Recyclers Association (WCRA) is an industrial association, which provides environmental service companies with support in all general and operative matters. The WCRA addresses a series of issues including networking, the environment, health, safety and training. www.wcra.com.au

Tony Khoury: In Australia, there are incineration plants which are exclusively used for hospital waste. Other kinds of waste are not treated thermally and so are not used to generate energy. Those people supporting such a development need a great deal of optimism and a very deep pocket (laughs).

REMONDIS aktuell: What relationship does REMONDIS have to the WCRA?

Tony Khoury: REMONDIS is a member of the WCRA. We have already implemented many projects together. The latest project was a series of training measures which the WCRA carried out at REMONDIS in St. Marys. As there is a lack of specialist staff in Australia, the Government supports such training courses. Luke Agati, managing director of the Australian business, REMONDIS Pty Ltd (RV), provided us with a great deal of support during the employee training courses.

This interview was held by Sonja Beckerhoff

“More than 95 percent of Australian households separate their waste. The rate is much lower in the commercial sector.”





People in Dubai are beginning to think about conserving resources

The Middle East

Dubai looks to Lünen

REMONDIS IS PLANNING A RECYCLING PARK ON THE PERSIAN GULF

A recycling park is to be built in Dubai – the first ever in the Middle East. The modern environmental service centre is to be modelled on the Lippe Plant in Lünen (see p. 18).

The recycling park, which is planned to be built in the Dubai Industrial City district, is a perfect example of how people in Dubai are beginning to change their point of view: up to now the inhabitants of this country, one of the United Arab Emirates, have incinerated what they no longer need or deposited it in landfills. Dubai, however, is expanding at a very rapid rate and the country has been forced to think about their ever increasing amount of waste – indeed, Dubai currently lies in fifth place on the global list of countries producing the highest volume of waste (per capita).

The inhabitants of Dubai are now beginning to think about recovering raw materials and conserving resources. And those living and working in the Dubai Industrial City district, a huge industrial and residential area, are having the same thoughts. Dubai Industrial City is home to companies from a wide range of industries including food production, the chemical industry and the construction branch. The project is being developed by National Projects Holding Co. It has decided to set an example by building a modern recycling park. “We are looking to revolutionize the way waste is handled in the Middle East and set up a recycling park in Dubai Industrial City containing a dozen different kinds of recycling facilities,” explained Musaed Al-Saleh, deputy managing director at National Projects Holding Co. To achieve this, they needed

an experienced partner – and having visited the Lippe Plant in Lünen at the invitation of the company, Ludowig GmbH, Mr Al-Saleh then commissioned REMONDIS with the task of drawing up a master plan. The study is due to be submitted in the summer of 2007. And the plan is for the recycling centre to be already up and running by the end of 2008. National Projects Holding Co is intending to invest 117 million euros in the project.

von LUDOWIG

“We are expecting the Dubai Recycling Park to have an enormous influence on reducing CO₂ emissions in the region.” Musaed Al-Saleh, deputy managing director at National Projects Holding Co.

A few facts

Dubai has 1.2 million inhabitants and covers an area of 3,900 square kilometres making it the second largest of the United Arab Emirates (UAE). Most of the country's population lives in the City of Dubai – one of the world's most rapidly expanding cities. The most important sources of income for the UAE are the extraction, processing and export of oil and gas. Experts believe, however, that Dubai's reserves will have been used up within ten years at the latest. For this reason, Dubai has been expanding other fields of business over the last few years, especially within the areas of retailing, tourism and the media.

Public Private Partnership

Privatization in Gießen

REMONDIS PURCHASES A SHARE IN ZAUG RECYCLING GMBH



Having put out a Europe-wide tender to partly privatize its own business, ZAUG Recycling GmbH, the District of Gießen has chosen REMONDIS to be its new partner. The Monopolies Commission approved the takeover of a 25.1 percent share in the company in the middle of November with there being no conditions attached to the approval. At the same time, REMONDIS is to take over the residual waste disposal activities for its new Public Private Partnership partner, the District of Gießen. This shall involve up to 44,000 tonnes of material each year which is to be taken to Frankfurt for thermal treatment. *(dartsch)*

