

## THE GREAT DIVERSITY OF RECYCLING – THE LIPPE PLANT: A GLOBAL ROLE MODEL



### Latest news

Federal Environmental Minister, Peter Altmaier, "greatly impressed" by REMONDIS

### Water resources management

First solar sewage sludge drying facility in Turkey goes into operation

### Environmental services

Maritim hotels opt for REMONDIS' sustainability certificate

### People

Award-winning traineeship – accreditation for REMONDIS' trainee programme

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## THE REMONDIS LIPPE PLANT

Covering a total of 230 hectares, the REMONDIS Lippe Plant has become the largest industrial recycling centre in Europe. Since taking over the area in 1993, REMONDIS has invested more than 270 million euros in the site and made it what it is today: a global example of the high standards that can be reached when recovering raw materials and energy from waste. **Page 4**



## REMONDIS AQUA IN TURKEY

REMONDIS has been involved in various different projects in Turkey for many years now. The country's first solar sewage sludge drying facility has just begun operations in the City of Fethiye – technology that is particularly promising for the future as it requires so little energy. **Page 18**



## CARING FOR THE ENVIRONMENT

Right from the very start, Maritim has focused on using natural resources responsibly. It was not surprising, therefore, that it selected REMONDIS to be its waste management partner for all of its hotels in Germany. An excellent decision as events have shown just recently. **Page 26**

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## Flag

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 Layout: www.atelier-14.de Print: Lonnemann, Selm

## EDITORIAL

### Dear Readers!

For a company to be an overall success, it must also be a success in the individual regions it works in. Being located close to the customers plays a major role in ensuring the whole group enjoys growth. Service providers in particular are, therefore, well advised to take a look at the map, identify where there are gaps and then target these areas for growth. REMONDIS is no exception. The acquisition of Thyssen Krupp Xervon with its new international locations on, among others, the Arab peninsular, and the leap into the premier league of waste management companies in Australia through the takeover of Thiess Waste Management this year are an impressive display of how REMONDIS is enjoying long-term growth. Despite this international success, however, we never forget the needs of the customers on our own doorstep. With all this mind, REMONDIS felt that there was room for further growth in the Trier-Luxembourg border region. REMONDIS has now closed this gap by acquiring HORSCH Entsorgung GmbH in Trier and HORSCH Entsorgung S.a.r.l. in Luxembourg. Indeed, this is the first time ever that the REMONDIS Group has had a business location in Luxembourg.

The largest of all REMONDIS' locations and the site that represents best what the company's business is all about is its Lippe Plant in Lünen. Nowhere else in Europe can so many different recycling facilities for industrial material streams be found on one location. Every year, around 1.6 million tonnes of different types of waste are delivered to this 230-hectare site, a former aluminium plant, where they are recycled in the various facilities. 1.2 million tonnes then leave the site as secondary raw materials or as innovative products which, at first sight, no-one would guess to be recycled materials. The rest is transformed into carbon-neutral energy and process heat. The plant not only covers



Thomas Breitkopf,  
REMONDIS Board Member

its own energy requirements but also feeds any excess electricity into the national grid. From gypsum from flue-gas desulphurisation plants for the construction sector and the medical branch, to plastics, which are returned to production cycles as regranulates, to waste electrical equipment which is recycled on an industrial scale and from which valuable materials such as copper, aluminium, non-ferrous metals and high quality precious metals are recovered – each and every day the Lippe Plant demonstrates what sustainability is all about. The great interest in this site is also reflected by the many groups of visitors, in particular from Asia, who wish to discover how the recycling sector in their own countries may look in the future. The Federal Minister of the Environment, Peter Altmaier, also decided recently that he wanted to see state-of-the-art recycling in action. A number of subjects were discussed during his visit to the Lippe Plant including the new recycling bin. At least all the market players agree on one thing here: recycling rates cannot improve nor can CO<sub>2</sub> emissions be reduced unless collection rates improve. REMONDIS' Lippe Plant also depends on the greatest volumes of recyclable waste being collected across the country. Yet another reason, therefore, why we have decided to use this edition to give a more detailed presentation of the site's activities.

I hope you enjoy reading this edition of the REMONDIS aktuell!

Yours

A handwritten signature in black ink, appearing to read 'T. Breitkopf', written in a cursive style.

Thomas Breitkopf

The REMONDIS Lippe Plant

# Producing raw materials on an industrial scale

THE LIPPE PLANT IS A GLOBAL ROLE MODEL

Covering a total of 230 hectares, the REMONDIS Lippe Plant has become the largest industrial recycling centre in Europe. Since taking over the area in 1993, REMONDIS has invested more than 270 million euros in the site and made it what it is today: a global example of the high standards that can be reached when recovering raw materials and energy from waste.

