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FREE MOVEMENT OF GOODS OR PRINCIPLE OF SELF-SUFFICIENCY. WHERE IS EUROPE HEADING?

News: New EU waste directive goes against single market principle

News: Ukraine's environmental services sector on the right track

Environmental services: Full service on the coast, submarines included

People: From trainee to works manager – 50 years working at the Lippe Plant

## REMONDIS aktuell 02 | 2008

# Contents



## HOW MUCH HIGH-AND-MIGHTINESS WILL THE SINGLE MARKET TAKE?

With its recently passed Council directive on waste, the EU wants to strengthen the environmental services sector in the European single market permanently. For this to work in practice, it must be ensured that the principles of free movement of goods and fair competition are upheld for separately collected domestic waste.

Page 4



## UKRAINE'S ENVIRONMENTAL SERVICES SECTOR ON THE RIGHT TRACK

The structures for a modern environmental services sector are now being put in place in the Ukraine too. The city of Saporoshje is taking the lead in the modernisation of the entire Ukrainian waste economy. The world's largest PPP, from REMONDIS, is making a huge investment in a modern waste disposal infrastructure that meets European standards. Page 18



## MARITIME SPECIALIST

The REMONDIS subsidiary Werner & Zeisse is a recognized expert in the cleaning of shipbuilding facilities. HDW is one of the Heikendorf company's biggest customers. In the European shipbuilding association Thyssen-Krupp Marine Systems, HDW benefits from comprehensive recyling and waste disposal solutions.

Page 30

## NEWS .

- 4 Quo vadis, Europa? Departure from the single market principle
- 6 New Council directive on waste: Community decision takes precedence
- 8 Recycling without borders Help for Naples
- 10 The environmental services sector is becoming a pillar of global growth
- 14 Biodiesel for Europe Germany left out
- 15 Perfect synergy in Staßfurt: Energy for the soda works
- 16 Buchen overcomes tricky cleaning of fermenters of a mechanical/ biological waste treatment plant
- 18 Ukraine's environmental services sector on the right track
- 20 IFAT in Munich points the way to a green future

## REMONDIS | WATER MANAGEMENT \_

- 22 MAN chooses water management from REMONDIS Aqua
- 25 REMONDIS Aqua-Select simplifies sewer rehabilitation
- 26 Joint Venture: Positive interim assessment in Turkey
- 28 Mobile wastewater solutions enhance protection of rivers and lakes
- 29 Joint initiative for environmental protection in Brandenburg

## **REMONDIS | ENVIRONMENTAL SERVICES**

- 30 By sea and by land: Werner & Zeisse sweeps the decks clean
- 32 Accident management Lye damage in the tank storage
- 33 Actively shaping European waste policy
- 36 From contaminated site to biotope Cleaning up an industrial site
- 37 REMONDIS supports environmental program in Australia
- 39 Poland: Nationwide return of contaminated packaging

#### PEOPLE

- 40 A life for the Lippe Plant: Werner Pätzold retires
- 42 Minister visits Lausitz Water Board
- 43 Impressions

#### Flag

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Ludger Rethmann, Board spokesperson

## **EDITORIAL**

### **Dear Readers!**

The private water and environmental services sector has for decades been impressive in the way it has demonstrated its high performance and innovative capacity. As the largest German company in the industry by some margin, REMONDIS is spearheading development and is increasingly carrying the idea of the realisation of closed material life cycles into Eastern Europe. Countries such as Russia and Ukraine are increasingly recognising not only the ecological necessity, but also the economic benefits of a resource-friendly water and environmental services sector. REMONDIS partnerships with towns such as Saporoshje are impressive examples of this. Progress is being made in the creation of environmental service structures and the provision of the necessary system and transport logistics by REMONDIS, showing the way for other local governments in this part of Europe.

But, while Eastern Europe strives to approach EU standards and is therefore happy to take advantage of the expertise and the support of the private water and environmental services sector, the European Union is taking a backwards step by passing the Council directive on waste to the detriment of the free movement of goods and thus of fair competition. Article 14 of the new act expands the principles of proximity and self-sufficiency to mixed municipal waste from households. Instead of adhering to the philosophy of the free movement of goods on which the EU was established and allowing secondary raw materials from waste to be used and processed across national borders wherever the best system technology is available, in the future local authorities will, with EU support, tread the retrogressive path of protectionism and economic particularism. Thus, in matters concerning the environmental services sector, we are moving away from the idea of an EU single market and jettisoning the principle of performance to the ultimate detriment of the end consumer, in particular where free overcapacity cannot be filled from abroad. In view of such restrictions to the free movement of goods within the EU, the question of how disposal bottlenecks will be resolved in areas where we still rely upon landfills remains unresolved. To say nothing of the growing shortage of raw materials. For today's waste is tomorrow's source of raw materials, energy and heat. And all this will be required internationally. Even within the EU Commission, the new ruling is not undisputed. In an open letter, which we have printed in this edition, EU Commissioner Stavros Dimas has expressed his reservations against parts of the new directive.

Meanwhile, in Turkey, positive developments are being made in great strides, particularly in the field of water management. REMONDIS Sistem Yapi, a German/Turkish joint venture is further expanding its activities under strict adherence to all EU standards. REMONDIS is thus taking responsibility for wastewater treatment for more than 4.5 million residents in Turkey and plans to expand these activities further in the near future.

You can read about these and other subjects from the world of the industrial water and environmental services sector in this edition. As always, we hope you enjoy reading about them.

Alaman

Yours Ludger Rethmann

# Quo vadis, Europe?

With its new Council directive on waste, the EU is moving away from its previous path. Instead of promoting the free movement of goods, the principle of self-sufficiency is fostered.

# Departure from the single market principle

## FREE MOVEMENT OF GOODS UNDERMINED

With its new Council directive on waste, the EU is departing from one of its founding principles – the free movement of goods – in the environmental services sector. After local government intervention – from Germany – the Council of Ministers was forced to revise the previously applicable regulations and extended the "Principle of proximity for disposal" to include recyclable wastes.

Up until now, the principles of the free movement of goods and free competition have applied to this recyclable municipal waste, as they have to all other tradable economic goods. The original draft of the amendment to the Council directive on waste did not envisage any change to this either.

Now the single market for recyclable waste is effectively being scrapped. On the basis of this new regulation, member states can hand over the recycling of such waste almost entirely to municipal waste disposal companies. Private service providers are thus de facto excluded from competition. The



fact that this resolution is anything but undisputed, even amongst high-ranking EU representatives, is demonstrated by the following letter from EU Commissioner Stavros Dimas. EU Commissioner for the Environment Stavros Dimas

STAVROS DIMAS Member of the European Commission

Strasbourg, 16 June 2008

Dear Mr Florenz,

I would like to thank you for your active engagement in the revision of the Waste Framework Directive and your constructive approach in the negotiation process.

Article 14 of the Council's Common Position on the revision of the Waste Framework Directive introduces an obligation for the creation of an integrated network of recovery and disposal operations. This provision in the Directive does not prescribe whether private or public authorities should participate in the setting up and operation of such a network. The division of responsibilities between the public and the private sector is an internal matter left for the Member States to decide.

Article 14 (1) (subparagraph 1) requires Member States to take measures to establish a network of waste disposal installations and of installations for the recovery of mixed municipal waste. This Article, however, does not extend this obligation to waste for recovery collected separately from private households. Also, if an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste is already in place, be it of a private or a public nature, there is no need for taking additional measures to set it up.

Finally, concerning the lack of a recycling target for manufacturing and industrial waste in the Council's Common Position, as amended, I would like to assure you that the Commission will look into the possibility of setting such a target as a first priority within the context of the 2014 review provided for in the new Article 8 a (point 4).

I trust that this letter addresses your concerns. Should you have any further queries, please do not hesitate to contact me or my services.

EU Commissioner for the Environment Stavros Dimas has also spoken out against autonomous isolated solutions. In a letter to Karl-Heinz Florenz, Member of the European Parliament, he states that the principle of free movement of goods applies for recyclable materials from households. He says that the Commission should ensure that this principle is upheld when the directive is converted into national law.

Anyone who goes his own way calls the meaning of the community into question – and this includes the implementation of EU guidelines on waste law.

EU law

## Community decision by the EU takes precedence

CONVERSION INTO GERMAN LAW MUST FULFIL THE GOALS OF THE COUNCIL DIRECTIVE ON WASTE

After two years of intensive discussion in the Council and Parliament, the time had come: On 17 June 2008, in the second reading of a legislative resolution by the European Parliament, agreement was reached on the revision of the Council directive on waste. Karl-Heinz Florenz, Member of the European Parliament, welcomed the agreement. But he also warned against it being watered down during its conversion into national law. In a guest article for REMONDIS aktuell, the environment and climate protection expert explains his concerns.

At the end of each legislative procedure, there stands a compromise. This is the nature of things. Different, at times conflicting, interests must be taken into account and a middle way found that is acceptable to all involved. This is true of national politics – but, naturally, even more so for European politics, where 27 member states have to agree to joint, viable solutions.

Of course, this agreement on the revision of the Council directive on waste is also a compromise and falls short of the original lofty aims of the European Parliament. However, the compromise does show itself, if we disregard for a moment the provisions embodied in the text that will further open the door to renationalisation in Germany. Thus, legal security is finally achieved by the demarcation of processing and disposal in the area of incineration. In future, waste incineration plants can be recognized as waste-to-energy plants – but only if they achieve the high level of energy efficiency of 65 percent for new and 60 percent for old plants. This is a milestone for the sustainable use of waste and a contribution to the security of energy provision in Europe.

Recycling is also strengthened. In addition to comprehensive regulations on safeguarding environmentally sound recycling procedures and obligations to keep recycling materials separate, the directive sets recycling quotas for paper, glass, metal and plastics (50 percent by 2020) and for construction and demolition wastes (70 percent by 2020) – even though these quotas will only become binding when the directive is converted into law by member states.

Furthermore, the recycling of biological waste is tightened up via a dedicated regulation. The Commission is urged to explore the potential for the treatment of biological wastes and to develop guidelines for the treatment of biological wastes and quality standards for composts and fermentation residues. In actual fact, we wanted to embody a detailed regulation in the text of the directive, since the Commission had not as yet met the request of the 6th Environment Action Program for its own directive. The result is nevertheless more than could be hoped for at first, since biological wastes have now been dedicated their own article in the directive, which forces member states to promote the collection, treatment and use of biological wastes and charges the Commission with the taking of further steps.

With regard to the classification of waste and by-products it should be noted that no compulsory unified mechanism for the determination of by-products is envisaged. The Parliament, which has called for a standard definition for

A clear assertion: Stavros Dimas, EU Environmental Commissioner, confirmed that the free movement of goods would continue to apply to separate collection of household waste. each individual case in line with the criteria of the European Court of Justice, found it as difficult to assert itself on this point as on the question of the definition of the end of the waste characteristic. According to the current regulation, the standards for certain waste flows should be developed in the committee procedure. The Parliament has called for standards to be set within the scope of the co-decision here. Regarding these points, time will tell as to whether the member states can use responsibly the flexibility they have been permitted or whether this will have to be improved by the European legislator in the medium term.