Services for event organisers

A banquet to satisfy all the senses

REMONDIS IS A PARTNER OF THE WITZIGMANN & RONCALLI BAJAZZO DINNER SHOW

Chef of the century, Eckart Witzigmann, and Roncalli director, Bernhard Paul, have hit the headlines over the last few weeks – with their new Witzigmann & Roncalli Bajazzo dinner show. A show which aims to pamper all the senses: culinary delicatessen delights from Mr Witzigmann combined with a show put together and directed by Roncalli director, Bernhard Paul. Whilst the variety and circus artistes enchant the audience on the stage, REMONDIS is active backstage – providing its services in Munich, Cologne, Frankfurt and Hamburg. Glass,

cans, plastic film, wood, residual waste: all the different types of waste produced by this complex show need to be disposed of. Jochen Reinhard, project leader at REMONDIS, commented, “The show in Cologne proved to be a particular logistical challenge as it was held on a boat, the MS Rhein Energie.” The waste had to be subtly removed from the boat during the show and taken to a central collection point on the banks of the Rhine. *(dartsch)*



The dismantling centre in Lünen was the meeting place for WEEE experts from all over Europe.

WEEE recycling

Experts from all over Europe visit REMONDIS

WEEE FORUM VISITS THE DISMANTLING CENTRE IN LÜNEN

The European member states are gradually passing national laws to adopt the EU Directive on waste electrical and electronic equipment (WEEE). To achieve this, intensive cross-border discussions are being held by experts. The aim is to develop European standards for dismantling electrical and electronic equipment. The last meeting of the WEEE forum took place at the REMONDIS headquarters in Lünen. Representatives from 15 countries travelled to Lünen to tour the largest and most modern dismantling centre in Europe. The guests came from countries such as Norway, Portugal, Hungary, Ireland and Italy. *(dartsch)*

Cleaning tanks in Norway

THE BUCHEN GROUP IN ACTION FOR STATOIL

The Buchen Group, a company belonging to REMONDIS, is currently cleaning two huge tanks containing a total of 15,000m³ of tank sludge for STATOIL in the Norwegian city of Mongstad. The whole spectrum of the Buchen Group's know-how, involving different kinds of specialist services, has been bundled together to enable this project to be carried out by just one company.

The first step was to mobilize the tank sludge using the Buchen tank cleaning system (BTS). This involves the sludge being sucked out of the tank, its consistency being altered to make it flow more easily and then being fed back into the tank under pressure via a 'jet washer'. This mobilizes and mixes up any tank sludge still remaining in the tank making it easier to suck it out. Following this, the sludge undergoes three individual phases to separate the water, oil and solid materials from one another. The water can be processed in STATOIL's sewage treatment plant, the solids are disposed of professionally by the customer and the oil is fed back as a product into the customer's process cycle. The project is due to have been completed by the beginning of 2007.