The REMONDIS Lippe Plant >

Each year, 1,000,000 tonnes of high quality raw materials are recovered from 1,600,000 tonnes of waste at the REMONDIS Lippe Plant, some of which are used straight away to manufacture new products

**REMONDIS®**

Recovering raw materials, developing marketable products, researching into and creating alternative energy concepts and sources of fuel – thanks to these activities, the REMONDIS Group's experts working at the Lippe Plant in Lünen make a major contribution towards protecting our planet's natural resources and preventing climate change.

#### **Eco-industrial parks on the increase**

More and more people can be heard speaking Chinese, Indian, Taiwanese and Korean at the plant. Delegations from Asia can be found visiting the Lippe Plant at regular intervals to see this efficient recycling centre for themselves and there is a great deal of interest among the

participants – with their economies continuing to grow rapidly, they, too, are having to face the problem of their natural resources gradually becoming depleted. The Asian countries are, therefore, well aware of the fact that they, too, must tackle the important challenge of handling their

valuable materials efficiently. As a result, so-called “eco-industrial parks” (EIP) are being set up across the region that have been oriented towards the high standards found at REMONDIS' industrial recycling centre in Lünen.



The REMONDIS Lippe Plant has a well-developed on-site infrastructure and excellent connections to all different forms of transport



## Raw materials come from the ground – or from the REMONDIS Lippe Plant

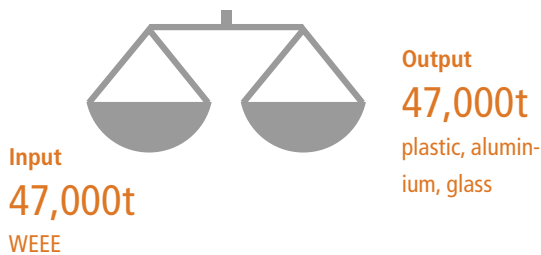
REMONDIS works continuously towards ensuring that more and more residual waste and discarded products can be recycled – but not only so that such work is simply technologically possible but also so that it makes good economic sense. As a result, large commercial processing facilities and dismantling centres have been set up in Lünen, in which top quality raw materials are recovered from the waste once any hazardous fractions have been carefully removed.

All types of waste generated by our modern industrial society – from waste electronic equipment and plastics, to paints and solvents, to residual organic materials – are accepted by the plant and sent for recycling. Energy production for the site is regulated by a fluidised-bed power plant and a biomass-fired power plant (BMK) and is completely self-sufficient. This fact, too, has led to the plant becoming an international role model, as demonstrated by the large number of visitors from the Far East.

### Europe's largest WEEE dismantling centre

One of the special features of the Lippe Plant is the dismantling centre for waste electrical and electronic equipment (WEEE), which is often viewed with great interest by the visitors. The largest of its kind in Europe, this plant accepts all categories of equipment – from washing machines to fridges, from TVs to computers, to vacuum cleaners – and

### THE WEEE DISMANTLING CENTRE



then removes any hazardous substances in an environmentally friendly way before dismantling the equipment using mechanical processes.

The final products at the end of this multi-stage process, with its various kinds of shredding and separation technology, are pure raw materials such as plastic, aluminium and panel glass which can be fed back freely into production cycles. The centre currently has an annual input of 47,000 tonnes of old electronic devices and an output of exactly 47,000 tonnes of processed secondary raw materials: a perfect result.

**Waste has an enormous potential. The WEEE dismantling centre proves that nothing needs to be left out. All raw materials are either fed back into production cycles or used to generate energy**

The final products at the end of the seven dismantling and shredding processes at the dismantling centre in Lünen are top quality raw materials separated strictly according to type





An important raw material for producing CASUL® is ALUMIN® which is also made at the Lippe Plant

The REMONDIS Lippe Plant >

## High quality production processes

Recovering raw materials is one task; using these to make high quality base materials, special products and industrial goods is another. REMONDIS operates industrial production facilities in Lünen where it manufactures a whole range of different products and is continuously extending this part of its business.

When developing new ideas, priority is always given to the marketability of the potential products, with the company's own secondary raw materials primarily being used to make them. Moreover, the success of these products in the market has proven that the developers were right: ALUMIN®, CASUL®, PLANOLEN®, PLANOMID®, RADDIBIN®, HUMERRA® and other brand-name products are in high demand from a wide variety of sectors all around the world – from the chemical industry, to food production, to medical technology.

### ALUMIN® makes things clear

The processes used to treat the surfaces of aluminium parts and to produce catalytic converters result in the accumulation of solutions and sludge which contain aluminium. These substances are cleaned, concentrated and filtered by

REMONDIS using a series of complex procedures. By adding a certain amount of primary raw materials, it is possible to produce varying qualities of pure ALUMIN®.

ALUMIN® output:

 **40,000** tonnes p.a.



### REMONDIS – The Employer

With a workforce of over 1,400 employees, the industrial recycling centre in Lünen has become an important employer for the region and has made a significant contribution towards overcoming the structural economic changes taking place in the Ruhr area. Unlike coal mining and steel, the recycling sector is able to offer jobs with long-term future prospects.