I regard as critical the decision to expand the self-sufficiency of disposal to mixed domestic waste from private households for recycling. In the "old" waste directive, there was a clear separation of responsibilities between disposable and recyclable wastes.

In the case of disposable wastes, member states were able to provide their own processing structure and waste could therefore be processed as close as possible to where it was created. The national responsibility for disposable waste that this established aimed to safeguard the environmentally sound processing of all disposable wastes. For recyclable wastes, on the other hand, the rules of the single market and the free movement of goods applied. This relationship has now been shifted at the expense of the single market. The expansion of self-sufficiency to mixed wastes for recycling from private households means that, in future, member states will be able to block import or export. Furthermore, member states will, in future, be expressly permitted to forbid the import of incineration wastes for recycling if this import results in native waste having to be disposed of.

I have spoken out against these new regulations, since I regard them as an unnecessary and excessive restriction of the single market. Waste should be processed where it is economically and ecologically most sensible to do so. Separation goes against competition to achieve the most efficient plants in Europe and can furthermore undermine the principle of proximity if the route across the border is shorter than the route to the facility in the country in question. Therefore it is of central importance for the development of the waste sector that these new regulations be implemented with a sense of proportion. Attempts to operate clientelism here would damage both the environment and the economy. Germany was the driving force behind the extension of the self-sufficiency of disposal. And it is not environmental considerations but unilateral economic ones that prompted the environment ministry - it is a matter of



Karl-Heinz Florenz is a Member of the European Parliament, a Member of the Commission for Environmental Issues, Public Health and Food Safety and a reporter on climate change for the European Parliament.

strengthening public disposal structures and the protection of local authorities. Now it has been actually decided that the mixed waste from private households falls under the principle of self-sufficiency. The core area of the community provision is thereby concretized – and "protected", in the words of Environment Minister Gabriel in his press release. However, by implication, this also means that the waste collected separately from private households is not subject to the principle of self-sufficiency but continues to be subject to the rules of the single market.

Commissioner for the Environment Dimas, who shares my critical position regarding the self-sufficiency ruling, explained on the day of the vote in Strasbourg, in a letter addressed to me, that in fact the principle of the free move-

"The setting of detailed national standards cannot be the job of the European Parliament. But the national standards developed must subsequently be in line with the spirit of the directive passed by the European Parliament."

Karl-Heinz Florenz, Member of the European Parliament

ment of goods still applies for separately collected domestic waste and assured me that the Commission will ensure that this principle is adhered to when the directive is converted into national law. I have now sent this letter to all environment ministers in the Union. Since the core area of public service provision has thus been put into concrete terms, I expect that Environment Minister Gabriel will consistently liberalize the separately collected domestic wastes in the implementation of the Council directive on waste. This step is necessary in order to achieve in practise the most important goal put forward by the new Council directive on waste, namely the strengthening of the European environmental services sector.



## **Recycling without borders?**

IT IS NOT ONLY THE REGION OF NAPLES THAT COULD NOW BENEFIT FROM THE PRINCIPLE OF THE FREE MOVEMENT OF GOODS

For years, REMONDIS has been trying to alleviate the waste crisis in the Naples area from within Germany, despite legal obstacles. Help is now at hand, thanks to a new EU waste directive. Recyclable materials will finally become a commodity that can be freely traded across national boundaries. This means that neighbouring regions within Europe will be able to benefit to an increased extent from the services of REMONDIS in the future. Including Naples. However, for this to be possible, it is crucial that the principle of free of movement of goods be upheld.

Naples illustrates what can happen: Full sacks of waste on the roadside, piles of rubbish bags in unused storage depots and the illegal incineration of waste on farmland are part of everyday life. Since the closure of the last regular landfill site 14 years ago, up to 100,000 tonnes of waste pile up in the region with unwelcome regularity.

REMONDIS has long made its thermal recycling facilities available to the Italian province of Campania. Every day, up to 2,000 tonnes are transported to REMONDIS plants alone – up until now under difficult conditions. Only under fixedterm emergency assistance agreements was REMONDIS allowed to transport the waste away over the state border. A decision by the EU Parliament may soon change all this.

## **REMONDIS on standby**

It is likely that a new waste directive, under which waste is recognized as a commodity that can be processed into energy, and therefore one which can be freely traded within the EU, will come into effect as early as 2009. Prerequisite: The energy efficiency of the facility to be used for the thermal recycling of the imported materials must be 60 or 65 percent – depending upon its year of construction. The REMONDIS plants are thus on standby for the recycling of even more batches from other European countries in the future.

A functioning local environmental services sector cannot replace the liberalized movement of goods. However, if the basic principle of the free movement of goods is not abandoned, the Council directive on waste can bring about clear improvements, particularly for hazardous wastes. In an open EU single market, not every nation needs its own recycling facilities for all recyclable materials. Instead, European neighbours can co-operate. The principle of self-sufficiency tends to be an obstacle to the solution of cross-border waste problems. The residents of many regions can benefit from REMONDIS' competences and capacities in Germany – as the people of Naples already have.

International assistance makes good sense. After all, REMONDIS has plants that meet the highest environmental standards.

Waste is a valuable resource. This opinion is also accepted within the European Community.

Bar Si Si

Economic growth

# The signs point towards change

THE ENVIRONMENTAL SERVICES SECTOR IS BECOMING A SIGNIFICANT PILLAR OF GLOBAL GROWTH



In opportunities for more efficient production have been thrashed out many times. Now it is a question of using secondary raw materials.

## "In the future economy and ecology will be one."

Prince Hassan of Jordan, President of the Club of Rome

On the one hand, enormous damage from extreme weather, with heat waves, storms or floods. On the other hand, rapidly increasing raw material prices along with the accelerating depletion of natural resources – climate change and raw materials consumption are going to cost. Experts are already talking of global economic growth being in jeopardy. To overcome this challenge, the environmental services sector must gain in importance – on an international level.

Climate change is a reality. According to Münchener Rück, an insurance group operating worldwide, there were three times as many weather-related natural catastrophes between 1994 and 2005 as there were in the 1960s. Even more dramatic was the economic damage: It multiplied by a factor of 5.3 within the same period.

### Climate change is holding the economy in check

The forecasts for the medium to long-term effects of climate change are dramatic. Sir Nicholas Stern, the former Chief Economist of the World Bank, believes that climate change will swallow up between 5 and 20 percent of global economic output by the middle of this century. This is equivalent to a sum in the region of up to EUR 5.5 billion.

With reference to Germany, climatic changes could incur costs of EUR 800 billion by 2050. This was calculated by the German Institute for Economic Research. According to the Institute, grave economic consequences can only be avoided if serious action on climate change is taken without delay. The costs of climate protection are significantly less than the costs of climate change. The British economist Stern and the Institute agree that only one percent of worldwide economic output would have to be spent on this.

Alternative energies with more favourable  $CO_2$  balance To protect the climate, greenhouse gases in particular must be reduced. Experts believe that a reduction in  $CO_2$  emissions of at least 60 percent will be necessary. To achieve this goal, fossil fuels such as coal, oil and gas will have to be replaced by alternative materials on a broad front.

By using residual materials to produce energy, heat and fuel, the environmental services sector makes a decisive contribution to the reduction of  $CO_2$  pollution. Whether biodiesel from waste grease, biogas from sewage sludge, alternative fuels from waste or the generation of energy in waste incineration plants and biomass power stations – the range of opportunities is broad. The contribution that is already being achieved today is also high. According to calculations by the Institute for Economic Research in Cologne, the use of waste to generate power saved fuel imports totalling EUR 343 million in 2005 alone.

## Environmental services sector represents climate protection

Alternative energy generation is one route to efficient climate protection. Consistent recycling is the other, as the use of secondary raw materials reduces CO<sub>2</sub> emissions in a sustainable manner. In paper manufacturing, for example, the required energy consumption can be halved through the use of waste paper.

REMONDIS has an internal network totalling 500 treatment plants. Together, they form a well-functioning recycling mechanism, integrating more than 100 different recycling

In Germany today 400 million tonnes of  $CO_2$  are saved through recycling. This is equivalent to the emissions from 50 million cars. ", In no country on the planet are politicians and the general population doing enough to head off a climate catastrophe and protect the planet for our children and grandchildren." Al Gore, environmental activist and former Vice President of the USA

 procedures. A good 25 million tonnes of collected recyclable materials are used here every year as an alternative source of raw materials.

Value creation at home instead of expensive imports Leaving climate change aside, the use of used materials and the processing of recyclable materials is also good for security of supply. The environmental services sector is therefore of fundamental importance for a country that is poor in natural resources, such as Germany. The Institute for Economic Research in Cologne has calculated that the use of secondary raw materials saved the German economy EUR 3.7 billion in 2005 alone. And at the time, raw materials were still significantly easier and cheaper to get hold of on the world market than they are today.

REMONDIS stands for integrated material flow management covering all links in the value creation chain. Many raw materials are currently rising in price at a breathtaking rate. The price of crude oil, for example, has increased by 91 percent over the last twelve months. And black gold is not the only primary raw material whose value is increasing rapidly. Prices of rare elements in particular, the natural stocks of which decline all the more quickly, are experiencing enormous price increases. For example, the price currently being paid for ruthenium is seven times that of just one year ago.

## Recyclable materials are the raw material source of the future

No end to the raw materials boom is in sight, since the demand from upcoming newly industrialized countries, in particular China and India, will continue to grow. So the strained supply situation in world markets will continue to drive prices from one record level to the next into the future. Until natural resources are used up. And that can happen very quickly. For example, sources of fossil energy that are currently available and technically developable will be used up in less than 50 years.

It is becoming ever clearer that climate protection and resource preservation are no longer optional. They became compulsory long ago. We cannot get by without the comprehensive use of secondary raw materials and the consistent utilisation of  $CO_2$ -reducing technologies. Recycling rates in Germany currently lie at 65 percent. Of this, 30 percent relates to the recycling of materials and 35 percent to energy recovery. Significant increases are possible in both fields.

#### International initiatives needed

However, Germany is not an island. And global challenges cannot be overcome within national borders. As important as it is to drive forward domestic activities – effective results can only be achieved if improvements are achieved on an international basis.

One important factor is the creation of the required infrastructure. Investments of EUR 545 billion are required for the construction of the relevant systems and plants in the countries of Central and Eastern Europe. In this context, the question arises of whether it is actually necessary to construct the full range of recycling facilities in each country. It would seem more sensible, at least within the European Union, to establish a single market for environmental services. This would facilitate co-operation and the free movement

Between 2000 and 2005 alone, world prices for raw materials imported into the Euro zone rose by 81 percent.



of goods – which are taken for granted in other sectors of the economy – , giving ecological progress a considerable boost.

## Environmental services sector becomes key branch of industry

Whether in Germany or other countries of the world: It is an undisputed fact that the environmental services sector will play an ever more important role in the future. According to management consultant Roland Berger, the world market for environmental technology will reach a volume of EUR 1.1 billion by 2030. Thanks to its leading position, Germany's environmental technology should profit disproportionately from this dynamic expansion. As early as 2020, according to the Roland Berger study, environmental protection 'made in Germany' will be able to outstrip the established key industries of mechanical and automotive engineering. Thereby becoming the leading market of the future. Economic life cycle management can effectively reduce global supply and price risks.