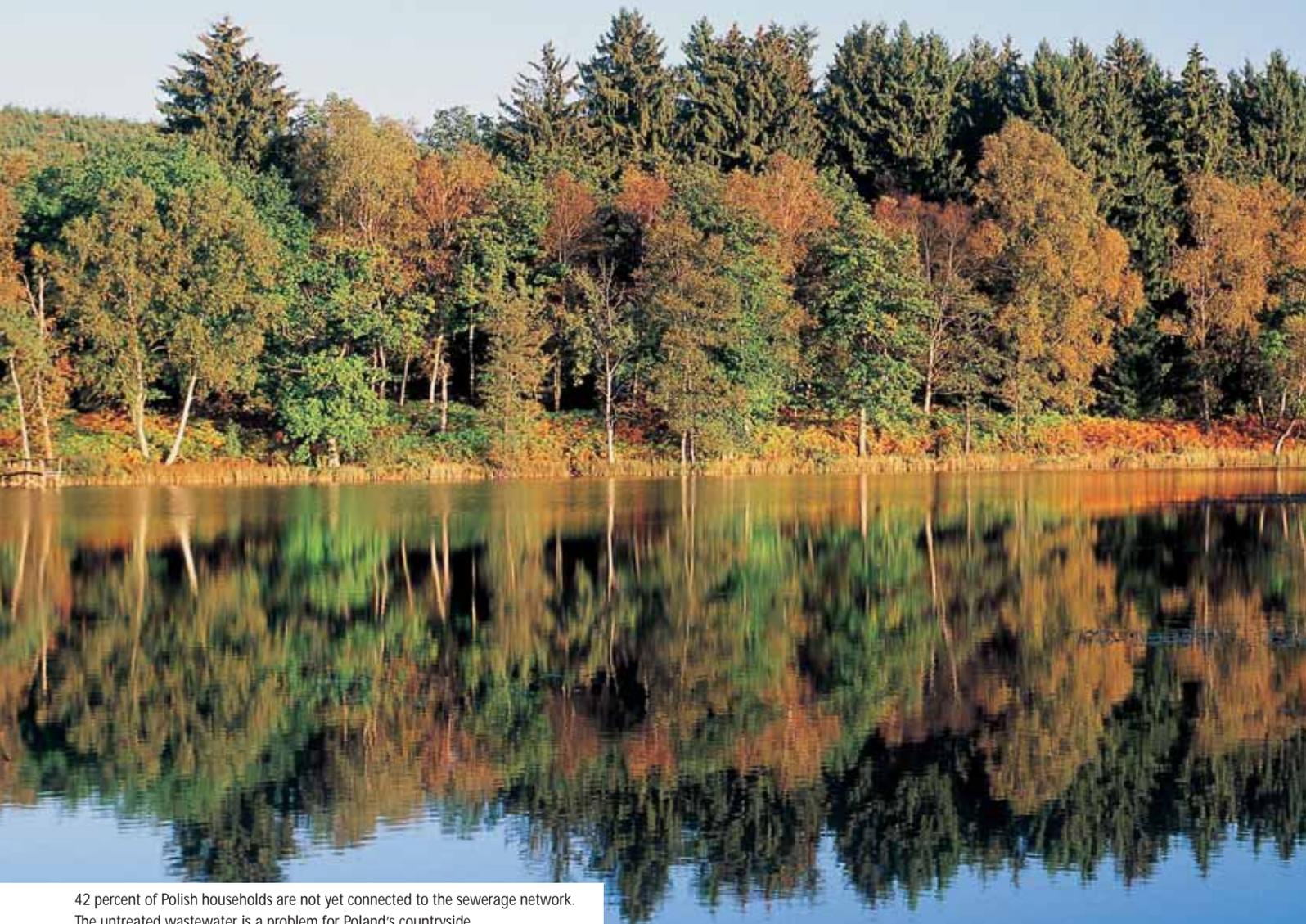
REMONDIS awarded a gold medal in Poland

REMONDIS has been awarded a gold medal in Poland: the prize was presented on 20th November by the jury of the "Accanthus Aureus" competition, which was headed by Professor Henryk Mruk from the University of Economics. REMONDIS received the award in recognition of its successful company presentation at the international environmental exhibition, POLEKA, in Poznan. REMONDIS, the jury said, was the company which was most successful in implementing its marketing concept. *(plywaczyk)*

Lamps and lights

PARTICIPATION IN TCMS S.A.

The European Union's directive on taking back waste electrical and electronic equipment (WEEE) was adopted by France this autumn. REMONDIS is now beginning to intensify its activities in the area of electrical and electronic equipment recycling in France. In November, REMONDIS took over a 60 percent share of TCMS S.A. The main business activities of TCMS, which is based in the city of Troyes, are collecting and processing lamps and fluorescent lamps. TCMS has also been involved in dismantling used equipment for one year now. Plans are for this field of activity to be further expanded. *(dartsch)*



42 percent of Polish households are not yet connected to the sewerage network. The untreated wastewater is a problem for Poland's countryside.

Central Europe

Sustainable water management

A SMALL POLISH TOWN FINDS A PUBLIC PRIVATE PARTNERSHIP WITH REMONDIS

The new member states of the European Union are investing billions in order to fulfil the demands of the EU concerning the supply of drinking water and the treatment of wastewater. Roland Ruscheweyh, a managing director at REMONDIS Aqua, and Helena Dytkiewicz, managing director of REMONDIS Aqua in Poland, gave the small Polish town of Drobin as an example.

REMONDIS aktuell: The town and district of Drobin has founded a Public Private Partnership with REMONDIS: what tasks will the PPP be carrying out?

perfectly, we are able to make the very most of our strengths. We operate similar PPPs in Germany with the cities of Oberhausen, Gotha and Bremerhaven.

Roland Ruscheweyh: Emphasis is clearly being put on supplying drinking water and treating wastewater. Besides this, though, REMONDIS is responsible for the town cleaning services, waste logistics and the landfill. By combining water and environmental services, which complement each other

REMONDIS aktuell: In Poland, there are only a handful of PPPs within the water management sector. Why is this?

Helena Dytkiewicz: There was a time when municipalities were worried that PPPs would mean they would lose control



less and less money in their systems. The drinking water pipelines and sewage networks have only been repaired when there is an emergency and there is no choice but to act. This has resulted in the pipes becoming blocked or breaking more and more often so that the pressure in the pipelines is not high enough and the quality of service suffers. Not enough money is being invested in the infrastructure – and the citizens get to feel the full force of the effects.

