The company newsletter for REMONDIS AG & Co. KG www.remondis.de



1/2010

WASTE: A SOURCE OF RAW MATERIALS – GUARANTEEING SUPPLIES FOR THE FUTURE

Shortage of raw materials Waste is becoming the most important resource

Climate protection

Water and environmental service sector reduces the greatest amount of CO₂ in Germany

Russia

REMONDIS Aqua serving the community

Win win situation Slag reduces noise pollution

Contents



MEGATREND: SHORTAGE OF RAW MATERIALS

What many had expected to be a problem for future generations is approaching faster than we would like. There is already a shortage of important strategic metals such as indium and palladium as well as gold and copper. Indium, an essential metal for producing touch screens, will probably have run out by the end of this decade. As a result, waste will become the most important source of rare raw materials. **Page 4**



SUCCESS THROUGH PARTNERSHIPS

When money is tight for the state and local governments, many are grateful for innovative ideas and public-private cooperation projects. A genuine win win situation has been created in Kassel. In cooperation with REMEX's subsidiary BAUREKA, an earth wall has been built along the edge of the A44 motorway for the city council to reduce noise pollution for the local residents. The key: the core of the wall was made using incinerator slag from the municipal waste incineration plant. **Page 12**



REMONDIS IN RUSSIA

The Russian water management sector requires huge levels of investment. It will be practically impossible to modernize the plants and operate them efficiently on a long-term basis without the help of competent private-sector partners. The Russian City of Arzamas has recognized the signs of the time and founded a joint PPP with REMONDIS Aqua for its water and wastewater management business. **Page 22**

NEWS _

- 4 Standards of living must be maintained
- 6 More recycling Less CO,
- 8 Odessa chooses REMONDIS as its partner
- 9 TSR embarks on a new path for its raw material trade
- 10 A merger with guaranteed success
- 12 Slag brings peace and quiet
- 14 Appreciation of value means added value
- 16 Letter of condolence to the Polish Ambassador in Berlin, Dr Marek Prawda
- 17 Long-term commitment for the Turkish environmental service sector
- 18 Pipe network under control
- 19 10 years of stable rates & charges thanks to WAL-Betrieb
- 19 Quality seal awarded for maintenance work carried out on small sewage treatment units
- 20 The whole of REMONDIS with just one click
- 21 REMONDIS Aqua's new head office the construction principle: sustainability

REMONDIS | WATER RESOURCES MANAGEMENT

- 22 REMONDIS enters the Russian water management sector
- 24 REMONDIS Aqua in Spain growth through more water

REMONDIS | ENVIRONMENTAL SERVICES

- 26 A growing market for recycled plastics
- 28 Working in the Baltic
- 30 Everything under control
- 32 Heat from wood chippings
- 34 Clean boilers perform better
- 36 ILLUMIN[®] a great fire for a better atmosphere
- 37 From flue gas to flowing screed
- 38 A great start to the day
- 39 Energy from waste
- 40 Social commitment
- 40 Norbert and Irmgard Rethmann receive Siemerling Social Prize
- 41 IFAT

PEOPLE

- 42 REMONDIS' Iron Man
- 43 Impressions

Impressum

Editor: REMONDIS AG & Co. KG, Brunnenstr.138, 44536 Lünen, Germany Tel.: +49 2306 106-515, Fax: +492306 106-530, www.remondis.com, info@remondis.com Press officer: Michael Schneider Layout: www.atelier-14.de Print: Lonnemann, Selm, Germany



Bernhard Heiker, REMONDIS Board Member

EDITORIAL

Dear Readers!

Whilst the whole world is wondering whether the slight trend towards economic growth is the beginning of a longterm economic recovery, raw material prices are already increasing revealing once again a problem that had receded into the background in the face of the global financial and economic crisis. Even if the economic fluctuations have temporarily reduced the global demand for such materials, one trend remains the same: raw materials are becoming scarcer and scarcer! A look at the supplies of certain natural resources reveals that this is not some abstract problem for the far-off future but an immediate problem for our export-oriented economy. According to conservative estimates, indium, a rare metal essential for the production of flat screens and touch screens, will have run out within the next six to ten years. Forecasts estimate that crude oil, which is not only used as a source of energy but is indispensable as a raw material for the plastics industry, will last for a further 64 years. Natural supplies of lead and zinc will have been used up in a good twenty years. And even the mining of copper, without which electrical equipment cannot function, will have to be closed down in around 30 years unless new natural supplies are discovered. With this in mind, countries in Europe, which do not have large supplies of natural raw materials, will find themselves facing great challenges. And yet, we do have a source of raw materials that already contains these and many other materials: waste.

The Federal Ministry for the Environment (BMU) is currently working on an amendment to the Law on Life-Cycle Management with the aim of adopting the five-step waste hierarchy of the European Waste Directive and increasing the rate of material recycling. A reliable means of achieving this would be to introduce the so-called recycling bin as an alternative to the "yellow bin" for waste sales packaging. Local residents already find it hard to understand why empty plastic packaging can be put in the "yellow bin" but not toys made of the same material, why the aluminium lids of yoghurt pots belong in the bin but not old aluminium saucepans. If the aim for the future is to collect and return more secondary raw materials to the economic cycle than is currently the case, then a good start would be to use the recycling bin in which not only packaging materials but also non-packaging of similar material can be collected. The target rate of 65% for material recycling set by the BMU could, however, be even higher. The German water management and environmental service sector already stands out today with a recycling rate of 63%. There must, therefore, be room to increase it even more. Indeed, according to one of the latest studies published by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the German water management and environmental service sector reduced the amount of CO₂ equivalents by just under 18 million tonnes in 2006 alone making it one of the few branches to have changed from emitting CO, to cutting CO, levels in just one decade. This, too, is a good reason for increasing all efforts to achieve more material recycling.

Politically, though, there are still many issues that need clarification. A good 40 million tonnes of municipal waste is generated in Germany each year. If, in the future, more material from this material stream is recycled, then, at the same time, less waste will end up in the bin for residual waste. What effect will this have on municipal waste charges? And what about the incineration plants, of which we already have too many? And how should the collection of those recyclable materials, which are not licensed sales packaging, be financed? The final bill must have been completed by the end of this year. This year promises, therefore, to be very interesting.

We also hope that you find this edition of the REMONDIS aktuell just as interesting.

ny fletur

Yours Bernhard Heiker

Sustainability

Standards of living must be maintained

WITH RESOURCES DWINDLING, RELIABLE ALTERNATIVES MUST BE FOUND

Experts have issued a warning: the Earth's natural resources may run out earlier than expected. Some metals, including essential base materials, may even have been exhausted by the end of this decade. This increases the need for action, because today's standard of living will not be able to be maintained without these important raw materials.



Global population growth and the upturn in emerging countries – these are the main reasons given for the increased demand for primary raw materials. Advances in technology, however, are also pushing up demand. A study carried out on behalf of the Federal Ministry of Economics reveals just how great an influence future technology will have. Thus, for example, in 2030, three times the amount of indium currently needed for global production will be required for screens and solar cells. This is, however, a very rare metal and, at the current rate of use, will only last for few more years.

Dependency and uncertainty

Indium is an extreme example but it is not an isolated case. The current supplies of some metal mass raw materials such as copper will have run out within 50 years. Last but not least, the natural supplies of many raw materials are found in just a few countries, which are often in unstable regions. Over 70% of indium reserves, for example, are located in China. And the crisis-ridden countries, Congo and Zambia, mine more than half the world's production of cobalt.

If the supply of metal raw materials is no longer possible or only available at great cost, then this will have very serious consequences: everyday goods will become rare or far too expensive. If supplies of indium run out then this will not only effect computers, mobiles and TVs but also industrial monitors, medical equipment, thermostats, adhesives, light diodes, lasers and much, much more – up to and including dentures.

Keeping recyclables available

The wide range of use of many raw materials makes it clear just what the consequences could be if they were no longer available. And just how important it is to act now. The search for alternative supplies of raw materials is directing attention to another source: old landfills. In the USA alone, for example, it is estimated that 56 million tonnes of copper are lying in landfills, almost four times the amount being mined each year. It is currently being considered whether to retrieve this "second source". Instead of digging it up again, it would be simpler to safeguard the valuable materials located above the ground – through consistent recycling.

The recycling of electronic equipment shows just how effective it can be to close life cycles. There may only be just a few milligrams of rare metals in each individual piece of equipment but, put in a global perspective, this adds up to a huge amount. An example here is palladium, a metal that, according to the Institute of the German Economy, is in great danger of running out. If the palladium were to be extracted from the computers sold around the world once they become obsolete, then 24 tonnes could be recovered. Around 11% of the global annual production of primary palladium could, therefore, be substituted by recycled material. Each year, REMONDIS returns 9 million tonnes of metal to the production cycle – from simple scrap steel to precious metals or rare platinum-group metals.

Production activities based on secondary raw materials are considerably more energy-efficient. Consistent recycling, therefore, also helps to protect the climate.

Initiative for greater fairness

Responsible recycling activities also support the fair distribution of natural resources. Industrial nations currently use far more than their fair share of the supplies. Although only 20% of the world's population live in these countries, they consume 80% of the raw materials mined around the world. At the moment, the high consumption of rich countries is counterbalanced by the low demand in poorer countries. This system, however, is shifting. Thus, a study published by the Fraunhofer Institute for System and Innovation Research ISI has concluded: "It is impossible to imagine a conflict-free future in which the developed regions continuously increase their wealth and poorer regions remain at their current level."

limate protection

More recycling – Less CO₂

REMONDIS IS ALSO WORKING TO PROTECT THE CLIMATE ON LAND, WATER AND FOR THE AIR

The contribution made by the German environmental service branch towards protecting the climate is more than impressive. Over the last 15 years, the branch – with its approx. 250,000 employees and annual turnover of just under 50 billion euros – has reduced CO_2 equivalent emissions by around 56 million tonnes. This is the equivalent of just under a quarter of the total amount of CO_2 reductions, namely 235 million tonnes, achieved in Germany. This reduction of greenhouse gases achieved by the environmental service branch, therefore, is the equivalent of 20% of the exhaust fumes emitted by all cars in Germany. This figure could be increased even more in the future if the recycling bin were to be introduced across the country and the potential of the water management and environmental service branch to cut CO_2 emissions were used to its full.

The branch has invested 30 billion euros in protecting the climate and resources. The results of a new study on "The Potential of the Waste Management Industry to Protect the Climate", which was carried out on behalf of the Federal Association of the German Waste Management Industry (BDE), the Federal Ministry for the Environment (BMU) and the Federal Environmental Agency (UBA), were presented in Berlin in January. The study, which was carried out by the Darmstadt "Eco-Institute" and the Institute for Energy and Environmental Research (ifeu) Heidelberg, reflects on the great performance of the waste management, water and recycling sectors over the last 20 years as well as on the potential for further development. The successes achieved by the branch in cutting greenhouse gases are based on its investments in state-of-the-art technology and plants on which the companies have spent around 30 billion euros over the last two decades.