## Climate protection at REMONDIS

CO<sub>2</sub>-saving techniques and technologies have long been on the agenda for REMONDIS. In addition to the transport industry, electricity and heat generation also take centre stage.

- Energy generation: REMONDIS produces energy in thermal recycling plants and biomass power stations.
   Electricity, steam and heat not only cover the plant's own requirements, but can also be supplied to the public grid.
- Alternative fuels: Waste fractions with a high calorific value yield high-power alternative fuels for cement works and large combustion plants.
- Biodiesel: Every year, EcoMotion produces 212,000 tonnes of biodiesel – from used cooking oils, animal fat residues and vegetable oils.
- Biogas: Biogas is used as a fuel or converted into electricity and heat in block heating and generating plants.
- Plants: As a pioneer and expert, REMONDIS plans, builds and operates climate-protecting and resourcesaving plants for third parties.

Even today, expenditure on materials represents the biggest cost item in the manufacturing industry. It makes up 40 percent of total expenditure. 1 1/1

# Biodiese

Royal visit: In June, His Royal Highness Prince Henrik of Denmark learnt all about biodiesel production in Løsning.

#### Biofuel

## **Biodiesel for Europe**

GERMANY LEFT OUT - NEW BIODIESEL PLANT MAY ONLY PRODUCE FOR OTHER COUNTRIES

In the Danish town of Løsning, a further biodiesel plant launched the second generation of operation. The biofuel produced here is far superior to both conventional diesel and some other biodiesels. Despite this fact, drivers in nearby Germany cannot use it to fill their cars. For Germany's Biofuel Quotas Act has broken ranks with current European practise.

", It is unthinkable that we in Germany should develop forward-looking procedures for the production of excellent biofuels, and then renounce these technologies of tomorrow or render our investments worthless through legal

**intervention.**" Norbert Rethmann, President of the Board of Directors of the RETHMANN group

More than 56 million litres of biodiesel are produced per year at the plant on the Jutland peninsula. Their basis is on animal fats, which occur as the waste product of agricultural beef and meat products. The use of animal fats means that there is no competition with food production. In addition, the biofuel from Løsning boasts an excellent  $CO_2$ balance: In comparison to conventional diesel, almost 80 percent of  $CO_2$  emissions are saved. Thus the  $CO_2$  reduction potential is almost twice as high as for biodiesel made of rapeseed.

Despite these convincing advantages, the environmentallyfriendly fuel is only available to the Danish and European transport industries. You will not find it at German filling stations. The background is that fuels from animal residues, so-called FME biodiesels, are not permitted in this country – neither as a pure fuel nor in mixtures. Even though such fuels meet the European biodiesel standard.

Furthermore, from 2012, animal fats will no longer be permitted as the raw material for biodiesel production in Germany. Contrary to the EU demands, the majority of usable residual products will thus not be recognized as biomass – very much to the detriment of the domestic agricultural and meat production industries.

EU Commissioner Mariann Fischer Boel praised the biodiesel highly at the official production launch. But there was also clear criticism of the German biofuel policy.

The plant was established by two strong partners: Daka Biodiesel a.m.b.a., the Danish market leader in the processing of animal by-products, and the SARIA group, which is part of RETHMANN. With more than 40 production plants for the processing of animal by-products, SARIA is represented in eight European countries.

## **Perfect synergy**

## ENVIRONMENTAL SERVICES SECTOR OFFERS ITS SERVICES TO INDUSTRY - ENERGY FOR THE SODA WORKS

On 23 May, EVZA's thermal waste processing and recycling plant in Staßfurt, Saxony-Anhalt, was officially commissioned in the presence of Dr. Reiner Haseloff, Minister for Economy and Labour of the federal state of Saxony-Anhalt, and Dr. Marek Prawda, ambassador of the Republic of Poland, as well as numerous other guests from the fields of politics and economics.



REMONDIS, as the owner of EVZA, has invested around EUR 150 million in the grate firing plant with two incineration lines, thereby directly creating 60 new jobs at the site in Staßfurt. Every year the plant can process approx. 380,000 tonnes of household, commercial and industrial waste with a calorific value of 6000 to 15,000 kJ/kg to generate heat and power. Waste delivery is designed such that it can take place either by road or by environmentally friendly rail transport.

## Higher efficiency thanks to the latest technology

The efficiency of the up-to-the-minute plant is significantly higher than that of other incineration units. Depending upon the operating mode, EVZA's efficiency lies between 60 and 80 percent. The power output is up to 165,000 MWh/a. Furthermore, up to 365,000 MWh of process steam is generated and supplied per year. Using the energy released by the incineration process in Staßfurt, REMONDIS supplies the neighbouring soda works. The soda works can operate a new plant for the production of heavy soda, which was commissioned at the same time, from the steam supplied by the EVZA plant. Thus the production of heavy soda can







be increased to around 100,000 tonnes per year. Heavy and light soda are used as raw materials in the glass industry, in the production of detergents and in the chemicals industry.

At the official inauguration ceremony, the director, who attended this event, emphasized the landmark character of the close co-operation. The provision of energy and heat from waste directly to the industrial site for the production of high-quality raw materials is nothing less than the realisation of a perfect synergy of environmental services. The invited political representatives also emphasized the importance of the high levels of investment in the historic industrial location of Staßfurt and expressed the hope that this purely private economic involvement would point the way for other investors in the region and beyond. However, it is doubtful whether there will be further investment in thermal treatment plants in view of the genuine overcapacities that already exist and the restriction of the principle of free movement of goods for domestic waste on the part of the EU. The EVZA is only marginally affected by these issues because, firstly, it benefits from long-term delivery contracts and, secondly, has a direct customer for electricity and heat in the neighbouring soda works.

The recycling of waste into heat and power protects natural resources – for example primary energy sources such as oil, coal or natural gas.



Industrial cleaning \_

## **Anything but simple**

BUCHEN OVERCOMES TRICKY CLEANING OF FERMENTERS OF A MECHANICAL/BIOLOGICAL WASTE TREATMENT PLANT

Even difficult problems can be solved. Strategies that combine extremely high safety standards with a prudent procedure represent the key to success. For Buchen the problem was the emptying of three fermenters from mechanical/biological waste treatment plants. A challenge that gave the experts more than one difficulty to contend with.

Industrial cleaning and hazardous wastes – these are the main fields of Buchen UmweltService GmbH. One of the long-standing customers of the specialist company based in Cologne is a power supply company that operates plants for the mechanical/biological treatment of waste in Southern Germany. The biogas created as part of the process is used to power block heating and generating plants. When procedural problems arose, three fermenters had to be emptied. These form the centrepieces of the plants, in which the supplied materials are decomposed in a fermentation process and converted into biogas. A case for Buchen!

", The performance of the work has shown that we have chosen the right partner. The project planning and the custom concept meant that the work was carried out safely and on time."

Christian Eugster, Project Leader for the client company on site

At the beginning the project looked like an assignment with many unknowns. No-one could predict exactly what the Buchen team could expect to find inside the fermenters, because the condition of the biomass they contained could not be precisely determined. Only one thing was certain: Simply opening them was not an option. After all, it seemed probably that high concentrations of carbon dioxide, hydrogen sulphide, methane and ammonia would be present in the voluminous tanks.

## Safety first

In order to eliminate any risks from the outset, the specialists worked out a comprehensive safety concept. Working in close co-operation with the plant operator, explosion and environmental protection measures were developed and reliable health and safety precautions established. These included working with full protection as well as the vaccination of all team members. Weekly briefings were held to ensure the attention and care of the team. Their subjects ranged from quality aspects regarding safety and hazard prevention to environmental protection aspects.

#### Winter protection allowed for

The work had to begin quickly, and in this case that meant during the winter months. To minimize weather-related hindrances, Buchen equipped the building site with winter protection. The emphasis was on safety devices that could achieve effective results at a low cost. For example, entrances to the manholes were encased in a windbreak and the team's breathing equipment was supplied with heated air from the storage hall.

### Low-emission burning off of biogas

In the first actual stage of work the priority was to get rid of the hazardous gases. Buchen decided to inertize the fermenters. To achieve this, a gas was introduced that could not react with the substances inside the tank, or could do so to only a minor degree. The introduced gas suppressed the biogas that was present so that it could be drawn off safely.

Using the torch belonging to the plant, the low-emission burn-off of the biogas could take place. Continuous measurements of the varying gas concentration and the addition of adjusted amounts of support gas created an optimal combustion mixture. The full burn-out of the pollutants was thus possible. The TA Luft emission values that were relevant to the operator were clearly adhered to and documented.

The gas-free and ventilated fermenters could now be entered for the first time. In order to rule out any health hazards that may still have existed, Buchen took the precaution of checking the ammonia levels continuously using online monitoring. Under full protection, the biomass that was

#### Buchen – service provider with broad product range

From traditional disposal services through complex clean-up projects to comprehensive waste management: Buchen UmweltService offers optimal solutions for customers from trade and industry. With over 2,000 employees, the company of the REMONDIS group is one of the leading companies in its industry.

present in the tanks was broken down using high-pressure water and sucked out by means of a powerful air conveying system. All work was performed in close consultation with the state government.

## Short implementation period thanks to intensive preparation

Despite the comprehensive work quota, it was possible to conclude the project speedily. All work was performed without interruption because the well thought-out safety concept was applied in all fields. So there were neither health and safety related incidents nor complaints from the surrounding area during the cleaning. The emission protection measures and the caution of all those involved in the project meant that no emissions were perceived.

Both the customer and the responsible authorities regarded the solution of the challenging task as entirely positive. For Buchen, too, the cleaning of the fermenter was something special: "We are expanding our services and opening up new fields – from a geographic point of view, but also in relation to the spectrum of activities", said Project Engineer Markus Hutfließ. "The success of this project will give us new impetus." Safety is the top priority. Buchen is conquering new market segments with its impressive concepts.

#### Ukraine

# Ukraine's environmental services sector on the right track

SAPOROSHJE TAKES THE LEAD IN THE ESTABLISHMENT OF A MODERN WASTE ECONOMY



Unlike the current situation in Germany, in Eastern Europe Public Private Partnerships are increasingly a model for success on the road to a modern water and environmental services sector. To this extent, Saporoshje has good role models in its neighbouring countries. In the Ukrainian city of over a million residents, the major public-private partnership company of REMONDIS is further expanding its activities in the environmental services sector. Its efforts to make the urban environment cleaner and therefore improve quality of life through the construction of a modern waste disposal infrastructure are pointing the way for the whole of the Ukraine.



In Ukraine, Norbert Rethmann, President of the Board of Directors, is impressed by the progress achieved in Saporoshje. An attractive green belt, numerous inner-city parks, but also ageing production facilities, antiquated environmental standards and major ecological problems: At one time the industrial metropolis of Saporoshje in the south-east of Ukraine did not differ so very much in terms of its moderate quality of life from many other towns in eastern Europe. Now things are changing. In order to establish an upto-date environmental services sector, in 2007 the town decided to enter a Public Private Partnership (PPP) with REMONDIS. In addition to the renewal of its vehicle fleet, its goals were the construction of new sorting facilities for the separation of recyclable materials, modern recycling systems and a more responsible way of dealing with waste as a resource.