REMONDIS aktuell: How can the problem be solved?

Drobin is located around 100 kilometres north-west of Warsaw in Województwo Mazowieckie. In the future, REMONDIS will be supplying the citizens and local commercial businesses there with 450,000m³ of drinking water per year.

Roland Ruscheweyh: The water infrastructure must be improved in a sustainable manner. The municipalities will only be able to achieve this goal if they have access to the necessary know-how, capital and modern water resources management. REMONDIS succeeded in convincing the authorities in Drobin of this by putting forward a detailed economical concept. A contract has been signed concerning an investment programme which aims to renovate the drinking water and wastewater networks, the sewage treatment plant and several waterworks over the next four years. A programme which includes socially acceptable fees and a transparent method to calculate the fees.

This interview was held by Katja Dartsch

of their business. Since then, however, the experience of other branches, such as utility-supplied heat or environmental services, has shown that the PPP model is a good one. Besides this, they have had to recognize the fact that microstructures cannot survive in the long-term. For this reason, more and more municipalities are also looking at privatization for their drinking water supply and wastewater treatment. Today, already 50 percent of municipal businesses are incorporated companies. And cooperation work between municipal and private companies is the accepted thing nowadays.

REMONDIS aktuell: To what extent is Drobin a typical example for the water resources market in the new EU member states?

Helena Dytkiewicz: As far as the supply of drinking water and the treatment of wastewater is concerned, Drobin displays all the typical symptoms suffered by many small towns in Central and Eastern Europe. As the municipal businesses lack the necessary funds, they have been investing



Helena Dytkiewicz and Roland Ruscheweyh at the signing of the contract.





The red tape is cut officially opening the new wastewater treatment facilities.



Project leader, Dr Martin Lebek (left), takes the minister, Mr Backhaus, on a tour of the facilities.

Innovation

Raw materials from the cheese dairy

INNOVATIVE PROCESS TO RECOVER PHOSPHORUS

Hard cheese, sliced cheese, whey: the company Küstenland Milchunion, in the German state of Mecklenburg-Vorpommern, produces tens of thousands of tonnes of cheese and whey products from fresh milk at its factory in Altentreptow each year. REMONDIS Aqua cleans the wastewater resulting from the production processes there.

The extended wastewater treatment facilities were officially put into operation this autumn. Around 200 guests were invited to the opening ceremony including Dr Till Backhaus, Minister for Food, Agriculture, Forestry and Fisheries in the state of Mecklenburg-Vorpommern. The guests were impressed by the innovative treatment system: using anaerobic wastewater treatment facilities, the organic content in the wastewater can be used to produce biogas. REMONDIS has built a new combined heat and power plant on the site for this purpose.

The production wastewater, however, is not only being used to generate energy but also as a source of raw materials. Wastewater resulting from cheese production and whey processing also contains the mineral phosphorus which is used all around the world for, for example, producing fertilizers. Each year, millions of tonnes of this raw material are being removed from the ground in countries such as China, Morocco and the USA. In Germany alone, around 280,000 tonnes of the mineral is needed for fertilizer production. However, the natural supplies of this raw material are dwindling.

“The idea chosen here to generate energy from organic materials using anaerobic technology has the characteristics of a pilot project for use in other areas within the industrial water management sector.”

Roelof Weerts, managing director at Wheyco

Experts believe that they could have been completely used up within only 60 years. Finding ways to recover phosphorus is, therefore, becoming more and more important.



After many months of research work, a method has now been developed in Altentreptow to recover phosphorus from the wastewater using MAP precipitation enabling it to be fed back into the nutrient cycle. Dr Martin Lebek, project leader, commented, “The way in which energy is generated and phosphorus recovered from treating wastewater in Altentreptow clearly demonstrates the great economic and ecological potential that can be released by innovative water management within the industrial water management sector.” *(dartsch)*

Brussels sets the future course towards privatization

PRIVATIZATION OPTION EXPECTED FOR WASTEWATER DISPOSAL

“In private hands rather than state hands” is the credo of the CDU/FDP coalition in the German state of North Rhine-Westphalia. Despite this, however, and in contrast to previous announcements, a privatization option for the wastewater sector was not included in the new state water law. REMONDIS aktuell spoke to Holger Ellerbrock, environmental spokesperson for the FDP provincial parliamentary party in the state of North Rhine-Westphalia, about this matter.