During the presentation of the study, Jochen Flasbarth, President of the UBA, underlined the high level of success of the waste management and recycling branches and their contribution towards ensuring Germany reaches it targets on climate protection: "The waste management industry has undergone an impressive transformation – it has changed from being a source of greenhouse gas emissions to cutting emissions. Against the backdrop of the disastrous experiences we had in Copenhagen, this is an important signal. This shows that we, too, can achieve ambitious targets when it comes to protecting the climate."



"If all areas of the water management and environmental service sector are taken into account, then around 15% of the amount of greenhouse gas reductions achieved by the branch can be put down to REMONDIS."

Ludger Rethmann, REMONDIS Board Chairman

Germany is the "World Champion in Recycling"

The considerable reduction in greenhouse gases achieved by the environmental service branch can be put down to two main factors: on the one hand, the introduction of the 'Technical guidelines for the treatment and disposal of municipal waste' (TASi) and the law passed in 2005 forbidding all German landfills to accept untreated waste, and, on the other hand, the high performance of material and energy recycling systems compared to other countries. An international comparison reveals that Germany has the highest recycling rates. A good 90% of waste paper and old glass is sent for material recycling. The rate for waste metals lies at 74% and 64% of all plastic packaging is returned to the economic cycle. If all opportunities are fully exploited, then in 2020 every seventh tonne of greenhouse gas cut in Germany will have been achieved by the water management and environmental service sector. REMONDIS board member, Ludger Rethmann, stressed the contribution of the company towards the climate protection goals already reached: "If all areas of the water management and environmental service sector are taken into account, then around 15% of the amount of greenhouse gas reductions achieved by the branch can be put down to REMONDIS."

One precondition for using even more of the potential to protect the climate is the creation of political framework conditions which lay down specific goals. The draft of the new Law on Life-Cycle Management, which was presented in the middle of March, is a first step in the right direction. It remains, however, too vague when specifying important measures and could also result in a new potential for conflict within the branch, for example, concerning the issue of responsibility and financing of alternative waste collection models. One thing is certain: if the ambitious climate protection targets are to be reached, the right course must be set to further extend the separate collection of recyclables from households. In the opinion of REMONDIS, the BDE and the majority of the branch players, this means introducing a recycling bin across Germany for the collection of packaging, non-packaging of similar materials and small electronic appliances. This decision, which has already been made in the coalition agreement between the CDU/CSU and FDP, must be implemented quickly. The environmental study, "The Potential of the Waste Management Industry to Protect the Climate", shows that emissions can be cut by a further 92% if a recycling bin is introduced throughout the whole of the country and as many of the recyclables as possible are used efficiently. If the whole of Europe were to introduce a strict ban on untreated waste being taken to landfill as found in Germany, Austria and Switzerland, then greenhouse gas emissions could be reduced by 110 million tonnes. This is the equivalent of all CO, emissions of countries such as Norway and Sweden put together.

Introducing the recycling bin could almost double potential savings.

"If all opportunities are fully exploited, then in 2020 every seventh tonne of greenhouse gas cut in Germany will have been achieved by the water management and environmental service sector."

Peter Kurth, BDE President

Furthermore, the BDE is calling for the strict implementation of the European Waste Directive in all EU States. BDE President Peter Kurth: "The Directive stipulates that each EU member state must be recycling 50% of its residual waste by the year 2020. If this is achieved, then 90 million tonnes of CO_2 emissions could be cut across the EU." The BMU, therefore, believes that Germany is playing a pioneering role. For companies such as REMONDIS, these ambitious regulations will mean a further potential for growth across Europe.

Odessa chooses REMONDIS as its partner

THE UKRAINE'S MOST IMPORTANT PORT CITY DECIDES TO WORK WITH A PRIVATE-SECTOR PARTNER

Odessa is considered to be one of the Ukraine's prettiest cities on the border between the Orient and Occident. This important port city was founded by Catherine the Great in 1794 to create a marine location for the Black Sea and neighbouring Mediterranean region. Since then, Odessa has become one of the most important commercial ports in Eastern Europe and now has more than a million inhabitants. A maritime area of such a size needs a high performance environmental service branch in order to safeguard the quality of life of the local inhabitants as well as – looking to the future – to catch up with European standards. The city has now found the right partner with REMONDIS to fulfil these aims.

The 24th January was an important date for REMONDIS Ukraine. On this day, the special white vehicles with the red REMONDIS logo began helping the Odessa authorities to make their city cleaner. The company now collects waste from Primorsky Rajon, the central city district that lies directly by the sea and has over 150,000 local residents as well as a great concentration of business customers, authorities and Melitopol administration offices run by the city.

For the first phase of the project, REMONDIS has started using three rear-loader collection vehicles in Odessa with a collection volume of 23m³. A total of 780 containers have already been distributed around the city district of Primorsky; a further 400 containers will be made available to the municipal utilities. Around 30,000m³ of municipal and commercial waste is generated in Primorsky each month. The service contract between the city's municipal company "Odesakomuntrans" and REMONDIS Ukraine GmbH has been concluded for a period of 5 years. REMONDIS Ukraine's long-term plans are to found a joint venture with the city authorities as well as to introduce a separate collection system for solid household waste and to install a corresponding sorting line.



During a press conference, the mayor of Odessa, Eduard Gurwiz, stressed the importance of the partnership for his city: "We are really pleased to have entered into this partnership, for it not only involves vehicles and containers, but also the whole range of technology – from the collection and transport of the waste to the recycling of the materials. We see Odessa as a European city and so we wish to implement European waste collection and recycling standards here, too."



Stefan Kresse, managing director of REMONDIS Ukraine GmbH

Kiev

Odessa

Cherkassy

Sevastopol



Metal recycling

TSR embarks on a new path for its raw material trade

USED METAL IS BECOMING MORE AND MORE IMPORTANT FOR TSR - THE METAL COMPANY

TSR has responded to the high demand for declassified steel on the Asian markets. As a result the REMONDIS subsidiary has tapped into a new business field which is also strengthening TSR's export activities.

Metal recycling is one of the oldest and most efficient forms of recycling and plays an important role in conserving raw materials in a sustainable manner. Germany, having been the export world champions for many years and, at the same time, being a country with few natural supplies of raw materials, is particularly dependent on the recycling of and trade in secondary raw materials. TSR is constantly working on making metal recycling even more efficient and, at the same time, entering new international markets.

With this backdrop in mind, TSR is increasing its activities in a new market segment. With a group of specialists for so-called used metal, also known as declassified steel products, trade is being carried out with all kinds of declassified steel from coil to pipes to steel girders. The newly created central department at TSR has been intensifying its trading activities with this material since 2009. Depending on the condition of the used metal, it is divided up into the quality categories 2a to 4a. The majority of customers purchasing the gualities, 3a and 4a, are located in Turkey, Pakistan, India and China. Trade in Europe is, for the most part, limited to material corresponding with the 2a quality and such materials are primarily exported to Italy, France, Spain, Denmark and the Benelux countries. 90% of the materials sold are exported abroad. Only 10% is traded in Germany. The reason for this is the high level of automation used

to produce high-tech products in Europe. Although Asia is catching up rapidly, many standard products are still manufactured there using conventional methods. Declassified steel is absolutely suitable for many of these products – from the Chinese wok to road signs in Anatolia to ploughs in India to simple fridges produced in Pakistan. Thanks to this market segment, customers from all around the world are able to purchase raw materials at favourable prices and can, therefore, sell their end products made from this material at consumer-friendly prices.

TSR is not intending to concentrate only on individual, specially sorted steel products but to extend its activities to include all available kinds of metal that have different production defects or other kinds of faults. By improving its rate of recycling, TSR is also making an important contribution towards achieving the sustainable conservation of natural metal resources – a raw material segment which will become ever more important in the coming years as the natural supplies become even scarcer. Supplies of some strategic metals, such as indium, are already becoming scarce and are expected to have run out in less than ten years. The result: those who fail to make the best possible use of their local source of scrap metal will find themselves having difficulties on the global market in the future.



THE METAL COMPANY

Used metal is becoming more and more important for the global market.

REMONDIS[®] GELSENWASSER



Public Private Partnership .

A merger with guaranteed success

WIRTSCHAFTSBETRIEBE SELM UNITES THREE STRONG PARTNERS



Comprehensive services from just one company – a promising joint venture has just begun business in the Münsterland region with this aim in mind. The City of Selm, Gelsenwasser and REMONDIS have united their areas of expertise and founded Wirtschaftsbetriebe Selm as a public private partnership.

The goal of Wirtschaftsbetriebe Selm is to offer an integral range of services in the area of supply and disposal. The portfolio includes the supply of electricity and gas as well as future-oriented waste management services. Furthermore, various municipal services will be carried out by the company, including the maintenance and care of green areas, the maintenance of sports grounds and playgrounds as well as road-cleaning tasks and similar services. Last but not least, the PPP project is focusing its attention on the energy sector.

Setting the course for the future

The speed in which the start-up phase was completed gives a taste of things to come and of the high level of perform-

Public private partnerships open up great advantages for small towns, too.



ance of the partnership: recently founded and effective from 01 January 2010, the first vehicles of the Wirtschaftsbetriebe should be on the road in the city within just a few months. Even in the start-up phase, REMONDIS has been able to bring in its many years of experience from comparable projects. Thus, right from the very beginning, efficient business processes will be set up all along the supply chain and, with the help of the local authorities, be adapted to the regional specifics.

Uniting strengths in a targeted manner

The City of Selm is the majority shareholder in the new PPP. Its private-sector partners, Gelsenwasser and REMONDIS, each hold a 24.5% share. The mayor of the city, Mario Löhr, welcomed the cooperation seeing it as the most promising way to strengthen Selm's economy in a sustainable way and pointed out the tangible benefits for the city's inhabitants: "The merger will mean long-term, stable costs for our local inhabitants. There will, therefore, be no price increases for the services we provide."

In good company

Public private partnerships are a successful business model which is growing in importance more and more. REMONDIS board chairman, Ludger Rethmann: "By working together,

Where everything began

Selm and REMONDIS are united by a shared history. Almost 75 years ago, Josef Rethmann set up his own business as a haulage contractor laying the foundation stone for the REMONDIS Group. By purchasing a haulage business in the city, he took over his first waste management contract: collecting rubble and ash using, at that time, a horse and cart. In 1959 – also in Selm – the company entered the era of the automobile. Josef Rethmann was commissioned with the "dust-free collection of waste" in Selm and purchased his first special vehicle to collect residual waste.

public and private-sector partners can complement each other in the best possible way. As a result, our PPP projects stand out again and again thanks to their high levels of dynamism created through the joint activities, especially profitability and high standards of performance."