### PPP brings change to Saporoshje

A U-turn is urgently required: The Donetsk-Dnieper industrial area, of which the town forms a part, is one of the most polluted regions of the country. Rapid economic growth and increasing consumption are leading to additional pressure for action. Something must be done sooner rather than later. In the past year, the local council, a local waste disposal company and REMONDIS agreed to establish a PPP company. Its aim is to create an environmental services sector based on the model of Poznan. The joint company REMONDIS Saporoshje GmbH has now been established. The priority now is the future-oriented expansion of existing infrastructures – a task that the PPP is already pursuing vigorously. REMONDIS's expertise, but also its financial support, are helping to drive things forward rapidly.

#### Important intermediate goals achieved

In the first stage, the existing equipment in Saporoshje was supplemented by additional vehicles and containers. After all, some equipment is required if over a million citizens are to be looked after properly. Alongside this, the company buildings were modernized to create the right setting for efficient work. The existing sorting plant has also now been comprehensively renewed. This means that the separate collection of recyclable materials can begin in August. Initially, plastics and glass will be collected separately at special collection points.

"We have come a very long way in a short time. Just twelve months passed between the Letter of Intent and the commencement of operations. With 300 employees and 180 vehicles and items of equipment, REMONDIS Saporoshje is today providing services for a million citizens."

Friedrich Buchholz, director of REMONDIS Saporoshje GmbH



Even now, the landfill site used is very well equipped and well organized for Ukrainian conditions. But waste is repeatedly dumped illegally around the grounds. It was possible to improve this situation significantly. The town's appearance has also benefited because city cleaning, care of green spaces and winter service are now also in the hands of the PPP.

#### Looking towards a good future

The focus is currently still on the field of municipal waste. However, new disposal and recycling routes are also being created for trade and industry. REMONDIS Saporoschje has plans for the future. In order to be able to feed larger quotas of recyclable materials into the cycle, further sorting facilities are being planned. In place of two unsorted landfill sites, which pollute the ground water and release environmentally damaging methane gases, a modern REMONDIS has now established itself as a market leader in Poland with 35 locations. The concept of partnership between local councils and private business is also impressing politicians, who are accelerating the success of the PPP model with liberalized framework legislation.

landfill site that meets western European standards is to be created. In addition, a composting plant rounds off the picture of a modern environmental services sector.

### A rethink is underway

The environmental budget of the Ukraine is currently running at only 1.1 percent of the state budget. This shows that ecology does not yet enjoy the priority it is normally accorded further west. But the way is open. Further publicprivate joint ventures are to be created based upon the model of Saporoshje. This is the lead-up to a change that would allow Ukraine, too, to meet EU standards.



A full success: On every day of the exhibition, countless visitors gather information at the REMONDIS stand.

#### Market

## The future of water management and environmental services

THE IFAT IN MUNICH BREAKS ALL RECORDS AND POINTS THE WAY TOWARDS A GREEN FUTURE



At the Munich exhibition centre on the site of the former Riem airport, international providers of water, waste water, waste and recycling services and technologies held a get-together. This year's IFAT showed that, in addition to the energy industry, the water management and environmental services sector in particular must implement the increasing requirements of environmental and climate protection worldwide.

The potential here is enormous. The catching-up that needs to be done in the fields of resource preservation and environmental services in the newly industrialized nations outside the EU and North America is gigantic. Correspondingly, based upon their own calculations, analysts at management consultant company Roland Berger have estimated an increase in the global market volume for environmental protection technology and services of EUR 2,200 billion by 2020. The largest marketplace for the companies of this industry is the IFAT in Munich. And the

", The world of water management and environmental services meets at the IFAT!" Egbert Tölle, REMONDIS board member stand for REMONDIS, one of the largest and most important exhibitors in the water management and environmental services sector, was one of the most important points of call for countless visitors.

#### Record numbers of exhibitors and visitors

The spirit of optimism that can be felt in the industry was reflected in the significantly increased numbers of exhibitors and visitors. 2,555 exhibitors presented their wares on a total of 192,000 m<sup>2</sup>, an increase of 30 percent. 120,000 visitors came to Munich for fact-finding purposes or to make business contacts, up by over 10 percent. "These results mean that the IFAT is the largest and most important exhibition in the world for environmental technologies and



Dr. Hermann Niehues took the opportunity to make highcalibre contacts at the exhibition.

High-ranking guests: Federal Minister for the Environment Sigmar Gabriel (centre) and the Bavarian Minister for the Environment Otmar Bernhard (left) insisted upon a visit to the exhibition stand.



Egbert Tölle talking to customers at the IFAT.

Visionary contribution: Norbert Rethmann met with much approval at the communication forum.

Established tradition: Guests from all over the world met up at the REMONDIS evening, which on this occasion was held in the Parkcafé.

environmental services. Its international ranking is also emphasized impressively by the presence of numerous high-ranking government delegations from all over the world", said Eugen Egetenmeir, Assistant Director of Messe München GmbH.

So it was not surprising that, right from the start of the exhibition, REMONDIS had important guests from the German Ministry for the Environment. Federal Minister Sigmar Gabriel took plenty of time out of his tour of the exhibition to discuss REMONDIS's current activities and the political framework conditions in the industry with Norbert Rethmann. His visit to REMONDIS marked the start of a five-day communication forum in a pleasant atmosphere, at which the Lünen family company was able to welcome visitors and delegations from countries including Poland, Turkey and China. It was not uncommon for promising business contacts to lead to concrete results even at the exhibition stand.

## United Nations: "Decade of water"

A special feature this year was the subject of water management, secondary raw materials and the generation of energy from waste. Efficient water management has a huge role to play in the "Decade of water" announced by the United Nations, forming the foundation for dealing with this most important of all foodstuffs in a sustainable manner. REMONDIS Aqua, a leading private provider of water and wastewater services in Germany, exhibited the entire range of its technical competences on the stand and was open to questions from the many interested expert visitors. REMONDIS presented itself impressively at the IFAT as a full-range service provider for all topical issues regarding water management and environmental services. The attractive and modern exhibition stand formed a central point of contact for the entire industry. REMONDIS director Egbert Tölle was pleased with the result: "In times when resources are becoming scarcer, the private water management and environmental services sector is, even today, developing into a pillar of worldwide raw materials provision and climate protection. The IFAT is the ideal platform for presenting the industry's entire portfolio of services to a broad, international technical public. There is no comparable forum in the world."

The exhibition has highlighted viable routes towards an environmentally-sound future for our planet. It is up to international policy-makers to improve the framework conditions for an efficient environmental services sector. Even today, REMONDIS is one of the leading companies involved in the realization of this project. When we meet up again in Munich in three years time, we will see how far we have come on the road towards a future of environmental services. REMONDIS presented futuristic solutions for effective climate protection and resource preservation. M-AN 33

Progress report for REMONDIS aktuell:

## REMONDIS Aqua for MAN – "reliable, flexible, cost-effective"

MeAN 530

CONTRACTING IN WATER MANAGEMENT – OPPORTUNITIES AND EXPERIENCES FROM THE CUSTOMER'S POINT OF VIEW



With comprehensive expertise in water management, REMONDIS Aqua has for three decades been impressing both public and private partners. MAN Nutzfahrzeuge AG based in Munich is the largest company of the MAN group and one of the leading international providers of commercial vehicles and transport solutions. In the financial year 2007 the company sold more than 93,000 trucks. At its site in Munich, driver's cabs for heavy commercial vehicle class are painted according to customer requirements and then fitted on various production lines.

At the end of 2005, MAN Nutzfahrzeuge AG decided to contract out water management at its Munich site to REMONDIS Aqua GmbH & Co. KG. In addition to the management of the central wastewater treatment plant (neutralization plant and demulsification plant) including the pre-treatment plants, the monitoring and supervision of the demineralized water supply plant were also integrated in the management contract.

After two years of operating experience with the implemented contracting model, REMONDIS aktuell asked MAN which major issues were relevant for the implementation of the contracting model with REMONDIS at the time and to what extent MAN's expectations regarding this contracting project had been fulfilled. Also worth examining is the question of whether concentration on the core business – one of the main key words of the route of contracting in water management – could be achieved and what, in the opinion of MAN, are the limitations of the implementation of this model.

N-AN 240

REMONDIS aktuell spoke about this subject to the Project Leader responsible, Jens Schelp, who had responsibility both for MAN's project development and also for the operational implementation of overall controlling. **REMONDIS aktuell:** "Mr Schelp, what reasons can you give us as to why MAN initiated the contracting project in the field of water in 2005?"

Jens Schelp: "In order to meet the ever-increasing demand for vehicles from the MAN group, comprehensive investments into production expansion were necessary in 2005. In the field of wastewater, this meant that it was necessary for MAN to expand these plants. At this point in time, we were looking for solutions for possible expansion variants based upon state-of-the-art technology. Hand-in-hand with this, our research focussed on the optimization of process safety for the plants and the realignment of the organizational form for the management of wastewater treatment."

**REMONDIS aktuell:** "In the end you decided upon REMONDIS Aqua as your partner. What were the reasons behind this decision?"

Jens Schelp: "We structured the implementation process for this project in such a way that the first step was to request a concept proposal from potentially interested parties. During the technological evaluation of the concept, it became clear that REMONDIS had very extensive experience in this field from other projects (and good references). Solutions were created that met MAN's high environmental standards and were impressive due to their overall cost effectiveness. "

**REMONDIS aktuell:** "So, you made the decision based upon technological competence and the cost effectiveness of the concept proposal."

Jens Schelp: "Not on those points alone, but they were two important aspects. Confidence in a partner was just as important. This was where REMONDIS impressed us, both due to examples of successfully realised projects and due to the commitments made within the framework of the project development phase. This represented a foundation that could be built upon in order to ultimately begin the realization of the project with REMONDIS. The contract was designed to ensure that MAN would retain the greatest possible flexibility, which is absolutely crucial for a production company like MAN."

**REMONDIS aktuell:** "Can you give any examples on the subject of flexibility?"

Jens Schelp: "In our contract, for example, we clearly defined the intake loads in the wastewater flow for which

REMONDIS is to take over the relevant contractual guarantees. These definitions mean, firstly, that MAN is assured that all operating states are covered by the management contract and, secondly, that they offer our partners the security of designing and organising the plants according to the appropriate requirements. In this context, we have found REMONDIS to be extremely flexible and productionoriented. It is accepted that not all operating states can be precisely predicted at all times and that MAN must have the appropriate flexibility in the field of production. This is what earns the money, the underlying infrastructure areas must be clearly subordinated to this. In REMONDIS we have found a partner that will develop and implement solutions on a service-oriented basis for operating states that may deviate from the contractual definitions." Sustainable cyclical management of water – a service of REMONDIS Aqua.



## "REMONDIS Aqua works to our high ecological standards."

Jens Schelp, Project Leader at MAN Nutzfahrzeuge

**REMONDIS aktuell:** "One significant argument put forward for the implementation of contracting solutions is that services can be clearly defined, thus giving rise to plannable costs for coming years. Does this apply to your project?"