REMONDIS aktuell: Mr Ellerbrock, why was the privatization option suddenly not included in the law at the last moment?

Holger Ellerbrock: A better way to express it would be to say the privatization option has not yet been included. It will, however, be included in the foreseeable future. There was, in principle, general agreement among the coalition partners for this move. However, when speaking to the associations, it became very clear that the moment we paved the way for possible privatisations, the associations and municipalities would also be burdened with the full rate of VAT of 19 percent. It would have been difficult to convince the public that the fees would not increase as a result of such a move. I, personally, though, believe that free competition would mean the fees would be kept down.



Holger Ellerbrock

REMONDIS aktuell: But until that actually happens, the different taxation laws for municipal and private businesses will continue to mean distorted competition ...

“Municipal-owned businesses are convinced that they work cost-effectively. I am, therefore, surprised that, when faced with the possibility of competition, they shy away from it.”

Holger Ellerbrock, environmental spokesman for the FDP provincial parliamentary party in the state of North Rhine-Westphalia

REMONDIS aktuell: Why are you so sure that the privatization option will become a reality at a later date?

Holger Ellerbrock: I am convinced that there will, anyway, be nothing more to be said about privatisation in two or three years' time, as clear instructions will have been given by Brussels that VAT must be paid by all service providers – no matter whether they are private or municipal businesses. As we are currently getting clear signals from Brussels, we wish to establish the privatization option in our state water law.

Holger Ellerbrock: Without a doubt. But we are heading in the right direction. We have, for example, ensured that the associations have not been given special privileges. It cannot be right that the associations are given privileges and first divide the market up between themselves. I personally am fighting for equal market conditions and I can even see there being discussions held on the question: why should private businesses not be allowed to have a share in associations?

REMONDIS aktuell: In your opinion, then, what are the advantages of privatization?

Holger Ellerbrock: The advantage of a privatization option is that we would succeed in achieving a comprehensible competitive situation as well as transparent services and costs – and in the council-owned companies, too.

This interview was held by Katja Dartsch



Curtain materials also undergo finishing processes at Blanke

Services for the industry

The finest of materials, clear water

WASTEWATER TREATMENT IN TEXTILE PROCESSING

The family-run company, Fritz Blanke Textilveredelung in Bad Salzufflen, finishes, laminates and prints the surface of textiles – for example, car seat covers, curtains and carpets. Around 2,500m³ of wastewater containing chemicals are one of the by-products of these production processes.

“The composition of the wastewater varies from day to day. Developing a suitable process to treat the production water was, therefore, particularly challenging for us,” explained Dr Martin Lebek, project manager at REMONDIS Aqua. In October, Fritz Blanke GmbH & Co. KG Textilveredelung commissioned REMONDIS with the task of treating its production wastewater.

Each year, the approx. 250 employees at Fritz Blanke Textilveredelung process around 1,600 tonnes of textiles for their customers from, for example, the automobile industry and fashion industry, as well as for manufacturers of decorative and home textiles and technical textiles. The company decided to look for a contracting partner to clean its wastewater in order to be able to concentrate more on its core business. REMONDIS succeeded in beating its competitors in the contract-award procedure. REMONDIS’ water treatment concept is based on a biological pre-treatment phase (fluidized

“We have implemented similar water management concepts within, for example, the chemical industry as well as the food, automobile and metal industries.”

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

bed biology) and a chemical-physical post-treatment stage. Fritz Blanke Textilveredelung has already had good experience of implementing contracting models: the operation of its boiler facilities, which are used to generate the required steam for the production activities, was handed over to a contracting partner two years ago. Andreas Blanke, managing director, said, “REMONDIS is a competent and experienced partner for wastewater treatment. We have, therefore, succeeded in reaching a further milestone in our efforts to concentrate on our core business areas.” *(dartsch)*



Services for event organizers

Moving forward at full speed

WAL-BETRIEB PROVIDES SERVICES FOR THE EUROSPEDWAY LAUSITZ



The Wasserverband Lausitz Betriebsführungs GmbH (WAL-Betrieb) is putting its foot on the accelerator: almost 12 months on since its foundation, the REMONDIS company has concluded a maintenance and service contract with EuroSpeed Lausitz GmbH.