Prominent examples of the Wirtschaftsbetriebe can be found in many European countries, all German regions and in the immediate vicinity. Two PPPs, just a few kilometres away from Selm, have already made a name for themselves: Wirtschaftsbetriebe Lünen (WBL) and Wirtschaftsbetriebe Oberhausen (WBO). Both were set up around ten years ago and have, in the meantime, become beacon projects for the region. REMONDIS' parent company, RETHMANN AG & Co. KG, is based in the City of Selm with its 27,000 local inhabitants.



Signing of the contract in Selm: Mayor Mario Löhr (centre) with Dr Bernhard Hörsgen, board member of Gelsenwasser AG (left), and Ludger Rethmann, board chairman of REMONDIS AG & Co. KG.

Slag brings peace and quiet

NO MATTER WHETHER IT IS THE LOCAL GOVERNMENT, LOCAL RESIDENTS OR THE BUILDING CONSORTIUM – THEY ARE ALL WINNERS WHEN IT COMES TO THE BUILDING OF THE EARTH WALL ALONG THE A44 MOTORWAY IN KASSEL

Some tasks appear to be practically insurmountable. On the one hand there were the local residents living close to the A44 motorway in Kassel who wanted an effective solution to reduce the noise pollution and, on the other hand, the city – as with many other local governments – which had to keep a close eye on their finances. And then there was also the waste incineration plant that had to recycle its slag in the cheapest and most environmentally friendly way possible. The department responsible for the environment and parks in Kassel found the ideal solution together with the REMEX subsidiary, BAUREKA, and two other companies. The result: peace and quiet for the local residents, absolutely no additional costs for the local council and an environmentally friendly and local solution for recycling the incineration slag in Kassel.

Mineral recycling sector continues to be a success

Environmental services .

REMEX S

Despite the fact that the construction sector suffered a difficult year in 2009 as a result of the financial and economic crisis, the mineral recycling division in the REMONDIS Group was able to assert itself in the market and grow thus bucking the trend. Within the REMONDIS Group, this division, with its three fields of business: mineral collection & recycling, remediation services and production of recycled construction materials, is primarily in the hands of REMEX and its subsidiaries and associated companies. Growth has, for the most part, been achieved through strategic takeovers in the area of construction material recycling as well as through founding new branches in other European countries. At the same time, the company's own research activities have been intensified in order to be able to further increase the recycling rates of mineral waste in the future. Last year, REMONDIS bought one of the largest mineral recycling businesses in the east of Germany, Berlin-based EMIX Mineralstoffe Berlin GmbH. Each year, EMIX "moves" approx. 1.5 million tonnes of materials in Berlin alone. The services, which have now been fully integrated into It used to be pretty noisy for those living close to the South Kassel motorway junction on the A44 in the direction of Dortmund. There was just one empty field between the homes of those living in Kassel-Mattenberg and the busy stretch of motorway. The noise from the motorway traffic could be heard day and night - sometimes louder, sometimes quieter depending on the direction of the wind. The only possible solution was to build a modern noise barrier along the edge of the motorway. Such projects, however, are generally expensive and put additional pressure on the public purse. Together with the department responsible for the environment and parks in Kassel, a work group consisting of REMEX's subsidiary, BAUREKA Baustoff und Recycling GmbH, Schnittger Erdbau GmbH and EUROVIA Teerbau GmbH, drew up a solution which was then implemented between 2004 and 2009. ARGE built a noise barrier along the edge of the motorway which is 650m long, 40m wide and 16m high and shields the residential area from the noise.

The core of the noise barrier contains 95,000 tonnes of compacted earth substitutes. These substitutes are specially treated slag from the nearby waste incineration plant in Kassel. The short distance from the incineration plant to the construction site also helped to protect the environment as there was no need to undertake long, CO_2 -intensive transport routes. Around 800,000 tonnes of different quality earths were processed and then used to cover the subsoil and seal the wall. Having added the earths using bulldozers, the wall was then completed by adding cohesive soils and a layer of soil allowing plants to grow on the surface. The local residents in Kassel-Mattenberg have now been



enjoying the peace and quiet since the middle of 2009. Those living in Kassel-Wilhelmshöhe must wait a little longer. The department responsible for the environment and parks in Kassel has also commissioned ARGE to build a noise barrier here. It will be even bigger: 150m wide and 25m high and should have been completed by 2016. The construction principle will, however, remain the same. Similar to the way dykes are built along the coast, different layers of soil will be laid on top of the core of the wall which again will be made using incineration slag from Kassel's waste incineration plant. Only the wall will not be shielding the homes from floods but from the motorway noise. The noise barrier project in Kassel is an example of how the public and private sectors can work together successfully. The construction costs are financed by the disposal of the slag, the council has no additional costs and the local residents get a noise barrier greatly improving the quality of life in their district. REMEX and its subsidiary BAUREKA have played a considerable role in this project.

An aerial photo of the earth wall along the A44 motorway near Kassel-Mattenberg during the construction phase.



Berthold Heuser, an authorized signatory of REMEX Mineralstoff GmbH

the portfolio, include, besides disposing of and recycling construction rubble, recycling earth and soils, supplying the construction industry with mineral building materials such as sand, gravel, stone chippings and mixtures of aggregates, supplying materials to build environmentally friendly landfills as well as providing mobile dosing and crushing technology including all relevant logistics processes. During the second half of 2009, REMONDIS' subsidiary, REMEX CONMIN GmbH, took over Bilfinger Berger Entsorgung Süd GmbH, a company based in Mannheim, from Bilfinger Berger Entsorgung GmbH. By taking over the activities at the company's mineral recycling centre in Mannheim's commercial port and its construction waste recycling plant located at the Friesenheimer Insel landfill within the framework of ARGE Baustoffe Rhein-Neckar, REMEX CONMIN is continuing to extend its market presence in and around Mannheim in the areas of mineral disposal services, remediation services and production of building materials as well as in the area of recycling mineral waste and industrial by-products. Public Private Partnerships

Appreciation of value means added value

WORKING TOGETHER ON A BASIS OF TRUST FOR LONG-TERM SUCCESS

Public private partnerships not only enable rapid progress to be made but are also successful models that can be run on a long-term basis. The showcase project being carried out in Stettin demonstrates what can be achieved by working together. REMONDIS Szczecin, which was founded 17 years ago, not only provides exemplary services in the area of waste management and town maintenance but also promotes environmental awareness. This pushes forward change and ensures positive long-term changes can be achieved.

> From collecting recyclables to processing waste to cleaning roads and providing a winter service – REMONDIS Szczecin is appreciated by all: the local residents, the local authorities and the local businesses



Comprehensive know-how, modern vehicles, innovative technology: Stettin benefits from working together with REMONDIS.

At the beginning, the work involved the fundamental modernization of the waste management systems as well as setting up high performance infrastructures. Step by step, different processes and technologies were introduced into this port city with its 400,000 inhabitants allowing new standards to be reached. As time progressed, so it became clear that the cooperation work between the local government and REMONDIS was far more wide-reaching than originally expected: each optimization stage further increased the reputation of the joint venture business. "REMONDIS Szczecin has become an integral part of the town's life. At the same time, the positive changes have promoted a new attitude. More and more, those living and working here have realized just what advantages the company offers and would like to make personal contributions towards achieving even more improvements," explained Ronald Laska, managing director of REMONDIS Szczecin.

Recycling sector is making rapid progress

As the reputation of the PPP company has grown, so it has succeeded in gaining an ever stronger position on the market. Just as is the case for firms and businesses, local inhabitants in Poland can choose which company should collect their residual waste and recyclables. REMONDIS Szczecin is way ahead of its competitors. It has a 50% market share in the sector for municipal waste from companies, housing associations and private households. And the PPP is the no. 1 company for collecting recyclables. Besides being in charge of 2,000 containers located around the city, REMONDIS Szczecin also serves a growing number of detached homes who have joined a collection system.

Work from neighbouring regions help to improve control over volumes and material streams

Municipal authorities are fully served by the company; the

PPP carries out 100% of the road-cleaning tasks and 70% of the winter services giving it a leading position. "There is no guarantee that the joint venture will be awarded municipal contracts. In fact, we must provide proof of our profitability and the strength of our services with each new tender," continued Ronald Laska. The company's expansion throughout the region is proof of their success. As a result, REMONDIS Szczecin is now active beyond the city's boundaries and serves other cities in the Westpommern region.



Ronald Laska, managing director of REMONDIS Szczecin

New location with a recycling plant planned

Dialogue between the public and private sector shareholders was good right from the very beginning and has got even better as the years have gone by. One reason for this is the successes they have enjoyed together. And now, 20 years on, this cooperation is entering the next stage. A new location has already been found that will not only house the administration offices and operations but will also provide space for a new workshop, sorting facility, transfer facility and recycling plant. The strong partnership between Stettin and REMONDIS, therefore, not only has a long tradition but also a very promising future. Public private partnerships are also the ideal solution in Poland for creating a responsible waste management sector and providing the best possible services for the local communities. The letter of condolence sent to the Polish Ambassador in Berlin, Dr Marek Prawda, following the death of President Lech Kaczyński, his wife and a delegation of high-ranking Polish dignitaries.





Mercedes-Benz in Hosdere is counting on REMONDIS' recycling expertise.

Turkey

Long-term commitment for the Turkish environmental service sector

MERCEDES-BENZ CONTRACT PUSHES FORWARD EXPANSION IN TURKEY

Mercedes-Benz is pushing forward ecological progress in the bus construction sector with its innovative petrol-saving technology. Thanks to REMONDIS, the best possible results, as far as sustainability is concerned, are now already being achieved during the production process at the Turkish Mercedes site in Istanbul (Hosdere). The contract for disposing of waste from the plant is a further step for REMONDIS increasing its activities in the Turkish waste management sector.

The name REMONDIS is by no means unknown in Turkey. The company has especially made a name for itself in the water management sector on the Bosporus. REMONDIS Atık, a subsidiary founded in the middle of last year, is now looking to convince Turkish customers of the quality of the company's services in the area of waste management. "Mercedes is an excellent reference for us and it will help us to acquire further customers," believe both Emin Bakalci, managing director of REMONDIS Atık, and project leader Murat Bodur.

The best possible recycling methods are required The recently built bus construction plant in Hosdere is one of the most environmentally friendly of its kind. With a workforce of over 2,300 people, Mercedes-Benz can produce up to 3,000 buses (four different models) each year on the premises which cover 360 square kilometres. This means it needs the complete recycling portfolio offered by REMONDIS: recyclables such as packaging materials, wood, plastics, metals and textiles are collected separately and then, having been processed, are returned to the material cycle. At the same time, REMONDIS deals with the residual waste generated including hazardous waste. Besides involving the plant, the contract also covers the head office which is located five kilometres away, the marketing centre, workshops and the logistics warehouse. There were, in particular, three main deciding factors that led to REMONDIS being awarded the contract: its high recycling rates, its reliability and its many years of leadership when it comes to innovations. "We are very pleased to have REMONDIS as our partner as it stands for high performance and quality and offers us the best possible service for all waste management matters. REMONDIS will ensure that we have a sustainable waste management system in the future," explained Klaus Pfeifer, plant manager of the Mercedes factory. REMONDIS has been active in Turkey since the end of 2007 and operates, among others, water and wastewater plants on behalf of municipal clients.