Jens Schelp: "I can answer this with a clear 'Yes'. Just the fact that, in concluding this contract, MAN had an agreed cost framework available for the term of the contract is a further important argument for its implementation. This was confirmed in operation, not least because purchase conditions, interfaces and quality objectives were very precisely defined during the project development."



 REMONDIS aktuell: "Did the implementation of the contracting model completely relieve you of all organizational tasks relating to water management and, if not, which functions do you still have to take care of?"

REMONDIS Aqua fulfils MAN's individual requirements at its Munich site – as it does for customers throughout Europe. Jens Schelp: "MAN deliberately chose the route in which MAN still bears responsibility for the licences for the plants covered by the contracts. It is very important to our company that MAN's high standards for environmental protection and sustainability are applied in these environmentally-relevant fields. For this reason we check the services of REMONDIS meticulously so that we can fulfil our obligation of accountability towards the authorities at any time. Of course, in this context, it was also important that REMONDIS was certified in accordance with DIN ISO 9000 and 14000 for the operation of wastewater facilities."

**REMONDIS aktuell:** "What are the economic benefits of the realization of this project?"

Jens Schelp: "REMONDIS has declared itself willing to make and implement the necessary investments in the framework of the conversion. This saves MAN from having to make investments in this peripheral area. Thanks to its core competence in the field of water, REMONDIS is able to present the best possible solutions from an economic point of view. Having all these services, i.e. planning, engineering, plant construction and management, under one roof and the synergies that this creates has become a major benefit for the overall cost effectiveness of this project." **REMONDIS aktuell:** "You have mentioned a great many positive aspects of the realized project. What do you regard as the limitations of contracting solutions in the field of wastewater?"

Jens Schelp: "When implementing such projects, it is important that the industrial company also engages intensively with this subject during the initial stages. That is crucial for the successful organization of the contract and project and makes it possible more or less to withdraw from this field right after realization. If a company is not prepared to invest this time at the start of the project, the project loses its vision for sustainable, economical and state-of-the-art changes that may be necessary. All the time and effort put into the development of innovations is thus lost, even if this could give rise to clear long-term economic benefits."

**REMONDIS aktuell:** How would you summarize the cooperation to date?"

Jens Schelp: "We have found a partner that responds very reliably and flexibly to our requirements and adapts accordingly. The plant technology that we have currently installed with REMONDIS, with its maximum availability and as yet no breakdowns at all, will help to ensure our high production figures. Incidentally, MAN has also been able to realize significant cost savings within this conversion."

**REMONDIS aktuell:** "Herr Schelp, thank you very much for this interview."

## **REMONDIS Aqua-Select** Makes sewer rehabilitation easier

COST-OPTIMIZED CONDITION ASSESSMENT IN NETWORKS USING INNOVATIVE SOFTWARE

Already at the 2008 IFAT in Munich, the exclusive contract for the use of the Aqua-Select software was signed between REMONDIS Aqua Services GmbH and the Karl Jansen Sachverständigenbüro für Kanalsanierung (Technical Expert Service for Sewer Rehabilitation). The software makes it possible to determine the condition of sewer networks based on random testing of 20 % of the sewer pipe lines. The resulting estimate for the entire network has an accuracy of 95 %. This selective inspection makes it possible to capture the condition of the network much more quickly and cost-effectively than a conventional, across-the-board inspection.

The Aqua-WertMin program, which creates deterioration forecasts, helps determine the ideal times to invest in rehabilitating the sewer network. This program makes it possible not only to determine the investments required for the network to reach a certain condition, it also simulates changes in the condition over the course of the defined investment. The right time for rehabilitation can be identified by knowing how deterioration will progress. The clear-sighted rehabilitation planning thus makes it possible to plan for the long-term, to coordinate the rehabilitation work with other measures and give a measure of predictability to the investments. These tools allow changes in charges to be managed over the long run. The state-of-the-art software for selective inspection and sewer network deterioration forecasts completes the new REMONDIS Netzlogistik (Networks Logistics) product line. In addition to the processes for cost-optimized rehabilitation and inspection strategies, REMONDIS Netzlogistik (Networks Logistics) includes all other services for those in charge at the local level such as GIS, optimized maintenance management and charge management.

The software and service package from REMONDIS Aqua thus also plays a role in optimizing costs and improving the stability of charges with municipal partners. REMONDIS Netzlogistik (Networks Logistics) offers trendsetting software solutions to effectively manage water resources for industry and municipalities.



Contract signing at the IFAT. From left Carsten Machentanz, executive management, Karl Jansen, Sachverständigenbüro für Kanalsanierung (Technical Expert Service for Sewer Rehabilitation), Roland Ruscheweyh, executive management



International wastewater treatment

## **Positive interim assessment in Turkey**

JOINT OPERATION WINS FAVOUR WITH CONSIDERABLE PROGRESS



For more than a year and a half now, REMONDIS has also been active in water resources management in Turkey. The forerunner is REMONDIS Sistem Yapi, a German-Turkish joint venture. The company operates seven sewage treatment plants and a local waterworks in municipalities in various parts of the country. Despite its relatively short existence, it has already had sustainable successes.

In wastewater treatment, REMONDIS Sistem Yapi provides services amounting to a population equivalent of 2.1 million for the city of Bursa. In addition, the joint venture is involved in environmental services.

> Example of Bursa: REMONDIS Sistem Yapi operates a total of three sewage treatment plants for the 1.4 million inhabitants of the fourth-largest city in Turkey. Two process municipal wastewater and the third treats runoff from a landfill. The plants, which are equipped with state-of-the-art technology, satisfy all EU standards. Which means that the requirements for the quality of the treated wastewater have been consistently met right from the very outset.

REMONDIS Sistem Yapi treats 330,000 cubic meters of wastewater in the two municipal plants on a daily basis. The multi-phase treatment process starts with an automated pre-processing phase. This is followed by an anaerobic phase, an activation basin and an aeration basin. The principle of activated sludge biology forms the basis. These techniques can be used to effectively reduce carbon and nitrogen compounds as well as phosphorus content. The third plant's job is to pre-treat runoff from a landfill until it can be added to the municipal wastewater treatment system. This is no small task because runoff from landfills has a high level of contamination. In relation to the daily capacity of 500 cubic meters, its contamination represents that of the wastewater of 139,000 inhabitants. In its treatment processes, REMONDIS Sistem Yapi relies on the stage cleaning system which is a particularly stable and highly efficient process.

The sewage sludge from the plants in Bursa is currently stored temporarily in sludge-drying beds after it is thickened and automatically dewatered. This will soon change: the plan is to construct a thermal dry sludge facility. In the future, the automatically dewatered sewer sludge will be dried here until it can be used as an alternative source of energy in a nearby cement factory.



Environmental services in Turkey

## **Dr Hermann Niehues in Bursa**



Dr. Hermann Niehues, Chairman of the Supervisory Board REMONDIS (2nd from right) inspects the wastewater treatment plant in Bursa together with Sölen Arkun, REMONDIS Sistem Yapi, Torsten Weber, REMONDIS International, and Uwe Oemmelen, Rhenus AG.

On April 20, Dr Hermann Niehues, Chairman of the Supervisory Board of RETHMANN AG & Co., visited the wastewater treatment plant of the city of Bursa in Western Turkey with its more than 1 million inhabitants. The plant is the largest of the three wastewater treatment plants operated by the Turkish REMONDIS subsidiary, REMONDIS Sistem Yapi, and one of the largest of its kind in all of Turkey.

During his visit, Dr Niehues learned about the plant's capacity and technology. He then spoke with his REMONDIS colleagues based in the REMONDIS Sistem Yapi main offices located roughly 90 km away in Istanbul about the positive development of the business in Turkey and the outlook for private water resources management and environmental services. "Turkish municipalities are increasingly relying on the services offered by private companies offering water resources management and environmental services to satisfy European standards. We therefore see a great amount of potential for development in Turkey in water and treatment management," explained Dr Niehues.

## Opening of the Meiller dumping truck plant in Turkey

REMONDIS IS AWARDED CONTRACT FOR ALL WASTE MANAGEMENT ACTIVITIES

On 26 June 2008, the long-established German company, F.X. Meiller Fahrzeug- und Maschinenfabrik GmbH & Co. KG, opened as part of a joint venture with the Turkish iDogus Otomotiv Servis ve Ticaret A.S., the new Meiller Dogus dumping truck production and assembly plant in Turkey. The Turkish labour minister and more than 300 guests, including the executive management of REMONDIS Sistem Yapi, attended the opening ceremony.

Meiller Dogus produces dumping trucks for the European and Central Asian market at its site in Sakarya in the Marmara region of Turkey REMONDIS Sistem Yapi has assumed responsibility for all waste management activities for the new Meiller plant. They include the collection, transport and recovery of all packaging materials and scrap steel. Meiller thus relies on the familiar high performance standard of the long-standing recycling partner REMONDIS.



(from left to right) Mr Osecki, REMONDIS PI; Mr Weber, REMONDIS AG; Mr Sölen Arkun, REMONDIS Sistem Yapi; Mr Franz Xaver Meiller, Meiller, and his wife; Mr Meyer, Meiller



Wastewater

## As clean as they come

MOBILE WASTEWATER SOLUTIONS ENHANCE THE PROTECTION OF RIVERS AND LAKES

The goal is for as many systems as possible to be connected to the centralized wastewater sewer system. But in many rural regions, it is, in some cases, impractical to establish a connection to the public sewer system. Decentralized treatment solutions are needed to ensure that rivers and lakes can be effectively protected. Since the beginning of 2008, the WAL operations also head up this effort in the region of Dresden as well.

The WAL operations' water management strategy incorporates decentralized treatment solutions. The Wasserverband Lausitz Betriebsführungs GmbH (WAL operations) assumed responsibility for technical and commercial management of mobile water treatment activities for the Freital technical plants. The contract was awarded following a competition. The REMONDIS Aqua subsidiary located in southern Brandenburg submitted the lowest bid to beat out strong industry competitors. Its new area of responsibility includes both wastewater that accumulates in non-draining collection basins as well as sludge from small treatment plants. The WAL operations also oversee the technical basin inspection of more than 600 customer facilities. A subsidiary in Freital guarantees proximity to the client and its customers.

## Certification provides proof of technical expertise

Technical expertise is in demand as small treatment plants incorporate more advanced technology. Which is why the regulatory authorities require a maintenance contract to be signed with qualified companies when commissioning small biological treatment plants. To provide proof of its technical expertise, the REMONDIS Aqua subsidiary sought to become certified by the Deutsche Vereinigung für Wasserwirtschaft, Abwasser und Abfall (German Association for Water, Wastewater and Waste).

The WAL operations look after the beautiful area surrounding Dresden – as here at Pillnitz Castle.

28 I REMONDIS AKTUELL

**Environmental protection** 

# Partnership with rights and responsibilities

JOINT INITIATIVE ENCOURAGES SUSTAINABLE BUSINESS DEVELOPMENT IN BRANDENBURG

It is the responsibility of society as a whole to handle the environment with care. This cannot be achieved through legal and tax obligations alone but requires the commitment of everyone involved, including the private sector. A groundbreaking initiative is creating new stimuli in Brandenburg. Involved in this initiative is the WAL operations, a subsidiary of REMONDIS Aqua.