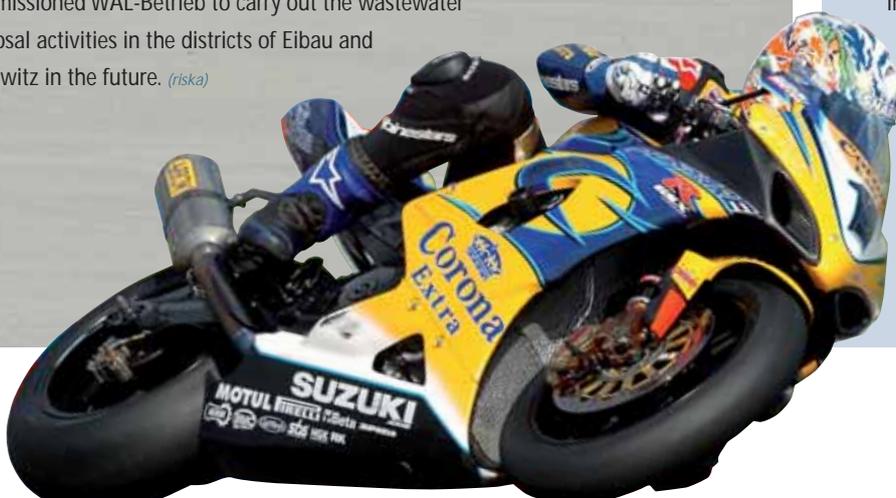
The Eurospeedway Lausitz, located 130 kilometres south of Berlin, is one of the world's largest and most modern motorsport and event facilities. The heart of the facilities, which cover a total of 370 hectares, is its 2-mile Superspeedway, an oval course built according to American models and which is unique in Europe. Besides being host to the German touring car series, the DTM, the EuroSpeedway is also one of the

Superbike World Cup courses. The stands can hold up to 120,000 spectators. WAL-Betrieb has now taken over the maintenance work of all the pump systems located on the site, including the pump system for watering the ABS track and the skid pads which are mainly used for road safety training. Furthermore, WAL-Betrieb is to maintain all collection and water disposal technology located at the racing track.



“I am very pleased that we have found a further regional and well-known partner, the Wasserverband Lausitz Betriebsführungs GmbH.” Hans-Jörg Fischer, managing partner of Eurospeedway Lausitz GmbH

WAL-Betrieb has also been successful in the so-called ‘3-country corner’ where Poland, the Czech Republic and Germany meet: the wastewater association in Oderwitz has commissioned WAL-Betrieb to carry out the wastewater disposal activities in the districts of Eibau and Oderwitz in the future. *(riska)*



Efficient management

The Zeulenroda water and wastewater association in the state of Thüringen is looking to use an even more efficient way to reach decisions concerning investments and renovation measures and to calculate its fees. It has, therefore, commissioned REMONDIS Aqua Services with the task of introducing a geographic information system (GIS). A wide range of data has been fed onto the database including information on the drinking water network – pipelines covering 200 kilometres – and the 100 kilometres of sewage pipelines. Thanks to this database, more efficient water management activities and decisions will be able to be carried out. *(kruschel)*

Compost from Kétpó

REMONDIS has won a contract to treat unpolluted sewage sludge in the Hungarian city of Miskolc. Compost will be produced from the sludge which will, above all, be used for recultivating old landfill sites. Each day, REMONDIS takes 60 to 100 tonnes of sewage sludge from the municipal sewage treatment plant in Miskolc to REMONDIS’ new composting plant in Kétpó. Up to 25,000 tonnes of sludge can be recycled each year.

(csocsán)

Twice the number of crisps

Lorenz Bahlsen Snack-World GmbH has, together with REMONDIS Aqua, put its new wastewater treatment facilities and biogas plant into operation at its factory in Neunburg vorm Wald in the state of Bavaria. The snacks producer had signed a contract with REMONDIS Aqua over a year ago in which REMONDIS took over the operation of all wastewater activities. In an interview with the Mittelbayerische Zeitung, Stephan Ludwig, managing director, described this moment as being a “very important step towards safeguarding the future of the site” and underlined the fact that “with the new situation, the crisps production can be doubled at any time”. Electricity consumption for the treatment facilities has been reduced by 30 percent and biosludge by one-fifth – in addition to this, one-fifth of the factory’s total electricity requirements will be covered by the plant. *(dartsch)*

Employee portrait

A knack for technology

NEW SORTING PLANT IN POZNAN HAS BEEN IN OPERATION SINCE OCTOBER

Zbigniew Biedermann's colleagues all know that he is a huge fan of anything remotely electronic. The 29-year-old is forever tinkering with electronic equipment in his free time. What's more he has succeeded in turning his hobby into his profession: Mr Biedermann is responsible for maintaining and operating REMONDIS' new sorting plant in the Polish city of Poznan.