### CASUL® – a white pigment for paint, plaster and paper

CASUL® is an extremely white synthetic mineral (ettringit) with a high covering capacity and gloss-giving qualities. CASUL® is produced using a process that was developed and patented by REMONDIS. By using CASUL®, the various sectors – from the paper and paint industries all the way through to construction chemicals and fire protection businesses – are able to significantly reduce their use of organic additives. The most important raw material used to produce CASUL® is sodium aluminate, ALUMIN®.



CASUL® is used by the paper and paint industries as well as by the construction chemicals sector to produce, for example, dispersion wall paints, eco-friendly paints, liquid plaster and high quality glossy paper

CASUL® output:

 15,000 tonnes p.a.

### RADDIBIN® – high-tech plaster for strong floors and perfect impressions

Large volumes of gypsum are produced as a result of the desulphurisation of flue gases at power plants fired by fossil fuels. This so-called FGD gypsum is processed at the REMONDIS Lippe Plant and turned into additives and binding agents which are sold under the RADDIBIN® brand name and can be used for a wide variety of applications.



The RADDIBIN® FGD gypsum can be used in the construction industry, dentistry and the food industry as well as in agricultural technology

RADDIBIN® output:

 300,000 tonnes p.a.

### HUMERRA® – compost products for soils, earths and substrates

Biowaste, such as plant and tree cuttings from gardens and parks and waste from biowaste bins, is transformed into high quality compost at the Lippe Plant using the BRIKOLLARE composting method, which was developed and patented by REMONDIS. The various soil improvers, such as mulch, active compost and fine compost, are sold under the HUMERRA® brand name.



The HUMERRA® soil improvers are suitable for garden, landscaping and horticulture firms as well as for agricultural businesses

HUMERRA® output:

 60,000 m³/a compost

### PLANOLEN® and PLANOMID® – plastics from waste rather than crude oil

RE PLANO produces and markets various qualities of plastic granulates and compounds under its PLANOLEN® and PLANOMID® brand names. PLANOLEN® granulates conform to all important ISO and DIN industrial standards and provide a reliable quality. Several of the granulates sold under this brand have received the mark of quality from the RAL-GRS.



They are used, for example, as a raw material for producing building supplies, casing for electrical appliances, wheelie bins, pallets and asphalt additives

RE PLANO® output:

 16,000 tonnes p.a.