Nine years ago, the state government and private sector formed the Brandenburg environmental partnership. This voluntary venture works toward improving resource conservation and energy efficiency. The environmental objectives are linked to economic benefits to ensure that both the environment and economic development stand to gain. The companies that are members of the partnership have committed themselves to making a contribution to improving the environmental situation that extends beyond the legal framework. In return, the state government makes the actual implementation of environmental law a bit easier, for example, it shortens approval processes.

In response to a decision taken by the taskforce of the Ministry for Rural Development, Environment and Consumer Protection of the state of Brandenburg, the Lausitz Betriebsführungs GmbH (WAL operations) has also become a member. Prior to being accepted as a member, the plant was required to introduce an audited quality and environmental management system. "Our successful certification means that we are already today making a decisive contribution to more customer service and improved environmental protection," said Marten Eger, managing director of the WAL operations. As a subsidiary of REMONDIS Aqua, the Senftenberg-based company oversees water management for the Wasserverband Lausitz. This includes all activities pertaining to drinking water supply and wastewater treatment including investment management. The company also manages both the technical and commercial side of the Tettau waterworks. Around 10 million m<sup>3</sup> of drinking water is produced here every year. The plant supplies 10,000 people in 25 cities and municipalities in the region. It also supplies the neighbouring drinking water boards and industrial and commercial enterprises in Saxony and Brandenburg.









**REMONDIS I Environmental services** 

Ship cleaning

## By sea and by land

WERNER & ZEISSE SWEEPS THE DECKS CLEAN

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Whether submarine, container ship or yacht: a ship has to be built before it sets sail. And, just like any other production, the key is consistent recycling and safe disposal solutions. Werner & Zeisse is a specialist in ships and shipyards. For more than 75 years, this Heikendorfer company has been the centre of the maritime world.



Among the largest customers of the REMONDIS subsidiary is HDW – one of the premiere addresses in the world when it comes to ships. HDW, as part of the European shipbuilding group, ThyssenKrupp Marine Systems, comprises two companies: the Howaldtswerke-Deutsche Werft is most well-known for its submarines. HDW-Gaarden, on the other hand, concentrates on yachts and commercial ships. Both companies are based in Kiel and both rely on Werner & Zeisse. Using an integrated approach, the REMONDIS subsidiary is responsible for all cleaning activities for the shipyard and ships including waste management and winter service.

It is important to REMONDIS to offer the right solution for every recycling activity. This also applies to Werner & Zeisse.

## Together into the future

The partnership is based on trust – an absolute must for the Navy for the sensitive area of shipbuilding. "Our confidentiality standards are high. In the area of submarines, we only deploy people who have passed a security check," explains Frank Hildebrandt, plant manager of Werner & Zeisse. The partnership with HDW works perfectly. This is evidenced not least of all by the fact that the contracts have been extended until 2012 ahead of schedule. Werner & Zeisse was also awarded the contract for cleaning services for the construction of four new container ships that will be delivered by the end of 2010.

## Much of the work is the same but some of it is also completely different ...

The spectrum of services spans the entire range. Just as in any other production plant, production areas and plant surfaces have to be cleaned for HDW. In addition, various recyclable materials and potentially hazardous waste has to be collected, stored and disposed of. To achieve this goal, Werner & Zeisse supplements its own services with the strengths of the REMONDIS corporate network. In theory, it's just business as usual but there are some unique features.

What's different is that REMONDIS also looks after the finished products, namely ships. Even though the specialists don't go along on long journeys, they are still at home



on board. They take care of cleaning and recycling on the dock, at the edge of the quay or on trial journeys during the months-long construction process. Working on a ship means working in the closest of quarters. "The general conditions, particularly on submarines, are almost never easy. Often, every centimetre counts," says Frank Hildebrandt. Tanks and bilges where oil leaks or condensation can build up are not easy places to work.

#### Well-versed in many areas

In addition to HDW, the ship and shipyard experts also service the Flensburger Schiffbaugesellschaft and companies that have nothing to do with seafaring. Work is carried out a regular basis for two waste incineration plants, a lubricant manufacturer and many other customers.

Specialists from many areas work in the Werner & Zeisse team. As a result, the company can handle a variety of different tasks. Blast-cleaning and priming work or cleaning services with high-pressure water jets are just as important as restoring fire damage, removing mildew or graffiti. "We think of ourselves as problem solvers," says Frank Hildebrandt. "And this includes providing services that round out our entire range. For example, we also protect finished areas with fire-resistant materials and perform disinfecting and transport activities." Werner & Zeisse also takes on unusual tasks – and can, if necessary, tap into REMONDIS's extensive expertise.

## SF 99 – Yacht of unsurpassed luxury

Full service – no limits. This is the guiding principle of Werner & Zeisse. The company's extensive range of services includes complementary services such as polishing stainless steel. It was precisely here that the specialists did their part in the creation of the spectacular SF 99. This mega-yacht was put out to sea in June in Kiel. It is the peak of perfection. Designed by the star designer, Philippe Starck, the snow-white, 118-meter long prize jewel glitters with its five decks. This dream ship probably cost upwards of \$300 million. As is common for yachts in this class, the owner is unknown. This luxury ship was christened with the name "A" and has its home in Hamilton. Accident management

## Lye damage in the tank storage

**REMONDIS PROTERRA DELIVERS COMPLETE RESTORATION** 

An accident with severe consequences occurred in April at a chemical factory on the coast of the Baltic: when filling a tank with sodium hydroxide solution, the filling hose of the delivery truck burst. Within a short time, more than 2,000 litres of high-percentage sodium hydroxide solution leaked out and contaminated the entire tank storage.



Plant parts were decontaminated up to a height of 5 m. The aggressive lye caused extensive corrosion damage particularly on aluminium tank insulation, insulated pipes, pumps, covers and valves made of black steel and galvanized steel constructions. System components made of stainless steel and cabling for electrical lines also showed considerable damage. Because the warehouse serves as the heart of the

The most stringent requirements for health and occupational safety were set for all work.



chemical company, a production failure would threaten to have significant economic consequences. On behalf of the appraisal office of the insurance company responsible, REMONDIS ProTerra developed restoration measures that quickly got underway. In addition to cleaning, corrosion protection and disposal work, numerous damaged system components also needed to be replaced. Many of these modules were produced ahead of time to accelerate replacement.

Production continued during all restoration work which made coordination much more demanding. "During peak times, there were up to six teams on site. A lot of the work also had to be performed with full protection," said Dr Hans-Jürgen Täglich of the ProTerra subsidiary in Leipzig. By now, the damage has almost been completely remedied. Both the company concerned as well as the appraisal office verified that REMONDIS ProTerra had carried out professional, meticulous work. Because production didn't have to be stopped, the chemical company was able to avoid considerable financial losses. Multi-talented in biowaste

# Actively shaping European waste policy

ARTICLE BY MICHAEL MÜLLER, PARLIAMENTARY STATE SECRETARY IN THE GERMAN MINISTRY FOR THE ENVIRONMENT

## What biowaste has to do with preventing climate change and conserving resources

We find ourselves at the beginning of a century in which dealing efficiently and innovatively with energy, material and raw materials will become one of the key issues of a globalized economy. The challenges we face in protecting resources and preventing climate change are enormous and they are not only environmental in nature but also social and economic. The waste management sector, if it recognizes the writing on the wall, will be in the position to make a substantial contribution to overcoming these challenges. Germany's realignment of its waste management sector has put this to the test: the annual emissions of gases that affect climate change on the basis of CO, equivalents were able to be reduced by almost 45 million tonnes. This was achieved by increasing waste recycling and stopping the storage of biological municipal waste in landfills. And there is still more potential.

Modern waste management represents a major opportunity for protecting the environment and combating climate change. This becomes particularly evident using the example of biowaste. We have to gear our activities more towards raising the bar in environmental awareness, legal requirements and technical standards throughout Europe. Because even in Europe, the countries that have modern waste management strategies designed to protect resources and prevent climate change are still by far in the minority compared to countries that have a lot of catching up to do in waste management. There are a lot of good reasons to collect and recycle biowaste separately: the quantity of waste is reduced, the climate protected and resources conserved.

## Multi-talented in biowaste

There are a lot of good reasons to collect and recycle biowaste separately: the quantity of waste is reduced, the climate protected and resources conserved. Specifically: bio-



waste as a way to prevent rubbish According to data from the European environmental agency, EIONET (European Topic Centre on Resource and Waste Management), 254 million tonnes of household waste was produced in the EU member states (EU 25) in 2005. Based on numbers alone, biowaste makes up approximately 100 million tonnes of this total. This figure corresponds to the results of a survey on biowaste volumes conducted for the German Ministry for the Environment in the European member states (EU 25) and Norway. Based on this data, there was a total potential of approx. 113 million tonnes of biowaste and tree and grass cuttings that could be separately collected and recycled in these countries in 2005. Of this, only 24 million



The volume of household waste can be easily reduced by one-third by collecting biowaste separately and, at the same time, the cost of disposal can be eliminated in many cases. tonnes of biowaste is currently being used which represents 21 % of the total quantity. Biowaste frequently remains unused as a resource in many of the EU member countries and is sent together with residual waste to landfills. This also means that there would be less waste to dispose of if biowaste were consistently collected and recycled. This would also reduce the costs of disposing of household waste. According to a study of the INFA Institute<sup>[1]</sup>, the difference in costs for treating biowaste and residual waste is crucial in determining the potential savings. Logistics costs, on the other hand, play only a secondary role.

A high price level for disposing of household waste can be assumed if the environmental standard for household waste removal is set at a high level. Under these conditions, significant cost savings can be achieved by collecting and treating biowaste separately because composting is generally cheaper than incineration or mechanical-biological treatment of residual waste .

It must be assumed that in Europe, in the future, sending untreated household waste to landfills, even though it is cheaper, will become less and less common because it does more damage to the environment. This means separately collecting specific material flows and recycling these materials will be increasingly worthwhile, such as, for example, biowaste composting. In short: the volume of household waste can be easily reduced by one-third by collecting biowaste separately and, at the same time, the cost of disposal can be eliminated in many cases.

### Biowaste as a climate protector

The heads of state and government in the EU unanimously decided in the spring of 2007 to unilaterally reduce EU greenhouse gas emissions by 20 % by 2020 and, in the event of a global and comprehensive agreement, by 30 % over the international base year of 1990. Waste management is - after energy (including transport), industrial processes and agriculture - the fourth-largest cause of greenhouse gases in Europe. In 2004, a total of 109 million tonnes of CO<sub>2</sub> equivalent greenhouse gases were released<sup>[2]</sup> in the waste sector of the European Union without the newly joined countries in 2004 and 2005 (EU 15). The primary source of emissions is the landfills where the greenhouse gas methane is created by biological decomposition processes. Methane is roughly 21 times as damaging to the climate as the same amount of carbon dioxide. Untreated organic waste is practically the only relevant cause of the production of methane gases in landfills that affect the climate. Lowering the quantities of these waste components stored in landfills would result in lower emissions. For good reason, the EU landfill directive thus stipulates a phased plan to reduce organic waste in Europe's landfills: the quantity sent to landfills is required to be reduced by 25 % by the year 2006, by 50 % by the year 2009 and 65 % by the year 2016. Unfortunately, the directive does not, however, contain any binding specifications such as how to reduce the organic percentages. Binding specifications to extend separate collection of biowaste would act as a supporting measure to implement the landfill directive so that the goals of the landfill directive are also reached. The following would also benefit the prevention of climate change: the reduction of biologically degradable waste in landfills by 65 % in Europe (EU 15) as stipulated by the EU landfill directive for the year 2016 would eliminate 74 million tonnes of CO, equivalents per year<sup>[3]</sup>.