Latest news

Pipe network under control

REMONDIS AQUA COLLECTS DATA ON THE WATER AND WASTEWATER PIPE NETWORK IN GRANSEE

If local authorities are to be able to supply drinking water and treat wastewater efficiently, then it is essential that they have the best possible overview of the whole of their pipe network. What once involved laborious work by hand using printed survey plans, can nowadays be carried out using modern geographic information systems. REMONDIS Aqua Services GmbH is now in the process of collecting all data on the local drinking water and sewage pipe network for the Lindow-Gransee water and sewage board in Brandenburg.

Location, material, age and size of the pipes: there is direct access to all this information. REMONDIS Aqua was awarded the contract in January having taken part in a national tender and beaten the six other competitors. The project is being funded by the German state of Brandenburg and involves collecting the data and then transferring it into a modern geographic information system (GIS). All the information about the water and sewage pipes in Lindow-Gransee will be transferred from analogously scanned plans as well as from plans with the outdated dxf format and then geo-referenced, i.e. it is assigned to its exact location. The parameters that are collected and placed in a database include the age, material, dimensions and location of the underground pipes and fittings. The pipe network consists of around 117km of sewage pipes with household connections as well as approximately 110km of water pipes with the corresponding household connections. Project leader, Stefan Hamann from REMONDIS Aqua, explained the advantages of having the data collected centrally in a geographic information system: "The advantages for the Lindow-Gransee water and sewage board are that, once the data has been transferred into the GIS, all operational data on the drinking water supply and wastewater treatment can, in the future, be centrally controlled and secured and can be accessed quickly at any time. As a result, work processes can be optimized and costs reduced."



Water resources management

10 years of stable rates & charges thanks to WAL-Betrieb

POLITICIAN SPEAKS ABOUT THE SUCCESSFUL PUBLIC-PRIVATE COOPERATION WORK

Ms Katerina Reiche, Parliamentary State Secretary in the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, recently paid a working visit to Wasserverband Lausitz Betriebsführungs GmbH (WAL-Betrieb) in the lakeside city of Senftenberg.

The topic of conversation between REMONDIS Agua managing director, Andreas Bankamp, WAL-Betrieb managing directors, Marten Eger and Karin Rusch, and CDU MP, Michael Stübgen, was the successful business operating models in the water management sector using the Lausitz Water Board (WAL) as an example. For ten years now, the water board has succeeded in keeping water rates and sewage charges at a stable level in its region despite its declining population and the fewer number of homes being built. The main reason behind this long-term, successful stabilization of the rates and charges was the decision to award a contract to REMONDIS Aqua's subsidiary, WAL-Betrieb, in 2006 to manage both the technical and commercial business operations. Operative costs were able to be reduced considerably by creating more efficient organisational structures, developing new fields of business and extending the company's activities to other regions. WAL has been able, therefore, to make a great contribution towards minimizing costs. Other topics



of conversation included the role of WAL-Betrieb's Senftenberg Training Centre and its involvement in ongoing international development projects run by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. The successful expansion of its activities to include other regions has meant that WAL-Betrieb has not only safeguarded the jobs of those working in Senftenberg but also expanded its workforce over the last four years.

Parliamentary State Secretary in the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Ms Katerina Reiche, together with REMONDIS Aqua managing director, Andreas Bankamp, WAL-Betrieb managing directors, Marten Eger and Karin Rusch, and CDU MP, Michael Stübgen.



Quality seal awarded for maintenance work carried out on small sewage treatment units

WAL Betrieb was once again awarded with accreditation from the German Association for Water, Wastewater and Waste (DWA) in February for the maintenance work it carries out on small sewage treatment units. The company is, therefore, one of just four accredited maintenance firms in Brandenburg. The accreditation process not only involved an inspection of the technical and measuring equipment but also an evaluation of the knowledge of the staff and a practical test. Both its cooperation work with the regional water authorities and the decentralised sewage treatment services it provides in districts not connected to the mains were also highlighted in the final report. To receive a permit to own and operate such a unit, regular documentation of the maintenance work carried out on the small sewage treatment units must be drawn up by accredited specialist firms. "The WAL-Betrieb employees have in-depth knowledge of maintaining small sewage treatment units and have demonstrated their practical expertise in this area," confirmed Ralf Schüler, inspector at the DWA Association for the North-East.





The whole of REMONDIS with just one click

"PRESSESPRECHER" MAGAZINE AWARDS THE REMONDIS WEBSITE FIVE STARS

A company's website is its first business card as well as the digital door into the company for all its customers and partners as well as for any other interested parties. It is, therefore, extremely important to ensure that the virtual visitors can access the information they are looking for as easily as possible. And it was precisely this that Jutta Kersting and Petra Seyfert – both responsible for marketing matters at REMONDIS – had in mind when they began redesigning the company's website.

Jutta Kersting and Petra Seyfert, both responsible for marketing at REMONDIS.



The requirements for the new design of REMONDIS' website could not have been higher. All relevant information had to be included in the website whilst ensuring that it remained user-friendly, informative, oriented towards specific groups and, in some cases, interactive – a mammoth task for a company with over 500 locations and around 20 subsidiaries at home and abroad who also had to adapt their businesses to include the typical REMONDIS design as part of the project. "What was most important right from the beginning was to consider the design from the perspective of the user," said Jutta Kersting as she explained how they first began the project. Information can, therefore, be accessed via the service/product range pages or via the pages oriented towards the different target groups. Within the three main sections, 'water management', 'environmental services' and 'local services', visitors can directly access all important products and services on the homepage (sorted according to topic) with just one click. Just a few more clicks are needed to find more detailed information on the topic they are interested in. A button on the homepage's main navigation bar allows specialists and journalists to directly access company information, the latest press releases and the company's magazine, REMONDIS aktuell, which is published in six different languages. The 'local services' section was set up to provide a friendly information system for local inhabitants: by clicking on this section, they can find out the collection dates in their region as well as read about more general information on separating waste.

Organizing the layout of the website is an ongoing process as new information needs to be added almost every day. Jutta Kersting and Petra Seyfert were rewarded for their successful work last year: The "Pressesprecher" magazine published by the Federal Association of German Press Spokespersons awarded the REMONDIS website 5 stars. Quote: "It is a real treat for every journalist: right from the first page with the latest press releases and the link to the press room." Furthermore, it said: "The website of the water and environmental service provider, REMONDIS, sets a shining example." There is nothing to add to this except: Welcome to www.remondis.de!

> The perspective of the user is key to designing the best possible website.

20 I REMONDIS AKTUELL

REMONDIS Aqua's new head office – the construction principle: sustainability

NEW ADMINISTRATION OFFICE AT THE LIPPE PLANT COMBINES INTELLIGENT BUILDING TECHNOLOGY AND THE COMPANY'S OWN CONSTRUCTON MATERIALS

As planned, REMONDIS Aqua GmbH's new administration building 10 opened its office doors at the Lippe Plant in Lünen at the beginning of the year. Despite the difficult economic times, REMONDIS made the decision to invest in this new building clearly demonstrating its strategy for growth. The new building, which at first glance appears to have the same Bauhaus architecture as the neighbouring buildings, is, thanks to its technical installations, a prime example of energy efficiency and sustainability.

At times, there were up to 100 workers from around 30 different companies working on the building, which took 16 months to complete, thus ensuring that the work was finished according to schedule. The structure of the building and, in particular, the face brickwork of the façade clearly fits in with the existing buildings at the Lippe Plant. During the meticulous planning phase, attention was also given to details such as accessibility. All floors can be reached by lift and a disabled toilet is located on the ground floor. The two building wings and linking section house eight conference rooms, a large canteen and around 75 offices with modern workplaces for the approx. 150 employees working there. With a total surface area of over 4,275m², the building has three storeys and a cellar.

The company's "brain" is also located here: a central computer equipped with state-of-the-art building control technology. It receives and processes between 2,000 and 5,000 messages an hour. The automatic switching on and off of the outdoor lights, depending on the level of daylight, using "BUS" technology is just one of the many highlights. The intelligent temperature regulation system for the inside of the building automatically turns off the heating in a room if a window is opened. Another special feature is that the heat generated by the building's computer centre is used to heat the building. One feature playing a decisive role in regulating the temperature within the building is concrete core activation, a cooling system which uses water pipes installed in the ceilings to ensure the temperature is kept at a constant level and cool in the summer whilst using very little energy to achieve this.



Being the owner of the building, REMONDIS was able to use its own high quality products for the construction work. Thus, all the walls and ceilings have been painted with its own paint, CASUL, RADDIBIN screed was also used and the Südharzer Gipswerke, a firm belonging to REMONDIS, supplied the construction site with cement. However, not only the technical details demonstrate sustainability but also the service life of the building which is estimated to be a minimum of 100 years. So here's to the future!



REMONDIS enters the Russian water management market



PPP PROJECT BEGINS IN ARZAMAS, A CITY WITH 120,000 INHABITANTS

REMONDIS[®] Ap3AMAC

People in Russia have recognized the signs of the time. Last year, the Russian Federation initiated the "Clean Water" project. Plans are to invest 15 billion roubles, around 375 billion euros, in the project by 2020. And yet many local Russian authorities find themselves in the same situation as those in Germany. There is a lot of work to be done but very little money available to do it. In Russia, therefore, more and more municipalities are choosing to enter into partnerships with experienced private-sector companies to face the great challenges of the future together. The City of Arzamas has chosen REMONDIS to help it modernize its water and sewage installations as well as to operate them more efficiently.

The Russian water sector is looking to invest around 375 billion euros in modernizing its plants by 2020. On 09 December 2009, the cooperation agreements between REMONDIS and the City of Arzamas were signed in the government building in the presence of the Governor, Valerij Shanzev, and the Mayor of the City of Arzamas, Anatolij Migunow, as well as REMONDIS board member, Egbert Tölle, and the managing director of REMONDIS Agua GmbH & Co. KG, Andreas Bankamp. The agreement covers the foundation of a joint public private partnership and involves investments to modernize the city's water management facilities as well as to operate them more efficiently. The new joint venture is to begin operations at the beginning of May 2010. From this date onwards, REMONDIS Aqua GmbH & Co. KG will be responsible for the supply of water as well as the disposal and treatment of wastewater in Arzamas. Founded in 1578, the City of Arzamas lies around 400km east of Moscow in the administrative district (oblast) of

Nizhny Novgorod and has approx. 120,000 inhabitants. The city is home to several large firms including Kommash, a manufacturer of municipal vehicles, and various companies from the electronics branch.