wastewater  
treatment

production of  
white pigments

chemicals processing

fluidised-bed  
power plant

works landfill





composting plant

timber processing

production of  
binding agents

production  
of biodiesel



biomass-fired  
power plant

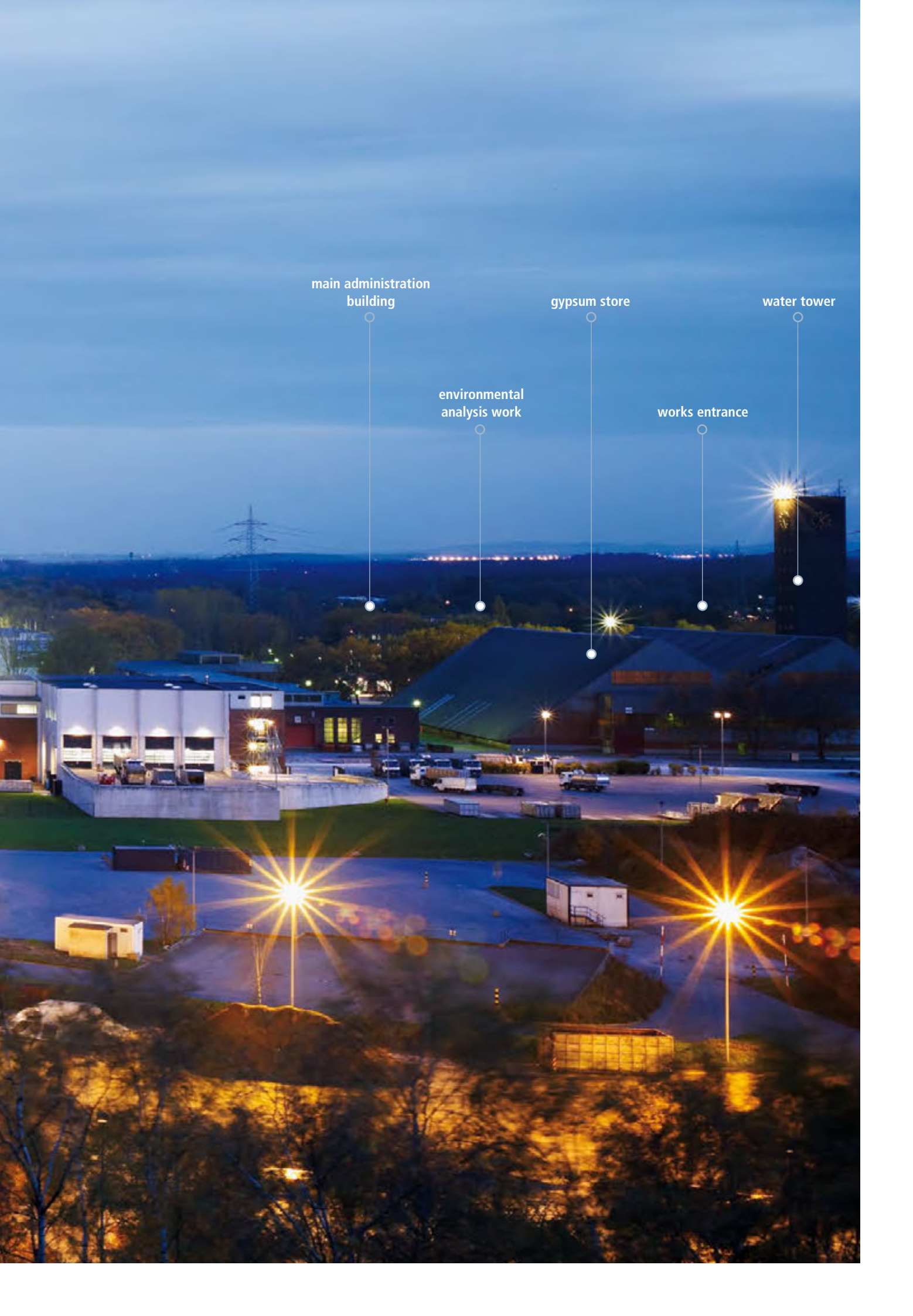
plastics recycling

metal slag  
processing

earthworks

SecAnim

WEEE dismantling  
centre



main administration  
building

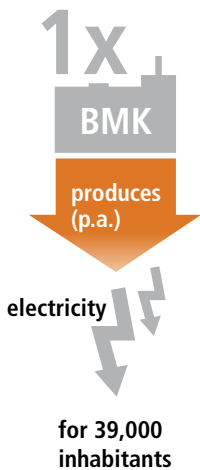
gypsum store

water tower

environmental  
analysis work

works entrance

## Generating energy from biomass



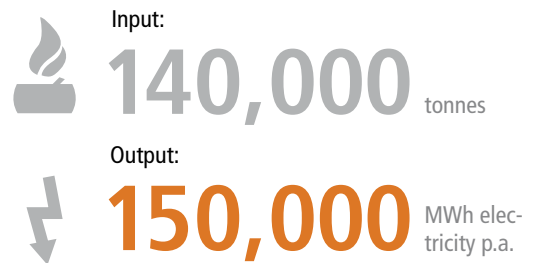
The amount of electricity produced by the BMK each year is sufficient to cover the electrical requirements of a small town with approx. 39,000 inhabitants

Developing and using alternative forms of energy which are not dependent on finite fossil fuels is something that is becoming more and more important. REMONDIS and its sister company, SARIA Bio-Industries, have been developing and implementing efficient, forward-looking solutions – concentrating to a great extent on different sources of biomass. Some of these large power plants can be found in Lünen. They supply enough energy to cover the requirements of all the facilities operating at the Lippe Plant.



Another of the company's flagship projects is its biomass-fired power plant (BMK) – here REMONDIS has invested in an innovative market with a secure future. The plant is primarily run on different categories of waste timber. In addition to this, screening residue from composting procedures and other types of biomass, such as plant/tree cuttings, are used. The energy generated by the BMK in Lünen is carbon-neutral which means that CO<sub>2</sub> emissions are cut by around 100,000 tonnes a year.

### Energy from waste timber and plant cuttings

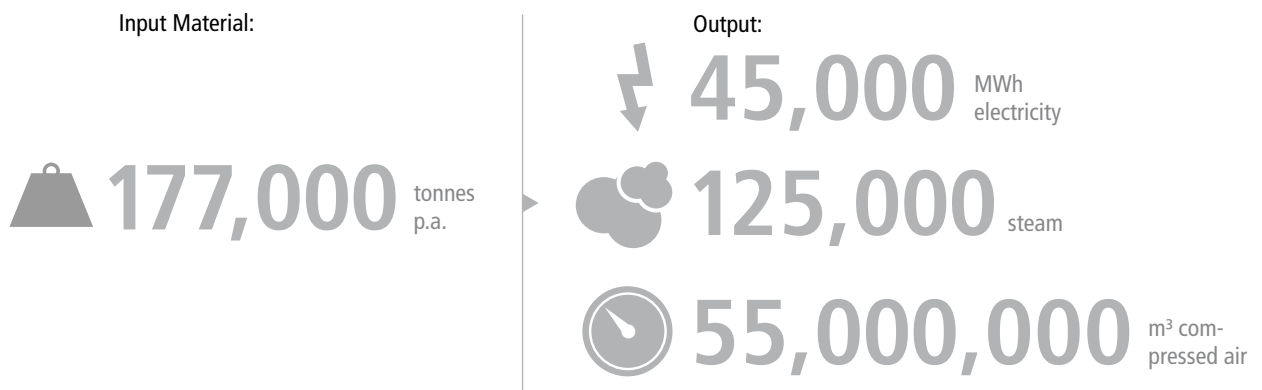


### Fluidised-bed power plant

REMONDIS operates its own power plant at the Lippe Plant in order to be able to supply the production facilities located there with electricity, process steam and compressed air. Practically all of the fuels used to power the fluidised-bed power plant are either secondary or substitute fuels. Such fuels include, among others, sterilised liquid meat paste

from the neighbouring rendering plant which processes abattoir waste and fallen animals – a process which is unique across the whole of Europe. Furthermore, a whole number of different wastes listed in the European Waste Catalogue can be thermally treated here.