This number alone represents roughly one-fifth of the planned greenhouse gas reduction of the EU of 30 % for the year 2020. If a complete EU-wide landfill ban were introduced and enforced for biologically degradable waste, around 100 million tonnes of  $CO_2$  equivalents could be potentially eliminated by the year 2020, a figure that represents 40 percent of the European target for preventing climate change. Collecting and recycling biowaste separately is thus one way to practice climate change prevention.

### Biowaste as a resource protector

The humus content of much of the land in Europe is either too little or alarmingly low. Based on estimates, 45 % of all soil in Europe already does not have enough humus. The EU Commission calculates that this deterioration in Europe's soil costs a total of EUR 38 billion annually<sup>[4]</sup>. The demand for humus fertilizer is expected to increase as the climate changes and weather conditions become more extreme and as plant production without livestock intensifies. A balanced humus content is, however, the basic prerequisite for soil fertility. Particularly in specialized purely agricultural farms, it must be ensured that adequate organic substances are returned to the soil. It is precisely the use of compost and fermentation residue that offers a good opportunity to stabilize or improve the humus content of the soil and encourage biological activity. Compost is particularly suited - better than, for example, liquid manure - to make up for humus deficiencies. This also has its economic benefits. Systematic humus management with compost brings agricultural farms considerable financial benefits as soil fertility improves. By separately collecting biowaste and recycling it as compost for agriculture, mineral fertilizers can also be replaced by 8 % to 10 %. This conserves not only limited resources of plant nutrients (e.g. for phosphorus) but also upland moor peat.

### The goal: an EU biowaste directive

We have successfully readied a separate biowaste directive in the EU: a separate article regulating biowaste was included in the amended text of the Council directive on waste which was approved by the European Parliament on 17.6.2008 and will most likely be passed by the Council this autumn. This article calls on the Commission to conduct an environmental assessment of treating biowaste with a view to creating the draft of the directive and to define specifications for biowaste treatment and for quality standards for

## "There is hardly any other area in climate and environmental protection were so much can be accomplished with so little effort as in separately recycling collected biowaste."

Article by Michael Müller, Parliamentary State Secretary in the German Ministry for the Environment

compost and fermentation residue. The member states are to provide their support for the separate collection and environmentally-friendly recycling of biowaste. This is an important first step. It lays the foundation for creating European regulations on biowaste treatment in the Council directive on waste.



The activities of the German Ministry for the Environment were responsible for incorporation of this additional issue. The Commission's original draft did not contain any proposals for regulating biowaste. As early as May 2006, the German Ministry for the Environment, working together with Spain, Portugal and Austria, initiated a political debate on the necessity of an EU biowaste directive. The activities of the German Ministry for the Environment in support of a separate regulation for biowaste met with strong political support in other member states: the original alliance supporting an EU-biowaste directive started out as a 4-country initiative but has now grown to 11 member states. Belgium, Estonia, Italy, Slovakia, the Czech Republic, Hungary, and Cyprus have all joined the cause. The European Parliament has also recognized the opportunity that biowaste presents and supports the EU-wide regulation for separately recycling collected biowaste. These are solid prospects because there is hardly any other area in climate and environmental protection were so much can be accomplished with so little effort.

#### Conclusion

In environmental terms, it makes sense to reduce the organic content in waste by separately collecting biowaste and then treating the resulting residual waste. This reduces the production of methane gas; compost or fermentation residue produced from biowaste can be used to improve the soil; usable energy is also produced when suitable biowaste is fermented in controlled processes. This type of strategy conserves resources, makes a considerable contribution to preventing climate change and lowers the costs of treating waste in a modern waste management strategy. Which is why the German Ministry for the Environment has persistently pursued the goal of an EU biowaste directive.

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## From contaminated site to biotope

**REVITALIZATION AND DECONTAMINATION OF AN UNUSED INDUSTRIAL SITE** 

REMONDIS ProTerra cleans up the Büderich brickworks in the western part of the city of Wesel. The former brickworks are a tough case. A lot of sensitive waste is stored here, and the ramshackle industrial halls are not only in danger of caving in but also contain asbestos. The contaminated site has been turned into a green area with potential use for regional recreational activities in just a few short months through professional management and nearby disposal.

## Joint venture ensures effective cleanup

The Altlastensanierungs- und Altlastenaufbereitungsverband NRW (AAV – Association for Cleanup and Recycling of Hazardous Waste) cleans up sites contaminated with hazardous waste if those responsible are not able to. Behind AAV is a voluntary cooperation model between the public and private sector, including REMONDIS. The association currently spends approximately EUR 10 million a year on cleanup activities. Potential proceeds from sales of cleaned up sites are invested in new projects

Teamwork in the REMONDIS network: together with REMEX, ProTerra disposed of around 3,000 tonnes of contaminated soil within one week. REMEX is specialized in transporting and processing large amounts of mineral materials. Huge halls, tunnel ovens, a prominent smokestack. The brickworks were practically part of the urban landscape in Büderich, a district of the city of Wesel. For decades, bricks were fired in kilns and sand and gravel excavated from the ground. When the brickworks went bankrupt, the site fell to disuse. The 134,000 m<sup>2</sup> large facility was considered contaminated with hazardous waste and was not available for use. Things started to turn around after ownership was transferred to the county and city of Wesel. This site is now being cleaned up with support from the Altlastensanierungs- und Altlastenaufbereitungsverband NRW (AAV - Association for Cleanup and Recycling of Hazardous Waste). REMONDIS ProTerra is acting as the general contractor in this effort. A key component of this project is cleaning up contaminated soil. Starting in 1985, the brickworks accepted large quantities of foundry sand and soil containing hazardous waste. Part of this material was used in production but large volumes were stored illegally, amassed or buried. The pits created when excavating sand and gravel were filled with various kinds of material including bulky waste and waste electrical equipment. All of this is now being reversed. The goal is also to reconstruct the building and remove paved over surfaces. Then, plants will be added and the site renaturalized It will form a biotope together with the adjacent Menzeln Lake.

ProTerra prevailed over 27 competitors in the tendering process. The primary factor for success: all waste and soil can be disposed of in REMONDIS facilities in Northrhine Westphalia. On this subject, Dr Engelbert Müller, project manager of the AAV, says: "We are pleased that the regional waste disposal infrastructure is capable of supplying solutions even for tricky disposal problems."



Joint initiative

## Partnership for livable environments

**REMONDIS SUPPORTS ENVIRONMENTAL PROGRAMS ON THE FIFTH CONTINENT** 

Australia is known around the world for its attractive cities, impressive landscapes and magnificent beaches. To make sure it stays this way, REMONDIS supports the renowned national environmental organization Keep Australia Beautiful (KAB) in its wide range of activities.

The partnership began in 2007 when REMONDIS announced its "Resource Recovery Award" contest in the northeastern state of Queensland. Under the aegis of the "Green & Healthy Schools" program, more than 550 schools there around the country are taking part in projects to promote environmental protection and health and safety. The prize awarded by REMONDIS honours outstanding achievements in school community work on issues such as waste prevention and resource management. The award is presented to 12 regional winners and one national prizewinner.

This year, the partnership between KAB and REMONDIS was extended to the state of New South Wales (NSW). Here as well, the goal is creating a livable environment with a focus on sustainably clean rural communities and big cities. Peter McLean, managing director of Keep Australia Beautiful NSW: "We are very proud of our partnership with REMONDIS. It is very positive that the company has assumed a leadership role and is involved in paying tribute to activities. But this just wasn't enough. Initiated by Luke

## ", We were happy that REMONDIS agreed to support us!"

Carole Miller, CEO Keep Australia Beautiful Queensland

### Background

"Keep Australia Beautiful" (KAB) was founded in 1968 in Queensland, the second largest state in Australia, and is today one of the most well-regarded independent organizations on the continent. The goal of KAB is to raise environmental awareness among the general public and sustainably improve the quality of the environment through personal voluntary initiatives and joint campaigns. REMONDIS's activities in its partnership with KAB focus on five programs in the states of Queensland and New South Wales.



Agati, managing director of REMONDIS in Australia, the company also sponsors the "Clean Beach Challenge" environmental contest. This prize honours activities aimed at keeping Australian coastal communities clean and beautiful. There is widespread interest in the media and the general public in answering the question "Which region has the cleanest beach?". Thus, the interest in REMONDIS's activities is also pronounced.



The nationwide volunteer network set up by the Keep Australia Beautiful organization is committed to a clean and green environment.

#### News in brief



International solution: The dual EKO-PUNKT system is at work in Germany, Poland, Hungary, Great Britain, the Czech Republic, and Slovakia. For six years, EKO-PUNKT, the dual system of the REMONDIS Group, has been at work in Poland. Organizacja Odzysku S.A., the Polish EKO-PUNKT organization, is considered the market leader in recycling and environmental services. More than 850 manufacturers and importers take advantage of the range of services they offer to satisfy their obligations to take back products and materials and recycle them In the past year alone, around 120,000 tonnes of recyclable materials including glass, plastic, aluminium, paper and cardboard was returned to the material life cycle. In addition to partners from the private sector, municipalities also benefit because EKO-PUNKT continues to drive public collection of recyclable materials in the network with other companies in the REMONDIS Group. More than 6 million inhabitants are already benefiting from the logistics and recycling services of REMONDIS.

#### News in brief \_

## Public contract-award procedures have to stay mandatory

**EKO-PUNKT** makes rapid progress in Poland

Possible amendment to the law eliminates fair trade.

Even though everyone is equal in theory, some are more equal than others. What is common practice in awarding public contracts could now even be sanctioned by law in Poland. A passage that would allow municipalities to award contracts to their 100-percent subsidiaries without a tendering process is currently being discussed as part of a possible amendment to the law on public contracts. This discriminatory regulation appeared in the draft of the amendment until the beginning of June. Now, people are coming around: the passage has been removed from the second version. With good reason: because in the end, the best company does not necessarily prevail when contracts are awarded without tenders – barring any possible claims of favouritism. Whether or not this distortion of competition has been permanently removed from the table remains to be seen. The matter as such has at least become a political issue. One of the most important newspapers in Poland, the Rzeczpospolita, has taken up the issue. It cites, among other things, another legal opinion which makes it clearly evident that the amendment is not necessary. According to the legal opinion, current practice of the law does not conflict either with EU provisions or interpretations of the European Court of Justice. Citizens will pay the price if a new regulation is introduced that violates fair trade practices. The motto will then be higher costs for less performance.