As stipulated in the tender, REMONDIS has founded the joint PPP company, REMONDIS Arzamas Service, with the City of Arzamas, in which the city owns a 25% share and REMONDIS Aqua a 75% share. The new company has taken over all movable assets of the municipal company, GorVodokanal (GVK). At the same time, the new PPP business will invest approx. 21 million euros over the next few years to improve the infrastructures. Each year, the waterworks



"It is REMONDIS' goal to develop the company, REMONDIS Arzamas Service – together with the City of Arzamas – into a centre of excellence within the water and environmental service branch so that it can act as a role model beyond the City." Egbert Tölle, REMONDIS board member

produces and treats approx. 13.5m cubic metres of water and supplies water to and disposes of wastewater from over 16,500 households. Under the aegis of REMONDIS Aqua, the company will be responsible for all business and technical operations as well as for all investments. Before REMONDIS Arzamas Service took over the business operations, water supply and wastewater treatment was the responsibility of the GVK with its approx. 480 employees. The majority of the workforce has been taken over by the PPP company, REMONDIS Arzamas Service.

Future activities will focus on modernizing the technical systems. The company's goal is to prevent damage and water loss as well as to increase security of supply. Furthermore, the pollution levels of the waters in and around the city are also to be greatly reduced by optimizing the wastewater treatment processes. A mammoth task for which REMONDIS Aqua will be bringing its complete know-how in the area of operating water technology facilities to the new company. This includes modern work organization methods based on GIS technology, the use of modern laboratory and analysis technology as well as operating plants so that they are run in an energy-efficient and resource-friendly manner. Moreover, the company is intending to place great importance on promoting environmental awareness in and around the region. To achieve this, it is planning to found a water technology centre as well as to carry out accompanying measures at schools and other public institutions to teach about the efficient use of drinking water.



REMONDIS board member, Egbert Tölle, underlined the importance of the newly founded public private partnership: "It is REMONDIS' goal to develop the company, REMONDIS Arzamas Service – together with the City of Arzamas under the aegis of its esteemed mayor, Anatolij Migunow – into a centre of excellence within the water and environmental service branch so that it can act as a role model beyond the city and throughout the whole of the oblast." The new PPP in Arzamas could find itself developing into a beacon project for the Russian water management sector. There is still a great deal of work to be done together with the municipal partners to ensure that the Russian "Clean Water" project is a success. Roland Ruscheweyh, managing director at REMONDIS Aqua

More and more Russian municipalities are entering into cooperation agreements with private-sector partners.

St. Petersburg Moscow Dzerzhinsk Nizhny Novgorod Arzamas Ufa There is a great need throughout Spain for investments to be made in the water management infrastructure.

International water resources management

REMONDIS Aqua in Spain – Growth through more water

REMONDIS AQUA INTERNATIONAL GMBH TAKES OVER THE SPANISH WATER SERVICE PROVIDER, OMS-SACEDE S.A., BARCELONA

As a result of this purchase, which was completed in January 2010, REMONDIS is continuing its expansion on



the international water market. OMS, which has a workforce of over 150 employees, provides water management services for more than one million people living in Spain.

The rapidly increasing demand for clean water is being met by, at best, a stagnating supply. By taking over the Barcelona-based company, OMS, REMONDIS Aqua will, in the future, be contributing towards solving a problem in the Spanish water supply sector which is becoming more and more serious: climate change is making itself more and more felt on the Iberian peninsular in the form of long periods of drought. The rapidly increasing demand is being met by, at best, a stagnating supply. REMONDIS Aqua will start tackling this problem directly with its new subsidiary, OMS. OMS' activities already include all

aspects of water supply and wastewater treatment. Its core business involves planning and engineering work as well as building and operating facilities for supplying water, treating wastewater, recycling sewage sludge and recovering energy on the behalf of municipalities. In Spain, water management tasks are often put out to tender. The greater willingness, compared to Germany, to cooperate with the private sector eases the way for REMONDIS to commit in Spain, a move that will greatly benefit their municipal partners too. OMS is present throughout Spain with its various subsidiaries and associated companies; the main regions where it is active are Catalonia, Valencia and Madrid. The majority of the company's large municipal projects, where it operates various plants, are located in these regions. However, it is also, for example, active in Zamora in the north east of Spain where, as part of a long-term concession model, it carries out wastewater treatment and operates the local sewage network for 130,000 local inhabitants. All in all, OMS provides water management services for more than one million people.

At the end of last year and as part of a joint venture, OMS won a large-scale project with its partner to set up more than 70 sewage treatment facilities in the Pyrenees. This project is of particular importance for the people living there as well as for protecting the environment and waters in the region, as around 700 districts with more than 2,000 inhabitants still have to make do without sewage treatment systems.

The company's latest project is called 'Abrera' and involves extension work to a sewage treatment plant located approx. 30 minutes west of Barcelona. The main focus of the project is to increase the capacities from 40,000 to 150,000 population equivalents (PE), a measurement of organic biodegradable load in the water sector. This is the equivalent of a 375% increase. REMONDIS Aqua's subsidiary, OMS, is planning and building both the settling tanks and a facility for generating energy.

Remondis Aqua successfully entered the Spanish market in 2006 when it built and took over the operation of a



Eduardo Puig, managing director of OMS

wastewater treatment facility, with which energy can also be generated, for the company Wild, which produces fruit juices and concentrates in Valencia, a region famous for its orange groves. "By taking over OMS, our company has increased in size in Spain, too, which will open up some promising growth opportunities. Water shortages and the need to implement European regulations are the best preconditions for successfully using REMONDIS' efficient and tried and tested water technologies in Spain," explained Dr Lars Meierling and Sven Averhage, who are responsible for Remondis Aqua International, thus emphasizing the impor-

"By taking over OMS, our company has increased in size in Spain, too, which will open up some promising growth opportunities." Dr Lars Meierling, managing director of REMONDIS Aqua International tance of the Spanish market.

Over the last few years, Remondis Aqua has become one of the leading international water management companies. As a result of these activities, in countries such as Poland, Turkey, Russia and India, more than 9.5 million people, in Germany and abroad, are being provided with the company's water management services. The takeover of OMS means effectively a 10% growth for the company.

Cal en Porter, one of OMS' modern water processing plants in Spain.



Plastics recycling

A growing market for recycled plastics

REMONDIS PLANO INTERNATIONAL TRADES IN PLASTICS UNDER THE NAME PLANOTRADE

RE PLANO

The formula is simple: the more expensive oil becomes, the more valuable plastic becomes. And it is an inescapable fact that crude oil is becoming scarcer and scarcer and as a result more and more expensive. As plastics primarily consist of crude oil, an increasing number of manufacturers of plastic products around the world are looking for alternative sources for their raw materials. REMONDIS Plano is reacting to this trend and extending its activities beyond recycling and pushing forward its trade in plastics.



Being close to the customers gives a company an important competitive edge.

The more expensive oil becomes, the more valuable plastic becomes. REMONDIS Plano has been increasing its trade in plastics since the end of 2006 and offers its customers around the world a wide range of materials from different sources. By doing so, customers benefit from having a reliable, fast and constant supply of material as well from focusing on one partner. As a result of this great potential for customers to identify with the company and the absolute reliability of the business, this business division is now well established within the company and has become a successful line of business for REMONDIS Plano.

In 2009, the company sold 70,000 tonnes of plastics. Approximately 52% went to commercial and industrial customers. Exports beyond Europe lay at about 22% in 2009 and this figure is continuing to grow. Exports of plastics to countries outside Europe are, in the future, to be pushed

forward by the REMONDIS branch in Shanghai without, however, the European recycling channels being neglected. There are currently 9 employees working in the office, in the field and in marketing who are responsible for dealing with customer enquiries, suggestions and requirements concerning both procurement and sales. PLANOTRADE looks for both suitable recyclers for companies generating waste as well as for suitable materials for plastic processing businesses. To achieve this, the sales personnel are in constant contact with their customers in order to find the best possible solution that fulfils each particular need.

Being close to customers is particularly important when trading in plastics. REMONDIS Plano provides this proximity to its customers through its branches in Hamburg, Cologne, Stuttgart and Dresden. Wherever plastic waste is gener-



ated, the REMONDIS Plano experts are on hand to provide their customers with competent advice on waste stream management and professional container systems. The range of plastics, the company trades in, covers all areas of the industries producing or processing plastics, commerce and the household collection of waste containing plastic. This includes commercial and agricultural film, shrink hoods, nappy lining (LDPE); bottles, canisters, drums, cases (HDPE); pots, film, buckets, big bags, fleece, production waste (PP); bottles, film, straps (PET) as well as mixed plastics such as hard plastics, production waste, technical plastics (PA, ABS, PC, PS etc.), back covers of television sets, monitor casings

"When trading in plastics, it is becoming more and more important to be present where the action is taking place on international markets. Whether it's in Europe or in Asia, REMONDIS Plano uses its expertise to provide its customers with direct support wherever intelligent material stream management is needed."

Martin Hemmer, head of REMONDIS PLANOTRADE



and reels. The trading activities are not just restricted to simply buying and selling plastics. REMONDIS Plano also supplies processing businesses with plastics that can be used straight away to manufacture new plastic products. These products, for the most part regranulates, agglomerates and ground material, are purchased according to the exact specifications of the customers or are specifically produced for them at the appropriate processing partners. REMONDIS' many years of experience in producing regranulates and ground material also comes into play here. The company's own laboratory guarantees the high quality of the products with its state-of-the-art analysis technologies.

The company's activities both in the area of procuring and selling plastics are increasingly extending to international markets. This is true for the European markets as well as for the recyclers in the growth markets in Asia such as China and India. REMONDIS Plano's office in Shanghai, which was founded in 2004, is playing an important role helping to bridge the distance between Europe and the Asian markets. Competent employees work there selling plastics in order to find recycling channels and enable them to directly supply their partners in the Far East as well as to provide them with support. REMONDIS' recycling plant for PE and PET in Taiwan, which went into operation in 1995, is closely involved in the supply concept. By being close to these rapidly growing markets, where the main plastics buyers are located in the Far East, REMONDIS Plano is able to keep a close eye on the latest price and volume developments and as a result react quickly on the procurement market if needed. And the customers also benefit from these advantages.

Remediation services

Working in the Baltic

SAVA RETRIEVES LARGE VOLUMES OF PESTICIDES ACROSS LITHUANIA



Difficult challenges can best be overcome by working as a group. A project carried out recently in Lithuania demonstrates just how true this is. With the support of other companies in the RETHMANN Group, SAVA cleaned up twelve different locations in the country that were contaminated with pesticides. The work also included cleaning 30 old pesticide warehouses. This demanding project is the most extensive of its kind ever carried out around the world.