The young father has been employed at REMONDIS for almost five years now. Over the last few months, he has spent most of time at the new sorting plant which was put into operation last October. Approx. 100,000 tonnes of municipal waste from Poznan will be sorted there each year. Recyclables such as plastic film, PET, glass and wood are separated from the rest of the material and fed back into the economic cycle as a raw material. Mr Biedermann is currently concentrating on regulating the speed of the conveyor belts. "Maintenance work and the number of shut-down periods can be minimized if the different speeds of the individual conveyor belts match each other perfectly," he explained. The plant will soon be operating 24 hours a day, 7 days a week – both a technical and a logistical challenge.

Having qualified as an electrician and electronics specialist, Zbigniew Biedermann set up his own business selling auto-

matic gates before then joining REMONDIS. His job begins each morning just before six when he walks around checking the plant before his colleagues arrive. "I love the work at the sorting plant as it is a great challenge to operate a new plant," he said. His colleagues say he has a knack for solving all kinds of technological problems. Welding work or building new machinery parts are no problem for him. "This sorting plant is unique in our region," he commented proudly.

However, despite his love and fascination for anything technological and electronic, Zbigniew Biedermann has had a new hobby now for exactly 19 months: when he leaves work he goes to the crèche to pick up his small daughter, Alicja. Playing with her, he admitted, is almost more fun than hobby electronics. *(plywaczyk)*



Zbigniew Biedermann is fascinated by technology.



Wage negotiations

Employees to receive a one-off payment

EMPLOYER AND EMPLOYEE REPRESENTATIVES REACH AN AGREEMENT

The Federal Association of the German Waste Management Industry (BDE) and the trade union, ver.di, have reached an agreement whereby the employees working within the water and environmental service branch are to receive a one-off sum of money.

The full-time employees working within the branch, who are covered by the collective wage agreement, are to receive a one-off gross payment of 490 euros backdated to the beginning of the year 2006. Trainees and apprentices are to receive a one-off gross amount of 120 euros for the year. This will mean that a total of approximately 70,000 employees within the branch will receive a one-off payment for the period May to December 2006.*

Andreas Oellerich, HR manager at REMONDIS, represented the company in the 'small bargaining committee'. He commented, "The negotiations proved to be difficult. But the result, which was reached after three rounds of negotiations, is acceptable as it takes into account the current situation in the water and environmental service economy."



Andreas Oellerich, HR manager at REMONDIS

Both ver.di and the BDE agree that new structures need to be negotiated next year. This means negotiations being held on a variety of agreements such as the industry-wide collective agreement. Mr Oellerich is optimistic saying, "An agreement will definitely be reached which reflects the current market situation.

Competition is becoming tougher and tougher. More and more companies are paying according to the wage agreements. Our employees must be paid the right amount for their work – but at the same time we must remain competitive to safeguard the jobs in our company. The wage agreements, therefore, must not become a competitive drawback." *(dartsch)*

* This agreement had been reached when REMONDIS aktuell went to press. It has yet, however, to be approved by the various bodies involved



The three new crime fighters in the Ruhr region: (from left to right) Lukas Gregorowicz, Sascha Soydan and Joachim Król

Filming work

Murder mystery in the Ruhr region

JOACHIM KRÓL ON LOCATION AT REMONDIS

Next spring, the German TV channel, ZDF, is showing a new murder mystery series. Detective superintendent Alex Lutter, played by Joachim Król, will be investigating murder cases in Essen and Cologne. Scenes were shot at REMONDIS' grounds in Essen for the first film of the series.

The new series, which is to be called "Lutter", is due to be shown on ZDF next spring. The exact date had not been released when REMONDIS aktuell went to print.

"And cut. We're done." The production manager is pleased with the last scene: the conversation held between the detective and the business boss are in the can. Joachim Król ("Most Desired Man", "Commissario Brunetti") and his team decide to take a coffee break. The scene is being held at an old trailer surrounded by old rusty cars. The camera team had the trailer and scrap vehicles delivered to conjure up a scrap yard scene. An industrial site and shaft tower are recognizable in the background – the old mine. The best possible backdrop for a murder mystery in the Ruhr region.