#### News in brief

## Memories of yesterday

Shortly after reunification, REMEX was commissioned by the Ministry of Defence to take down parts of the Berlin Wall, process them and make new construction materials out of them. This historic task, which has long been a thing of the past, is now once again present every single day. Brought to life again as art, pieces of the wall today decorate the entrance to the REMEX site at the Dusseldorf harbour. Managing director Michael Stoll set aside several distinctive pieces back then. They are now the centrepieces of the work of art created by artist Reimund Franke. The sculpture entitled "Aufbruch", or "Awakening", symbolizes the quest for freedom and, at the same time, creates a bridge between the past and the future. But it doesn't stop there. It also reflects the accomplishments of REMEX. One fragment, for example, was processed using hydraulic shears. Small pieces that fell off during processing have become part of the work and are a symbol of the demolition at the time.



# Poland: high quotas made possible through easy return

### NATIONWIDE RETURN OF CONTAMINATED PACKAGING IN POLAND

The obligations on the part of both manufacturers and retailers are increasing in Poland. Anyone, for example, who introduces products with hazardous substances into circulation must take back packaging after use. REMONDIS set up a nationwide disposal system for pesticide containers. The closely-knit network of collection centres has made it possible today to separately collect half of this packaging.

The Polish Crop Protection Association, PSOR, which is one of the leading manufacturers and importers of pesticides, is the initiator of the collection model. 26 members of the association use the system conceived by REMONDIS. The environmental advantages of this flagship solution in Eastern Europe are enormous. After all, the pesticides sold on the Polish market contain up to 80 % toxic or very toxic substances. The used packaging is also heavily contaminated.

### The short path to success

Following a pilot project, separate collection of pesticide packaging was introduced nationwide in 2005. The objective was, in particular, to set up a large number of collection centres. The thinking was that the shorter the distance to the closest collection centre, the greater the farmer's willingness to return packaging there. To date, a total of 2,600 stations have been set up – most of them are in large agricultural enterprises but some are also located at various commercial sites. Informational events held by the Polish Crop Protection Association publicized the campaign and ensured at the same time that the collection centres possessed the necessary expertise.

## Transferable to other industries

The effectiveness of the model is evident: while three years ago, only just under 25 percent of returnable packaging was separately collected, in 2007, this figure was almost 50 percent. The best collection results were achieved in the northwest region of Poland where there is a particularly high number of large agricultural enterprises. The collection system with its solid results is a convincing reference model. REMONDIS will also offer similar services in Poland to other industries in the future.

System Odbioru i Unieszkodliwiania Opakowań po Środkach Ochrony Roślin

There are a number of collection centres in the agricultural regions of Poland – to cover as large an area as possible.



#### REMONDIS AKTUELL | 39



People \_



## A life for the Lippe Plant

WERNER PÄTZOLD, WHO WAS FOR MANY YEARS THE PLANT MANAGER, IS NOW RETIRING AFTER 50 YEARS

Career continuity is just as hard to imagine for today's generation of 30 and 40 somethings as a linear career at one and the same workplace. Werner Pätzold managed to achieve both in his satisfying career. After 50 years of working actively both in and for the Lippe Plant in Lünen, this plant manager is now beginning his well-earned retirement.

A half a century is a long time. "With a smile and a heavy heart", the 64-year-old looks back on an unprecedented career that began with an apprenticeship as a chemical

", Werner Pätzold has gone to great lengths for the development of RETHMANN here on site and help shaped the era of reorganization." Norbert Rethmann, Chairman of the Supervisory Board engineer in the Lippe Plant on 1 April 1958. Back then, Werner Pätzold never would have dreamed that he would, over a 50-year period, make such a significant contribution to shaping the technical development, reorganization and continued existence of this key industrial site. "I can look back at an enjoyable career," he says today and, with all modesty, highlights his personal contribution during the phase of upheaval. He is "proud that restructuring was successful".



Werner Pätzold receives Norbert Rethmann, Chairman of the Supervisory Board, with his family; Mayor Hans Wilhelm Stodollick, city of Lünen and other honoured guests.

Shutting down aluminium production, restructuring the plant facilities for various recycling processes, the subsequent takeover of the site by the Rethmann family in 1993 and the reorganization to become Europe's largest centre for industrial environmental services represent the greatest breaks in the career of the former plant manager. With great dedication and enthusiasm, Werner Pätzold acquired the necessary technical expertise over the decades of his employment. In the 1970s, he played a key role in expanding the six decomposition facilities. He developed the scoria recycling technique and the first alpha plaster system and oversaw both systems himself. As early as 1989, he was appointed plant manager of the then VAW, making it only logical for him to take over the position of plant manager for RETHMANN starting in 1994. Chairman of the Supervisory Board, Norbert Rethmann, talked about Werner Pätzold's contribution during the reorganization at his going away celebration on 27 June 2008: "Werner Pätzold has gone to great lengths for the development of RETHMANN at this site and help shaped the era of reorganization."

## "I can look back at a very enjoyable career."

Werner Pätzold, former plant manager

Werner Pätzold has achieved something that only the very few dream of. He not only adapted to all of the changes in his working environment with the greatest amount of flexibility, he actively helped to shape the processes of change. His reward was a satisfying career at one and the same site, "his" Lippe Plant. This active guest of honour, however, will hardly find time to be bored in his well-earned retirement. He is looking forward to having more time for his family, sports and further education. Learning English and honing his computer skills are at the top of his agenda. And, the knowledge that he has acquired over 50 years on the job will not be lost to the working world. He will pass on his knowledge and his experience as a consultant, in the future as well. A half a century of on-thejob enjoyment: Werner Pätzold celebrated a special occasion at the Lippe Plant.

#### News in brief .

## **Minister visits WAL operations**

The Minister for Rural Development, Environment and Consumer Protection of the state of Brandenburg, Dr Dietmar Woidke, at an official visit to the Senftenberg Wasserverband Lausitz Betriebsführungs GmbH (WAL operations).

The agenda of the meeting with the executive management of the water board included current issues about the structure of the Brandenburg water resources management sector, its efficiency and possible alternatives. The WAL



operations, a 100-percent REMONDIS subsidiary and, since January 2006, responsible for operations management of the drinking water supply and wastewater treatment for the Wasserverband Lausitz, discussed possibilities for optimizing costs and thus stabilizing charges, using itself as an example. The WAL operations were able to codify the latter for 10 years with a resolution passed at the association's general meeting on 26 June 2008 – a novelty especially in the outer regions of Brandenburg. At the podium discussion that followed on "Lausitz as an energy region" on the IBA Großräschen terraces, the WAL managing director, Marten Eger, discussed the current investments in an innovative combined heat and power plant at the Brieske treatment plant with the minister. The new technology will allow enough energy to be generated through CO fermentation to power operation of the treatment plant independently, i.e. without energy from a third-party. As a result, approx. 1,500 tonnes of lignite per year can be replaced by renewable energy sources.

Minister Woidke and the managing directors of the WAL operations, Marten Eger and Karin Rusch

#### News in brief \_

## **REMONDIS Sistem Yapi at the 2008 REW Istanbul**

From the 19th to the 22nd of June, the largest Turkish trade show for economic services, the "2008 REW Istanbul", was held in the Tuyap tradeshow and conference centre in Istanbul for the fourth time.

REMONDIS was represented with its own booth and had a steady stream of visitors on all four days of the trade show. The high flying industry professionals in attendance learned all about introducing a true material life cycle, about technologies and services for water treatment and collecting and recycling household and commercial waste. That goal is to restructure the Turkish waste management

From right to left: Görkem Dinçer (REMONDIS Sistem Yapi), Kaan Alpaslan (REMONDIS Sistem Yapi), Murat Bodur (REMONDIS Sistem Yapi), Torsten Weber (REMONDIS International), Devrim Alkiş (REMONDIS Sistem Yapi), Marek Osiecki (REMONDIS Poland), Şölen Arkun (REMONDIS Sistem Yapi), Jörg Albrecht (REMONDIS Industry) Öğünç Akyol (REMONDIS Sistem Yapi)



sector over the medium-term to become a water resources management and economic services sector that meets EU standards. The German Ministry for the Environment, Nature Protection and Reactor Safety, the Turkish Ministry for the Environment and Forestry, and the German-Turkish Chamber of Commerce organized the task force "German-Turkish Environmental Protection Technology" as part of the event. The task force explores possibilities for future cooperation between the German water resources management and economic services sector and the Turkish municipalities and companies. Torsten Weber, managing director of REMONDIS International GmbH, held a talk about German-Turkish cooperation using REMONDIS Sistem Yapi's experiences as an example. Hasan Köseleci, plant manager of REMONDIS Sistem Yapi, gave a presentation about the unique features of operating wastewater treatment facilities in Turkey. In addition to the numerous customers, interested parties and journalists, REMONDIS Sistem Yapi was also visited by the state secretary of the Turkish Ministry for the Environment and Forestry, Mr Sedat Kadıoğlu, who was impressed by REMONDIS's activities in Turkey.

## > Impressions



Egbert Tölle, board member of the REMONDIS talking to customers at the IFAT

REMONDIS visit on the IFAT site: From left to right: Herbert Wilms, executive management; Norbert Rethmann, Chairman of the Supervisory Board; Jens Kumbrink, executive management; Michael Feldpausch, head of sales; Thomas Conzendorf, board member; Heinrich Zöllzer, Supervisory Board member



REMONDIS

• Norbert Rethmann, Chairman of the Supervisory Board of Rethmann AG & Co. KG, and Torsten Weber, managing director of REMONDIS International, are pleased about the considerable interest at the IFAT.



Norbert Rethmann, Chairman of the Supervisory Board of RETHMANN AG & Co. KG; Egbert Tölle, board member of REMONDIS; Fritz Buchholz, managing director of Assets & Services, and Andrey Kosak, director of REMONDIS Saporoshje, pictured with REMONDIS employees in Saporoshje

Norbert Rethmann, Chairman of the Supervisory Board of RETHMANN AG & Co. KG, and Egbert Tölle, board member REMONDIS Board of Directors, make a donation to the kindergarten for visually impaired children, the only one of its kind in Saporoshje.



NRW Interior Minister Dr Ingo Wolf visiting the REMONDIS booth at the regional party conference. Left: Hans Vornholt, managing director of REMONDIS, right: Claudia Kellermann, REMONDIS corporate communication

The mayor of the county of Coesfeld

REMONDIS AKTUELL | 43

## **REMONDIS**<sup>®</sup>

## "Clean water comes from sources deep within the earth. Or from REMONDIS."

## > Water resources management

Water is the stuff of life. Which is why REMONDIS has been working for sustainable water management now for more than 25 years – a mission that will become increasingly important due to the limited supply of natural resources and the rising global demand. By 2025, consumption will increase by 40 percent, and compromise is not an option when it comes to quality. Whether water supply or wastewater treatment, system design or facility operation: we play an important role in securing a reliable water supply with services in the various areas of water resources management. Not only in Germany but in many other countries around the world – because global challenges require global solutions. If you want to learn more about our wide range of activities in resource conservation and the prevention of climate change, call us or send us an e-mail. We would be happy to give you the information you need!

 
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Untreated water development,

freshwater treatment, drinking wa-

ter supply, facility design, network

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