### Energy from alternative sources



“One of the greatest advantages of generating energy from biomass is the fact that it unites economic and ecological factors.” Silvio Löderbusch, managing director at REMONDIS Production

## Huge volumes of primary energy sources and raw materials can be saved

The different processing and production plants, which have been put into operation at the REMONDIS Lippe Plant over the last few years, have helped to considerably reduce our consumption of primary raw materials and energy sources. By doing so, they have made a quantifiable contribution towards preventing climate change as can be seen by the following examples.

### Plastics recycling at the Lippe Plant reduces crude oil consumption by two tanker loads a year

227.68 barrels of crude oil are needed to produce one tonne of primary granulate. The 16,000 tonnes of plastic granulates made from waste at the facility in Lünen, therefore, cut oil consumption by 3.5 million barrels a year. That is the equivalent of 510,000 tonnes or the tank loads of two medium-sized oil tankers



### Biomass-fired power plant at the Lippe Plant is equivalent to a 300 km<sup>2</sup> green lung

Compared to conventionally produced energy, the carbon-neutral incineration of timber in the biomass-fired power plant at the Lippe Plant cuts CO<sub>2</sub> emissions by around 100,000 tonnes a year. As a result, the power plant's eco-friendly operations have the same effect as nine million spruce trees, the equivalent of a 300km<sup>2</sup> forest



### No Raw Materials – No Production

The REMONDIS experts make an important contribution towards conserving our planet's natural resources as well as towards preventing climate change – and at the same time help to ensure there are sufficient supplies of raw materials for the country's industrial sector. This is an extremely important factor for Germany as an industrial location, also

and above all as the country has so few natural resources of its own. Peter Altmaier also stressed this fact during his visit to the Lippe Plant at the end of October. Europe's state-of-the-art industrial recycling centre is not only of great interest to visitors from Asia but also to the Federal Minister of the Environment.

Peter Altmaier, Federal Minister of the Environment, visited the Lippe Plant on 30 October – read more about his visit on the next page.

# Federal Minister of the Environment "greatly impressed" by REMONDIS

## JOINT CALL FOR MORE RECYCLING

**REMONDIS®**



Nominated for the  
"German Sustainability  
Award 2012"

During his visit to the Lippe Plant in Lünen on 30 October, the Federal Minister of the Environment, Peter Altmaier, was impressed by Europe's largest recycling centre as well as by REMONDIS, the leading water and environmental service company in Germany. "It is setting an example for all companies – both in Europe and throughout the whole of the world. My visit has further reinforced my belief that it is possible to achieve change." Following his visit, the minister held a press conference during which he stressed just how important it is for a country such as Germany, which has so few natural resources of its own, to recover valuable materials from waste. REMONDIS and the Environmental Minister both agreed that materials recycling must be increased.



Peter Altmaier, Federal Minister of the Environment

Peter Altmaier took the time to tour the Lippe Plant as well as to meet the members of the supervisory boards and the management boards and the company's senior executives. It became clear during these discussions that ecological and economic issues can only be reconciled through ambitious recycling activities. Very few companies are able to contribute towards supplying industrial businesses with raw materials and at the same time towards protecting the environment and achieving climate targets as extensively as REMONDIS does. For many years now, the company has been fighting against the subsidisation of further incineration capacities both at home and in other European countries and is not investing in this sector anywhere in the world. Instead, REMONDIS is investing heavily in new sorting facilities, composting plants and innovative recycling processes. REMONDIS has now been nominated for the German Sustainability Award in recognition of its strategy to promote renewable raw materials.

REMONDIS believes there is much room for improvement in the area of plastics recycling. The recycling rate of plastics is at its lowest level since the introduction of the so-called

'dual system' (collection of waste packaging) in Germany not least because of the policy followed by the former monopolist, DSD GmbH. Instead of having 100% of the material sent for materials recycling, as REMONDIS has been demanding since the start, up to 60% is used as a reducing agent in steelworks or burned as substitute fuel. This is an unacceptable situation, especially as the potential for additional raw materials from municipal waste is about 70kg per person per year if the system were to be improved – as is being promoted by REMONDIS.