Today, there are still no facilities in Lithuania where pesticides, earth contaminated with pesticides or similar waste from production and storage activities can be disposed of. The situation was no different more than 30 years ago. Thus, in the 70s, regional landfills were set up for waste herbicides and pesticides – simple pits with underground chambers lined with concrete. As water seeped into these caverns, more and more contaminants were washed into the soil.

The entry of this Baltic state into the European Union gave the country the chance to fix this unacceptable situation. Financial aid from the EU meant that the contaminated areas could be cleaned up according to western standards. In 2007, an international tender was put out for this project and was awarded to SAVA, a company belonging to REMONDIS Industrie Service, in the same year. They were awarded the project thanks to their economical and comprehensive concept to solve the problem as well as the high level of expertise of these specialists for hazardous waste.

Guaranteed success thanks to meticulous preparation work

Remediation work of this size generally requires extensive preparation work. As the distance between the head office in Brunsbüttel and the region in question was considerably more than 1,000 kilometres, there was even more work involved. Thus, temporary sites had to be set up first in Žygmantiškiu and Baušiškiu and tools and packaging materials sent to Lithuania.

Furthermore, all employees working on the project had to be informed of the risks involved according to a special health and safety plan and then take part in training courses. As it was not possible to dispose of the hazardous waste on site in Lithuania, SAVA had to apply for a permit to transport the waste. Such permits are obligatory in the EU states if it is necessary to travel through a third country.

Smooth work processes and rapid removal

The operative work began in the spring of 2008 by taking samples and then analysing and classifying them. The contaminated earth was then removed. To ensure the materials were transported safely, they were packed on site in secure packaging and then sent to central interim storage facilities where they were packed into larger volumes and exported by road to the planned place of destination. A supervisor monitored all measures undertaken and sent weekly reports to the principal, the environmental project management authorities, APVA from the Lithuanian Ministry for the Environment.

Klaipeda

"The Lithuanian project has shown just how effective, cooperative and competent the REMONDIS Group can also be when working on difficult projects abroad."

Kaunas

Jaroslaw Surma, sales manager responsible for East and South-East Europe at SAVA

Time saved thanks to perfect cooperation work

All in all, as part of the project, SAVA removed 2,000 tonnes of pesticides and 6,215m³ of soil contaminated with pesticides. This is the equivalent to 28,000 barrels, 970 big bags and 190 lorry loads. The fact that the project was completed in just 13 months can, for the most part, be put down to the close cooperation work within the RETHMANN Group. Lünen-based Umwelt Control Labor was responsible for carrying out the comprehensive soil analyses; Rhenus Svoris, a company based in Vilnius/Lithuania, was responsible for all aspects of the transport. A large part of the pesticides and contaminated earth was treated by the Group's own plants, including facilities owned by SAVA and REMONDIS Industrie Service. "The Lithuanian project has shown just how effective, cooperative and competent the REMONDIS Group can also be when working abroad and on difficult projects in order to be a success by supporting each other," commented Jaroslaw Surma, sales manager at SAVA responsible for East and South-East Europe.

Still much to do: according to the Food and Agriculture Organisation (FAO), 500,000 tonnes of old pesticides across the world still need to be disposed of.

Utena

Vilnius

Everything under control

THE TECHNICIANS AT UMWELT CONTROL LABOR (UCL) IN LÜNEN ARE MASTERS OF ANALYSIS

UCL

Everything would fall apart without analytical data. Whether it involves controlling production processes, classifying waste or assessing the economics of remediation projects – in all cases in-depth analyses form the basis for such evaluations. It is inconceivable to have modern environmental services without competent laboratory services. One of the best laboratories in Europe is located in Lünen.

Thanks to UCL's own LISA-Web network, customers can access their analytical data 24/7. UCL is recognized by the branch as being a reliable partner for analytical work and evaluating raw materials. Day after day, the laboratory demonstrates its skills wherever analytical questions need to be answered quickly and efficiently. Across Europe, UCL works for industrial companies, commercial businesses, engineering firms and environmental institutes as well as for public-sector customers such as ministries and municipalities.

The company began its work in 1938 as a plant laboratory at the VAW Aluminiumhütte in Lünen which was later renamed AIR Lippewerk and taken over by REMONDIS in 1993. The takeover also included the plant's laboratory activities run by the firm, UCL GmbH. New locations were set up over the following years in Hanover, Cologne and Frankfurt. In 2007, UCL took over IGU Biobac integrating its laboratories in Kiel, Hamburg and Westerrönfeld into the group and as a result extending its presence in the north of the country.

"A wide-reaching basis is needed to be able to provide outstanding services. We guarantee top quality and leave nothing to chance." Martin Langkamp, managing director of UCL

> "By integrating IGU Biobac and its exclusive know-how in the area of special analytical services and project work into the group, our range of services was able to be considerably extended," said managing director, Marcus Rautenberg. UCL'S presence across Germany was rounded off with the opening of a sales office in Munich at the beginning of 2010. "As we have such a wide-ranging number of services, it is very important to be close to the customers to be a success on the market. UCL is able to help quickly thanks

to its regional sales structure – no matter whether it is to do with analytical questions, evaluating results or with any other aspects concerning samples, such as taking samples or sample logistics, " commented Dr André Nientiedt, an authorized signatory of UCL.

The company is primarily active in the following fields of business: environmental, waste, recyclables, drinking water and operation analyses. In addition, it takes on special analytical tasks. As a result, UCL's services range from routine examinations to developing special procedures. It analyses practically all parameters that are relevant for water, waste, soil and air. UCL always delivers results – whether it involves a pollutant registry for a cargo ship, classifying soils at landfills or classifying a type of wastewater.

One of the company's particular strengths in all these segments is its sample logistics. UCL provides special transport packaging with barcodes so that it is impossible for parcels to get mixed up. There are different ways in which the sample containers can be transported: the samples can either be handed in to the regional depots, from where they are sent directly to the laboratory, or the material is collected by UCL or by an authorized courier service. The UCL employees can access information concerning the transport of a package throughout the whole of the logistics process. UCL's customer services go far beyond just carrying out analyses. These include, besides supplying sample containers and the corresponding sample logistics, the UCL online information system (LISA-Web) and the UCL shopping portal, its web shop. The online information system, LISA-Web, which is unique within the branch, enables both current and archived analysis results to be accessed anywhere and

It is inconceivable to have modern environmental services without precise analyses.

at any time. The special advantage of LISA-Web is, however, its simple data processing system making it possible – no matter where or when – to check limit values, monitor projects over a long period of time, to carry out plausibility checks, draw up charts and evaluate the data as well as display the results in Excel format.

"A wide-reaching basis is needed to be able to provide outstanding services. We guarantee top quality and leave nothing to chance. One important basis here is our dynamic quality management system, which we are constantly monitoring and extending step-by-step in order to improve it all the time," said Martin Langkamp, UCL managing director. "Accreditations and permits provide proof of the quality and strength of our comprehensive analytical services. All UCL laboratories have DIN EN ISO/IEC 17025 accreditation and, as a result, have passed the DIN ISO 9002 tests. Each year, our laboratories analyse more than 120,000 samples." Besides taking and analysing samples, UCL also offers advice on the correct choice of method, draws up concepts and organizes complex projects. This expertise is offered in five concrete fields of business:

- Environmental analyses for the areas of soil, soil air, construction waste, water, wastewater.
- Analysis of waste for its use as secondary raw materials and the recovery of recycling material as well as analytical information on the best possible way to dispose of residual materials.
- Drinking water analyses to determine water quality.
- Operation analyses. As part of an operation analysis, analytical methods are suggested to the customers that have been adapted exactly to their needs. This can also include the running of a plant laboratory from the planning stage to drawing up the concept, to building the premises and managing the operations.
- Special analyses: biogases and flue gases, oils and material samples. Moreover, UCL analyses indoor air and carries out hygiene and workplace measurements.

Generating energy

Heat from wood chippings

CLIMATE PROTECTION AND BUSINESS ADVANTAGES CLEVERLY COMBINED



Wood chippings are replacing crude oil. According to this motto, waste timber is being used to heat wood drying kilns in Nordham-Blexen in Lower Saxony. RETERRA operates a kiln for this purpose on site at the Rhenus Midgard sawmill – and supplies heat without having to use any fossil fuels at all.

The innovative furnace for Rhenus Midgard is carbonneutral and has reduced energy costs by 30%. Timber trade, timber imports and timber exports: Rhenus is also active in these business fields as a logistics specialist. These activities also include processing timber. Thus, Rhenus Midgard owns a modern sawmill with its own drying facilities. The timber is subjected to temperatures of up to 80°C to prepare it for further processing. The heat needed to do this used to be provided by a natural gas burner, which caused high energy costs.

Heating system in container format

RETERRA has now implemented an alternative solution which saves costs and, at the same time, protects the climate. The main idea behind this system is to use the 1,500 tonnes of residual wood generated each year at the sawmill. Cut into wood chippings, it is then stored in a fuel container. Hydraulic sliding systems transfer the material into the 120m³ power plant container. The automated proc-



"Energy production using wood chippings makes a valuable contribution towards the energy mix and helps to cut greenhouse gas emissions."

Aloys Oechtering, managing director of RETERRA

esses and intelligent computer control system ensure the correct volume is used to fulfil the heat requirements at any given time.

Exemplary CO, balance

Being the German market leader in the area of wood fuels, RETERRA provides support during all phases of building a new kiln – from the planning to the financing to putting it into operation. At the same time, the company is both the producer and supplier of the fuels. Besides supplying clearly defined quality products, the company's range also includes individual fuel mixtures for specific heating purposes. The base material is always residual wood, i.e. waste timber or plant and tree cuttings.

Wood chippings from agricultural businesses are, for example, supplied to Fernwärme Niederrhein which uses them to heat a school and sports centre in Erftstadt. This generously sized complex consists of nine buildings and, by heating with biomass, the owners are able to reduce the amount of natural gas needed by 365,000 cubic metres. The drugstore chain, dm, purchases wood fuel from RETERRA to heat its distribution centre in Weilerswist near Cologne. The wood chippings in just these two projects cover a heating requirement of more than 7,000,000 kWh, which means that each year CO_2 emissions can be reduced by a good 1,850 tonnes.

Supplying the community makes sense

The power generated by the plant in Nordenham would be sufficient to cover the needs of 150 detached homes. It still has free capacities even after having covered the needs of Rhenus Midgard and these capacities could benefit those living close by. With this in mind, the city is currently examining the possibility of connecting nearby public buildings, such as kindergartens, schools and retirement homes, to the system. The local council has decided to modernize its buildings as far as energy consumption is concerned this year in order to bring them up to date. Connecting them to this future-oriented wood kiln facility would be a good step in the right direction. There is a future for heating with wood. This natural fuel can be grown again and again, is available in all regions and can be used as an environmentally friendly alternative to fossil fuels.