The filming work took several days to complete and a gun battle was also acted out at REMONDIS' Helenastraße grounds. Unlike the somewhat reckless 'Ruhrpot' detective, Schimanski',

Joachim Król plays a more sensitive character who is both understanding and determined – and a passionate football fan. In the series, he is helped by the public prosecutor, Yale Deniz (Sascha Soydan), and detective Michael Bergmann (Lukas Gregorowicz).

Andre Werlein, branch manager in Essen, said, "We were very happy to allow the ZDF to film at our grounds. There are not many sites left in the Ruhr region which are able to conjure up the old coal-mining atmosphere." Indeed, the camera team arrived only just in time: the current sorting plant for construction waste is to be shut down soon and the activities transferred to another REMONDIS location. Next year, the site is to be handed back to the landlord. *(dartsch)*

Source: ZDF/Michael Boehme

The region of sausage dishes and shoe factories

THE REMONDIS BRANCH IN PIRMASENS

Pirmasens is located in the south of the Rhineland-Palatinate, close to the French border and only 35 kilometres from the City of Kaiserslautern. A recycling company was founded there 58 years ago – a company which is today a REMONDIS branch.

Pirmasens lies at the edge of the Palatinate Forest, the largest forest area in Germany. 150 people work at REMONDIS in Pirmasens. With their fleet of 23 specialized vehicles and a great deal of commitment, they provide services for private households, commercial businesses and municipalities.

Thomas Sprau, branch manager, listed some of their activities, "We run a sorting plant in Zweibrücken and timber recycling at the Zweibrücken airport. Our larger clients include Opel in Kaiserslautern as well as DaimlerChrysler in Wörth, Gaggenau and Rastatt."

The people living in the Palatinate or Pfalz region are well-known for their kind nature as well as for their love of good food and drink. The specialities of the region include the 'Saumagen' (pig's stomach stuffed with minced pork and potatoes) and the 'Leberknödel' (liver dumplings). "The friendly

manner of a typical "Pfälzer" makes the work here very pleasant indeed. The atmosphere in the office is also very open and friendly," Thomas Sprau continued. REMONDIS employees, who do not come from the region, often have problems with the strong regional dialect even though it is a dialect which has spread around the world. Hundreds of thousands of Americans and Canadians, for example, still speak a dialect today which is very similar to that spoken in the Palatinate and which they themselves call "Deutsch".

What else is there to see in and around Pirmasens?

Mountains, castles, rocks, a forest – and many, many shoes. Pirmasens has been Germany's shoe centre for many years now. The city, with its 45,000 inhabitants, is home to companies such as Peter Kaiser, Kangaroo's and Caprice.

And they, too, are REMONDIS' customers. *(hunsicker)*

The love a person from the Palatinate has for their region goes "through their stomach": the World Cup Barbecue took place in Pirmasens in 2004.





Trade Fair

International exhibition flair

EUROPE'S TRADE FAIRS ARE REGISTERING MORE AND MORE VISITORS FROM ABROAD

The water and environmental service branch is becoming more and more international. Europe's large environmental exhibitions are further proof of this as the number of exhibitors and visitors from abroad continues to rise.

Practically every one in three of the overall 43,000 visitors to the ENTSORGA/ENTECO Exhibition in Cologne was not from Germany. They travelled from more than 100 countries including Southern and Eastern Europe, South America, Thailand and Japan. Exhibitors from 28 different nations presented their products and services. Egbert Tölle, a member of the board of directors at REMONDIS, was pleased with the outcome of the exhibition saying, "We were able to make new business contacts at the fair and it was also a good opportunity to meet up with people we already know. The large environmental exhibitions provide an excellent opportunity to extend international networks."

The number of foreign visitors to the POLEKO exhibition in the Polish city of Poznan, the largest environmental fair in Central and Eastern Europe, was also higher than in previous years – and the same was true for the Pollutec which took place in Lyon, France, at the end of November. Just under 1,000 exhibitors from 20 countries took part in the POLEKO including exhibitors from Australia, Japan, Spain and Switzerland. REMONDIS was awarded a prize at the POLEKO in recognition of the methods it used to implement its marketing concept (see p.25). *(dartsch)*



> Impressions



> Dual systems

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+ EKO-PUNKT® ensures that there is greater competition and uses disposal methods which are both efficient and cost-effective.

+ EKO-PUNKT® is a subsidiary of the REMONDIS Group, which collects light packaging from around 12 million citizens and has large sorting capacities at its disposal. The network means a reduction in costs - savings which we pass on to our customers.

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+ EKO-PUNKT® stands for individual prices which take the kinds of packaging and amounts of packaging to be licensed into account.

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