The Federal Minister of the Environment confirmed that politicians will have to concentrate even more on the subject of recycling over the coming years. The next step in Germany is the introduction of the recycling bin which will be used for collecting not just waste sales packaging, as is the case at the moment, but also for waste products made of similar materials. The minister did not, however, answer the questions of who must pay for the bin and who will be permitted to empty them. Whilst REMONDIS is trying to defuse the dispute between public and private-sector waste management businesses and is arguing in favour of everyone working together as partners, the minister replied to the question, whether there would be a draft law before the next general election, with the words: "We haven't yet reached the point where everyone is prepared to step up to the mark." He made it very clear, however, that he wishes to find a compromise that everyone can live with so that it will not be necessary to set up a mediation committee between the two houses of parliament, the Bundestag and the Bundesrat. He didn't rule out either "that at some stage or other I will make a suggestion that everyone is happy to accept."

Recycling will continue  
to grow in importance

# From the Packaging Ordinance to the Law on Recyclable Waste

DR THOMAS RUMMLER ON THE CHANGES TO THE KERBSIDE COLLECTION OF RECYCLABLE WASTE IN GERMANY

In 1991, the German parliament passed the Packaging Ordinance which set out extensive requirements regarding product responsibility, the creation and extension of kerbside collection systems and recycling. This model, which has received much attention from abroad and been copied many times over, was a major driving force behind the development of the advanced recycling structures in Germany. What needs to be done now is to further develop the kerbside collection system for recyclable waste using the present concept and the new Federal Recycling Law as our basis.

The aim of the initiative is to move beyond simply collecting sales packaging and ensure that non-packaging waste made of similar materials is also recovered and returned to material cycles. In order to prepare themselves to draw up a regulation for the future collection system, the BMU (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety) and the UBA (Federal Environment Agency) commissioned a number of studies. The results of these were then integrated into a business game organised by the BMU and UBA involving all those affected. The goal was to clarify unresolved issues so that a regulation could be drawn up to establish a uniform collection system for recyclables.

The BMU then drew up a number of propositions based on the results of these studies and the business game. These should create the framework for the discussions regarding the future regulation. The following gives an overview of the main points listed in the position paper:

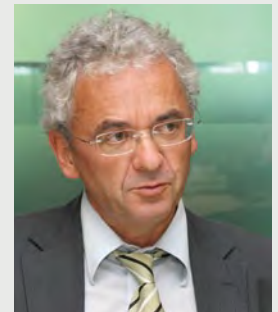
- **Uniform collection of recyclables:** by introducing the recycling bin, a system is to be created that is based on a nationally uniform reference catalogue. Besides being used for plastic & metal sales packaging, the bins will also be for other types of plastic & metal household waste.
- **A nationwide, resident-friendly kerbside collection system:** the goal is to set up a collection system that takes local structures into account. Cost efficiency should be high on the list of priorities.
- **Ensuring there is competition within the system:** intact competition promotes innovation and is an effective way of establishing efficient structures and lowering costs.
- **Product responsibility as the underlying principle:** as a result, producers and companies will have an economic incentive to design products that can be more easily recycled and to avoid excess packaging.

- **Transparency and supervision via a “central office”:** a recommendation has been included to set up a central office that will be financed by those with product responsibility and that will have national powers to improve transparency, monitoring activities and implementation.
- **High ecological standards:** the efforts being made towards increasing resource efficiency need clear targets regarding collection and higher recycling rates.

These, therefore, are the various positions. What now needs to be done is to engage in ongoing dialogue with all those involved and follow the parliamentary process to find a sound concept. During this period, the different positions on the future structure of the kerbside collection of recyclables must be examined whilst looking at what has already been achieved. Moreover, the facts documented by the studies and recycling targets must also be assessed so that a compromise is found that is in the public interest and makes good economic and ecological sense. If all those involved can reach an agreement, then steps can be taken to introduce a law next year – and, as a result, take a further big step forward along the path to further extending the recycling sector in Germany.

**“Extending the kerbside collection of sales packaging to include other waste products will benefit local inhabitants and it also makes good economic and ecological sense.”**

Dr Thomas Rummler, principal at the BMU (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety)



Dr Thomas Rummler is a principal at the BMU (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety)

**A national law will come into force at the beginning of 2015 making it obligatory for waste paper, metal, plastic and glass to be collected separately across the country**

# Berlin Paper

## HIGH-TECH PAPER SORTING PLANT OPENS UP IN THE CAPITAL

Waste paper is now considered to be one of the traditional sources of raw material and is in high demand within the paper industry as it offers both economic and ecological advantages. Whilst around 2.2 kilograms of wood and 4 kilowatt hours of energy are needed to produce one kilogram of new paper, the same volume of recycled paper can be made using 1.15 kilos of waste paper and 1.5 kilowatt hours of energy. A new paper sorting plant has now opened up in Berlin – one of the most modern of its kind in Germany – and will ensure that waste paper generated in Berlin and Brandenburg will be returned to production cycles as a secondary raw material. The plant was built and is now being operated by WUB Wertstoff-Union Berlin GmbH, a cooperation between Berlin Recycling and REMONDIS, which invested around eight million euros in the project last year.