Background

Competitive strength for market gardeners in the Lower Rhine

There are two main reasons why agricultural businesses like to use wood fuels: they are cost-efficient and contribute towards achieving an environmentally friendly market gardening business. Both strengthen their position on the market, for, besides being good value for money, they have provided a strong selling point for many years now as the cultivation of vegetables is carbon-neutral. Each year, RETERRA sells around 15,000 tonnes of PYROHACK, a fuel produced from branch and bush clippings, to market gardeners in the Lower Rhine, Germany's largest market gardening centre.



Buchen KraftwerkService

Clean boilers perform better

THANKS TO ITS EXPERTISE IN THE AREA OF MAINTENANCE WORK, BUCHEN ENSURES THE OPERATIONS AT THE WASTE INCINERATION PLANT RUN SMOOTHLY

EVZA Energie- und Verwertungszentrale GmbH, Anhalt, was the largest individual investment ever carried out by REMONDIS to date. Around 130 million euros were invested in the Staßfurt site and over 60 new jobs created. This commercial waste disposal plant was put into operation at the beginning of 2007. Right from the very beginning, this thermal treatment plant has stood out thanks to its high level of technical availability and reliability. It guarantees that its customers' waste can be disposed of and supplies the neighbouring potash business with process steam and electricity. Buchen cleans the boilers to ensure it stays this way.



Good availability and reliability are part of the EVZA's maintenance and business philosophy. To ensure this is guaranteed, the operators count on their reliable partners to carry out any necessary repair and cleaning work exactly according to schedule. If this were not the case, then they would not be able to fulfil their supply and delivery obligations. One fundamental factor here for running and maintaining the plant efficiently is having the facility cleaned. No matter whether it involves a power plant or a waste treatment plant – the BKS cleaning specialists offer their expert audit services wherever steam is generated from heating solids.

"BKS is the only company in its branch to have all its employees take part in the DEKRA-accredited training course, 'Specialist for Sandblasting Work'."

Franz Josef Englisch, Geschäftsführer Buchen Group

Best possible technical availability thanks to competent maintenance work. For this purpose, the EVZA in Staßfurt is provided with cleaning services during the obligatory audit carried out by BKS. For waste incineration is not a residue-free process. Caking, slagging and scaling is left on the heating surfaces of the boiler as a result of the chemical and physical properties of the fuel. These have an effect on the heat transfer, lead to an increase in electricity requirements due to the increased drag and, in the worst case scenario, could result in total failure. For this reason, it is essential that the facility is cleaned at regular intervals.

Efficient planning and implementation together with good cooperation work between the EVZA team and its external partners are imperative if the cleaning work is to be carried out and the facility re-started quickly. At the end of November 2009, it was the turn of boiler 1 in Staßfurt to





undergo its regular audit. Because of the amount of residue, selected areas of the heating surfaces had to be shot blasted. Furthermore, the cleaning schedule included the basic cleaning of the group of superheaters and vaporizers in the 3rd flue as well as the cleaning of the funnel surfaces and suctioning off the residual material from the funnel. The 4th flue was also cleaned including the economizer heating surfaces. For safety reasons, the caking had to be removed from the furnace using blasting technology before the scaffolding could be installed.

A typical task for plant manager and blaster, Frank-Holm Nowotnick, and his team, who are active throughout Europe. His experienced audit experts know their way around all the different models of boiler. The work was carried out professionally and on schedule in just a few days. The selected areas were blasted with granulate and the heating surfaces were freed of the dirt using special tools. Working in two shifts, the experienced teams also cleaned the heavy duty extraction system which can achieve up to 8,100m³/h and an operating range of up to 300m. The extracted material was then packed in vacuum skips or big bags and sent for professional disposal. The actual blasting work with granulates is, in particular, a job for experienced cleaners who are not worried by great heights or working in restricted spaces wearing full body protection suits. At the same time, they need to have an eye for detail as, when cleaning the pipes, walls and filter surfaces, they need to remove the dirt but spare the underlying surface. BKS is the only company in its branch to have all its employees take part in the DEKRA-accredited training course, 'Specialist for Sandblasting Work'. If necessary, specialists from other locations are sent in to help the team.

Background

Buchen KraftwerkService GmbH has more than 170 employees who work at one of the company's eight locations in Germany. This REMONDIS subsidiary is, therefore, close to its customers. Working, if necessary, with other Buchen Group companies, it is able to offer professional complete solutions in the areas of high pressure water jet technology up to 2,500 bar, solid-liquid separation (sludge dewatering), work on tall structures using safety ropes (industrial climbers), stud welding work (pinning and de-pinning), chemical cleaning (cleaning in place) as well as measuring the thickness of walls (ultrasound).



Products

ILLUMIN[®] – a great fire for a better atmosphere

REMONDIS' OWN PRODUCT CREATES CARBON-NEUTRAL COMFORT IN THE HOME

REMONDIS Medison GmbH is launching a new product onto the market: bio-ethanol made from 100% renewable raw materials. With its new product, ILLUMIN[®], the company is also targeting final consumers – for REMONDIS an 'untypical' business up to now.

ILLUMIN[®] is absolutely residue-free, does not smell and is carbon-neutral.

NILLUMIN

Atmosphere, wellness and lifestyle are 'in' at the moment. In response to this trend, this REMONDIS subsidiary has begun producing ILLUMIN®, a high quality fuel in the form of bio-ethanol or fireplace gel. The bio-ethanol is used in decorative ethanol fireplaces and two-chamber fireplace systems for homes. Its high level of purity, 99.8%, not only ensures that the fire created is warm and pleasant but also that it burns for an above-average length of time.

ILLUMIN[®] is absolutely residue-free, does not smell and is carbon-neutral.

As planned, REMONDIS Medison GmbH began filling the bottles of bio-ethanol at its company STAUFEN CHEMIE at the beginning of 2010. The fireplace gel is to be launched onto the market in the middle of the year. This specialist for bottling solvents is one of the market leaders in the segment for thinners, cleaning agents and primers. Thanks to the complex process monitoring system and the use of synergies with the RESOLVE distillation plant, the main part of the supply chain has already been covered and the quality documented and checked. By developing new products, the Erfurt and Hattenhofen-based firms, which already have the necessary know-how for selling brand-name products through the selling of their brands STAUFEN and RECOLOR, are looking to open up new market segments for REMONDIS' subsidiary.

Focus is not only being put on DIY stores but also on furniture stores and other retailers. Furthermore, ILLUMIN[®] is a product for final consumers. This business-to-consumer relationship is unusual within the REMONDIS network. Negotiations are currently being carried out with well-known fireplace manufacturers, such as Kaminwunder and Hark, for the aim is to use these sales channels to establish the brand on the market quickly. Medium-term plans are to launch the product onto the other European markets. By the end of the year, the different sized containers, from 1 litre to 1,000 litres, will also be available via the planned online shop. Besides ILLUMIN[®], other environmentally friendly product innovations are also waiting in the wings such as a paint stripper produced from distillation residue. Environmental services

RADDIEN

From flue gas to flowing screed

RADDIBIN

HOW REMONDIS TURNS CONTAMINATED MATERIAL INTO HIGH QUALITY CONSTRUCTION MATERIAL

In the 80s, the spectre of "dying forests" was looming over the world threatening the environment. The reason behind this was the problem of unfiltered flue gas emissions from coal-fired power plants which fell back onto the ground as acid rain having a devastating effect on our forests. Although it was not a great technical challenge to solve this problem, within just a few years, Germany found itself having to process and sell several million tonnes of FGD gypsum each year, the residue generated by the desulphurisation process. It was, therefore, effectively a stroke of good fortune that the Lippe Plant in Lünen was looking for a new field of business precisely around this time.

The shutting down of the aluminium production activities in Lünen coincided with the beginning of the desulphurisation of flue gases at coal-fired power plants. The systematic further development of the existing facilities, clever investments in new products and the introduction of a stringent quality assurance system led to rapid growth of the site's gypsum activities. As a result, within just a short period of time, the company was able to position itself as market leader in the area of flooring plaster and special gypsum for specific applications for the medical and construction chemicals industries. At the moment, almost 360,000 tonnes of this material is processed in Lünen alone each year. FGD gypsum, therefore, not only contributes towards reducing air pollution but also helps to conserve natural gypsum resources and our forests.

Extensive quality controls need to be carried out before flue gas can be turned into screed. The manufactured products are monitored in accordance with the latest European norms and inspected by the North Rhine-Westphalian Materials Testing Office in Dortmund. The gypsum binding agents, produced by the company from secondary raw materials, stand out thanks to their high level of product stability. It is no longer possible to distinguish between products made from this material and products made from natural gypsum. Its high quality and good reputation have created a large number of long-term, loyal customers both in Germany and in the neighbouring European countries. The gypsum products are sold exclusively to industrial customers under the now well-established umbrella brand, RADDiBIN. Together with the support of prominent universities and their technical facilities, the aim is to make even more use of the potential of other kinds of residue gypsum resulting from industrial neutralisation processes. Brilliant white qualities for certain niche products, such as medical applications, are of particular interest at the moment. Such application areas require a combination of the best binding properties and an optically perfect quality - properties that are a matter of course for the gypsum experts at the Lippe Plant.

High quality leads to market leadership.

Transport services .

A great start to the day

PPP TRANSPORTATION SERVICES – GETTING TO SCHOOL SAFELY WITH THE FES

Early in the morning in Frankfurt am Main: 385 children are waiting for the school bus. But in their own homes as they are not picked from bus stops but from their front doors – by an FES bus. For many years now, this public private partnership has been ensuring that physically and mentally disabled children are transported safely to their schools.

FES

FES Frankfurter

Entsorgungs- und Service GmbH, which is owned by the city and REMONDIS, sees itself as a full service provider. Together with its subsidiaries and associated companies, it offers a widereaching range of services. The school bus business is a private service provided on behalf of the local government. Around 30 vehicles, specially equipped by the company, take the children from all around the city to four special schools. Once school is over, the young passengers are picked up again and taken either to their homes or to day care centres. The bus times are not planned on a long-term basis. On the contrary, the buses run according to when each pupil finishes school each day.

The buses start running at 6 o'clock in the morning and the final trip is around 5.30pm. Each bus driver looks after the same children every day, sometimes for many years, and they also accompany them on school trips. This creates continuity and builds up trust – values that are particularly important for these schoolchildren. Thus, "their driver" is not just a chaperone for most of them but also a friend and someone they can rely on.

Most of the FES school bus drivers have been doing their job for many years. They are very familiar with their important tasks, well used to working with the children and know how to react in an exceptional situation. What they all have in common is that they are all absolutely reliable. For, pupils, teachers and parents alike must be able to rely on the bus turning up on time. "Our service combines many years of experience with modern vehicle technology," explained Jürgen Forstmann, who is responsible for the school bus services at the FES. "The best prerequisites, therefore, for providing comprehensive and reliable services and a safe journey to and from school."