REMONDIS stood out thanks to its very attractive business proposal, its relevant recycling experience and its extensive specialist knowledge

Berlin Recycling, a fully owned subsidiary of the municipal firm Berliner Stadtreinigungsbetriebe, is the leading company in Berlin providing a kerbside collection system for waste paper from private households. Looking at ways to ensure this business success continues as well as to safeguard the jobs of its employees, the company made the strategic decision to find an experienced partner to enable it to play a role in the sorting and marketing of waste paper. "Berlin Recycling felt it was important to take a further step along the supply chain and become involved in the processing and marketing of the materials we collect. This move benefits our customers, safeguards jobs at Berlin Recycling and increases competition on the waste paper market in Berlin," explained Vera Gäde-Butzlaff, chairperson of the board at Berliner Stadtreinigung. During the negotiations with the market players, REMONDIS not only stood out thanks to

its very attractive business proposal but also because of its many years of relevant recycling experience. "Being the market leader in the recycling sector in Germany, REMONDIS has extensive know-how and, among other activities, processes waste paper at over 60 sorting plants across the country. Moreover, the company likes to think long term when it comes to cooperation work and has PPP companies with more than 30 local authorities in Germany," commented Norbert Rethmann, honorary chairman of the supervisory board of the RETHMANN Group.

### Conserving natural resources and creating new jobs

Following the negotiations, the company WUB Wertstoff-Union Berlin GmbH was founded in 2011 and plans put forward to build a waste paper sorting facility. Work began on the 4,000m<sup>2</sup> building and its paper sorting facility in December 2011 and was completed in September 2012. Michael Müller, the senator responsible for city development and the environment in Berlin, welcomed this new public private partnership: "This project clearly shows that it is possible to find large companies that are prepared to invest in Berlin and create new jobs. Moreover, the environment will benefit here as these paper-sorting activities will reduce CO<sub>2</sub> emissions by more than 75,000 tonnes or save the equivalent number of trees found in the Grunewald Forest."



During the opening ceremony, Norbert Rethmann stressed just how interested REMONDIS is in working together with its public-sector partners on a long-term basis





Recycled paper	electricity	waste paper
	1.5 kWh	1.5 kg
New paper	electricity	timber
	4.0 kWh	2.2 kg

Producing paper from waste paper requires half the amount of energy needed to produce paper from fresh wood pulp

It also helps to save our trees. 2.2kg of timber are needed to produce one kilogram of new paper compared to just 1.5kg of old paper



The new paper sorting facility, which is located on Lahnstraße in Berlin's Neukölln district, is considered to be one of the most modern and innovative of its kind in Germany. Operating in two shifts, this plant will sort and, in some cases, press around 120,000 tonnes of waste paper from commercial, retail and industrial businesses as well as from private households every year.

The cooperation work carried out between Berlin Recycling and REMONDIS is a further positive example of how public and private-sector waste management companies can work together constructively and successfully. WUB Wertstoff-Union Berlin GmbH – a successful model with a promising future for Berlin paper!

The new plant will be able to sort up to 120,000 tonnes of waste paper every year

Sustainability

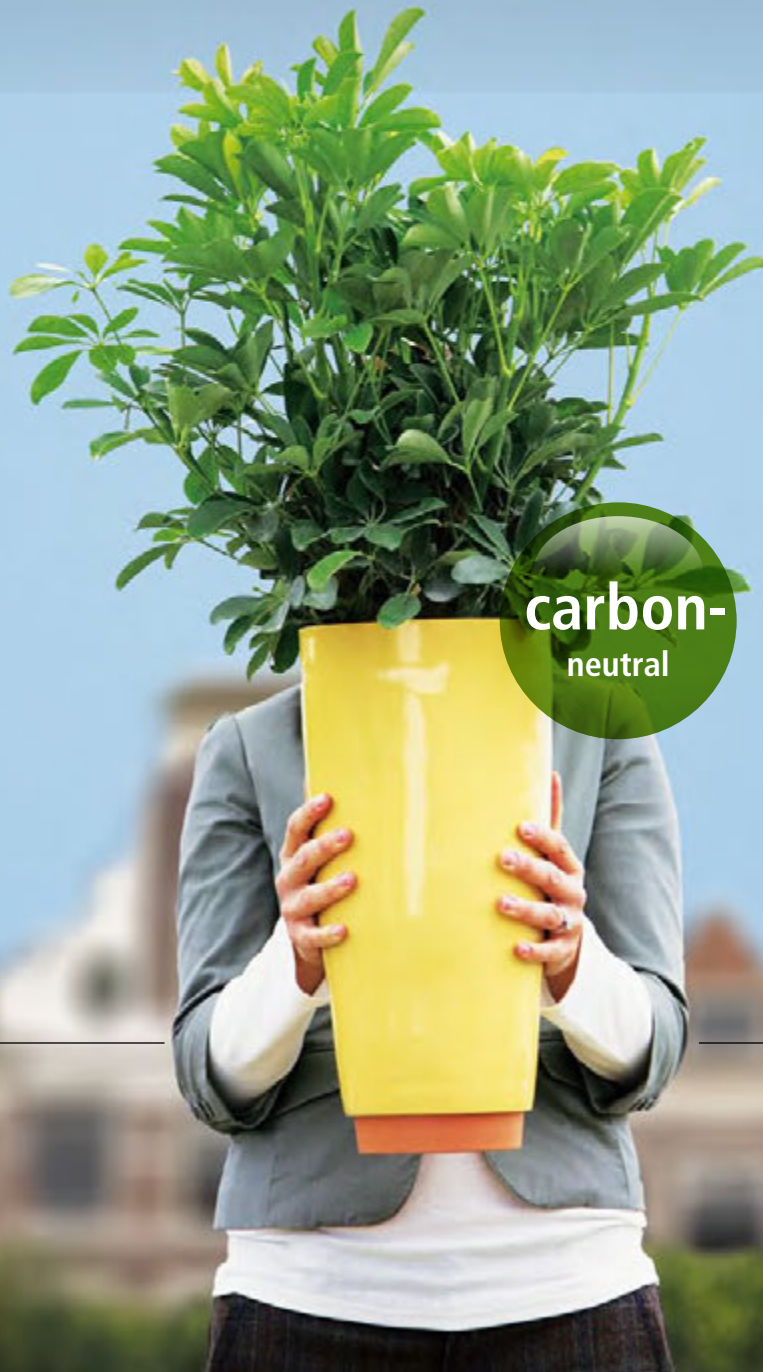
# On the way to becoming a climate-neutral city