Energy from waste

REMONDIS SUPPLIES "FUEL" FOR KIEL'S DISTRICT HEATING NETWORK

Generating energy and heat from waste in combined heat and power systems integrated into waste incineration plants is considered today to be a real success story. Just under 20% of the greenhouse gas reductions, planned in the Kyoto Protocol, had already been achieved by the waste management branch alone by 2007. Two-thirds of this success can be put down to waste incineration activities. Germany, however, has long since exceeded the economically feasible upper limit for incineration capacities. Instead of creating over-capacities, importance should be put on optimizing the energy efficiency levels of existing plants.

The Kiel waste incineration plant has been located in the middle of the city since 1975. Each year, it thermally treats up to 140,000 tonnes of waste. Alongside the City of Kiel, REMONDIS ensures that the plant's capacity is used to its best. The waste is incinerated in the two incineration lines with the resulting flue gas being cleaned in a modern, wet flue gas cleaning system. The resulting emission values are well below those stipulated in the 17th Ordinance of the Federal Emissions Control Act (17. BimSchV) for incineration plants for waste and similar combustible materials. The considerable amount of energy generated from the biologically degradable waste means that the plant also fulfils the conditions concerning heat production laid down in the Renewable Energy Heat Act (EEWärmeG).

Each incineration line has a thermal power of 22 megawatts. This energy is used very efficiently in the Kiel waste incineration plant (MVK). To begin with, the steam, which has a temperature of 400°C and an initial pressure of 40 bar, flows through a back-pressure turbine producing approx. 40,000 megawatt hours of electrical energy. Having passed through the turbine, the temperature of the steam is only 160°C and the pressure 1.5 bar. Once the plant's own minimal requirements have been covered, the remaining 30 megawatts can be fed thermally into the district heating network. This is the equivalent to the requirements of the City of Kiel in the summer. As the district heat requirements are, of course, around 10-times greater in the winter, the Kiel waste-to-energy plant can feed 100% of the energy it generates into the network. The city's steam network, which is almost 100 years old and making considerable losses, is currently being converted into a modern hightemperature water network to increase efficiency levels. The Kiel waste incineration plant is following the example of the city and is cutting back its steam network and increasing its activities in the area of the more economical high-



temperature water system. The old steam network in Kiel will be closed down completely after 2011.

From this point onwards, the back pressure following the MVK turbine will be able to be clearly reduced. With the new pressure levels, the turbine will be able to produce 10,000 megawatt hours more electricity; the district heat energy will be reduced by the same amount. The energy efficiency formula in the new Waste Directive, attributes a weighting of 2.6 to electricity (energy efficiency factor R1), considerably higher than the weighting given to steam. Thus, as far as the generation is concerned, the previous energy efficiency coefficient of 0.81 will be increased by a further 16,000 megawatt hours per year. Cost-efficiency will also be clearly increased: one megawatt hour electric brings more profits on the Leipzig Electricity Exchange than one megawatt hour thermal, which must, out of necessity, be sold to the network operator. It is, therefore, essential to move away from the district heating networks, which are dominated by public utility companies in Germany, and also to protect the producers and encourage a practically carbon-neutral production of heat.



In Kiel, as in many other cities, the district heating network is being converted from steam to high-temperature water resulting in significantly higher levels of efficiency.

News in brief

Social commitment

BLOOD DONATION DRIVE HELPS TO IMPROVE CHILDREN'S LIVES

When children are not well, they need all the help they can get. Thus, REMONDIS Sanitech organized a blood donation drive in Poznan for young cardiac patients together with the WOJTUSIAKI.PL Initiative. Under the motto "For Adalbert and other children", a mobile blood donating unit was parked on the branch's grounds for a whole day. Coffee, sweets and an ecological present was handed out to the donors to thank them for taking part.

Employees and local inhabitants donated a total of 41 blood units. For the local children's heart surgery clinic, this amount is sufficient for 14 operations and the corresponding post-surgery care. Following the blood donation drive, there was a visit to the hospital to give mascots and presents to the young patients. REMONDIS Sanitech is planning to organize similar such events. Honorata Czechowska, who coordinated the event, commented: "We feel it is very important to support the children on their way to recovery and we wish to take over responsibility for this here at our company."



News in brief

Norbert and Irmgard Rethmann receive Siemerling Social Prize

RECOGNITION FOR COMMITMENT TO SUPPORTING EQUAL RIGHTS AND INTEGRATION OF FOREIGNERS AND FIGHT-ING SOCIAL INJUSTICE

Entrepreneurs, Norbert and Irmgard Rethmann from Mecklenburg-Vorpommern, have been awarded the Siemerling Social Price 2010 by the 'Dreikönigsstiftung Neubrandenburg'. In his laudatory speech during the awards ceremony held in Neubrandenburg on 03 March 2010, the Archbishop



of Hamburg, Werner Thissen, praised the many commitments of the award winners. The economic and financial crisis has shown, he said, that society depends very much on the decisions of politicians, economists and other people in positions of responsibility who also commit themselves to the good of society. The award, which was presented for the 17th time also included a 10,000 euro sum which the couple immediately donated to a hospice. Archbishop Thissen stressed the significance of the Siemerling Social Prize for Mecklenburg-Vorpommern. This year's winners were a very good choice, he said. "Together, as a couple, they achieve something that is more than the sum of its parts. They invest both their time and energy in the community," said the Archbishop. This year's winners were honoured for their exceptional services to supporting equal rights and the integration of foreigners and fighting social injustice as well as for city development.

REMONDIS at the IFAT in Munich from 13 to 17 September

FOCUS IS TO BE PUT ON COOPERATION WORK BETWEEN LOCAL AUTHORITIES AND THE INTERNATIONAL WATER AND ENVIRONMENTAL SERVICE BRANCH

This year's IFAT, which is being held at the exhibition grounds in Munich from 13 to 17 September, has already broken all records. Never before have so many exhibitors registered to take part in the trade fair. On the one hand, this is being seen as a clear sign that the crisis is being overcome within the water and environmental service branch. On the other hand, the merger of the IFAT and ENTSORGA has also played a role in increasing the success of the exhibition.

REMONDIS will be at the exhibition presenting its full range of water and recycling products and services in Hall B1, 227/330. Besides services for commercial customers, focus is being put on the services for municipal partners who, finding themselves in financial difficulties, are becoming more and more important. Other subjects will be wastewater treatment and drinking water supply both at regional and international level as well as on the expansion of recycling structures in Central and Eastern Europe.

The Munich Trade Fair Centre and the Federal Association of the German Waste Management Industry (BDE) work together very closely at the IFAT. The world's leading exhibition for water, recycling, secondary raw materials and waste disposal is being run under the name IFAT ENTSORGA this year. The organizers are expecting this year's IFAT to attract even greater numbers of visitors than the last one held in 2008. Over 120,000 international specialists visited the stands of the 2,605 exhibitors from 41 countries two years ago. IFAT ENTSORGA is, therefore, the world's most important trade fair for innovations in the areas of water, wastewater, waste and recycling.

REMONDIS®



People_

REMONDIS

REMONDIS' Iron Man

TRIATHLETE ANDREAS BREITSPRECHER CARRIES THE REMONDIS LOGO WITH HIM OVER THE FINISHING LINE

REMONDIS[®]

When Andreas Breitsprecher travels to work in Kiel at 5 o'clock in the morning, he normally walks the distance or takes his bike. The fact that he is almost three times as fast as the other pedestrians and cyclists and sometimes overtakes one or other car can be put down to his hobby. The experienced operator of equipment for pipe and sewer inspections at REMONDIS is a passionate triathlete and wears the name of "his" company on his chest during every competition.

> working on a topic that is growing in importance for all homeowners in Germany: carrying out leak detection work and maintaining sewage connections as stipulated by law. Being a specialist for CCTV inspection technology, he examines pipes, pipe connections and joints using state-ofthe-art camera and video recording technology. The inspection results are fed into the computer system in the vehicle and then displayed in graphic form. This not only requires technical know-how but also an eye for detail and stamina. The qualified gas and water fitter has been improving his stamina outside his work as he has been playing football regularly since he was six.

Born in Rostock in 1979, he is currently

Andreas Breitsprecher cuts a fine figure at the Ironman competition – and advertises for REMONDIS.

Encouraged by his colleagues at REMONDIS, he took part in a half-marathon in 2005 where he was one of the first to finish. He began cycling during a holiday to south France in 2007 and soon after became a member of the triathlon club, TuS Holtenau Kiel. Since then, he has gone from success to success: he made third place twice at the Rostock half-marathon setting a new personal best time of 1 hour 18 minutes; he made 412th place out of approx. 2,500 participants in the 2008 Ironman event in Roth (10:22:18 h) as well as 371st place out of approx. 2,500 participants at the Ironman in Zürich last year (10:12:45 h).

Those who, like Breitsprecher, can swim 3.8km, and then cycle 180km and run 42.2km and regularly finish high up among the field, can easily run the marathon distance under three hours and beat most of the competitors. Although the triathlete, who competes in the regional league, is currently injured, he has already made plans for next year: at the next Ironman competition in Copenhagen in 2011 he is looking to reach the finishing line in under ten hours. The REMONDIS logo will accompany him wherever he goes. We wish him continued success in both his sport and work.

> Impressions



 From left to right: Swetlana Bigesse, Roland Ruscheweyh and Andreas Bankamp at the signing of the contracts for the PPP with the Russian City of Arzamas

Norbert and Irmgard Rethmann with Egbert Tölle, Sölen Arkun and a Turkish delegation • during a visit to Turkey



 REMONDIS board member, Egbert Tölle, with the Governor of the Nizhny Novgorod region, Valerij Shanzev



 Irmgard and Norbert Rethmann at the Siemerling Social Prize awards ceremony in Neubrandenburg





 The REMONDIS team in Turkey during the visit of the honorary chairman of the supervisory board and board members



The Archbishop of ► Hamburg, Werner Thissen, together with Irmgard and Norbert Rethmann





Focusing on our customers.

> Environmental, waste and drinking water analyses

Professional solutions for analysing the environment, waste and drinking water: UCL's services range from routine examinations to developing special procedures.

Our concept: successful in 5 segments

- Environmental analyses: soil, soil air, construction waste, water, wastewater...
- Analysis of waste: recycling materials, secondary fuels, waste timber, solvents...
- Drinking water analyses: raw water, drinking water...
- Operation analyses: planning, concepts, development...
- Special analyses: biogases, flue gases, oils, material samples, indoor air, workplace measurements...

All UCL laboratories have DIN EN ISO/IEC 17025 accreditation. Why not give us a call or send us an email? We are close to wherever you are: in Kiel, Hamburg, Hanover, Lünen, Cologne, Frankfurt and Munich.