DUTCH CITY OF NIJMEGEN LOOKING TO SYSTEMATICALLY REDUCE EMISSIONS



Nijmegen would like to become the very first climate-neutral town in the Netherlands. In order to achieve this aim, the local authorities have put together a whole variety of very different initiatives – from setting up a sustainable mobility system to building intelligent district heat networks. The overall goal of all these measures is to ensure that the city's energy supplies are as efficient and as climate friendly as possible.



carbon-neutral

Sustainable developments are needed to prevent climate change. Towns and districts can play an important role here



“We want to be the first city in the Netherlands to become climate neutral – this is both a challenging and an important task.”

Jan van der Meer, member of the Nijmegen City Council

Nijmegen, which is situated close to the German border, has 165,000 inhabitants and is the oldest town in the country. This Hanseatic city succeeds in uniting traditional values with future-oriented ideas and its ambitious plan is now to have Nijmegen become a carbon-neutral town by 2045. City Councillor, Jan van der Meer, commented: “ARN B.V. will be playing a decisive role in our attempt to reach our environmental goals.” This waste management company is a public private partnership, in which REMONDIS owns a 40 percent share. The majority shareholders are three municipal associations which belong to a large number of the districts in the Province of Gelderland.

#### **An initiative supported by the city and local businesses**

A complex, multi-layered and long-term project is required to turn a city into a climate-neutral place. Nijmegen has already made great progress over the last few years. Everything began in 2008 with the foundation of the Nijmeegs Energy Covenant (NEC) and it is not by chance that the name brings the city's professional football club, NEC Nijmegen, to mind. ARN was one of the joint initiators of the Nijmeegs Energy Covenant. Uniting the public and the private sector, the NEC represents the mutual efforts being made by all involved to cut energy consumption – with the overall goal being to cut the equivalent amount of gas and electricity consumed by 181,000 households each year. As a result, CO<sub>2</sub> emissions can be cut by 905,000 tonnes over a three-year period.

#### **Generating gas and electricity responsibly**

The decision was made two years ago to have all public transport buses running on biogas from 2013 onwards. This, in turn, led to ARN building a digestion and compost-

ing facility for organic waste. This plant was completed in October and will now produce 2.5 million cubic metres of climate friendly gas (natural gas quality) each year. The new facility is located approximately five kilometres away from Nijmegen in the town of Weurt. ARN also operates a thermal treatment plant on the same site where it produces energy using secondary fuels. “Each year, we feed around 160,000 MWh of electricity into the national grid,” explained managing director Gerard van Gorkum.

#### **Climate-friendly heat for new residential areas**

In addition to supplying electricity, the PPP company will also be providing district heat in the future, as the Nijmegen city council decided to set up a district heat network a few months ago. Plans are for ARN to supply 3,000 existing and 11,000 new-build homes with district heat before 2015. Compared to homes that are equipped with individual heating systems run on primary fuels, this district heat network can cut CO<sub>2</sub> emissions by up to 70 percent. The district heat supply contract has been concluded for a 30-year period. If the maximum possible amounts of CO<sub>2</sub> emissions are to be saved, then it is important that ARN's plant runs at its current level of performance on an ongoing basis. Jan van der Meer commented on this saying: “We are really pleased that this precondition can be guaranteed thanks to REMONDIS' involvement.” ARN's supply of district heat is also being supported by the Agentschap NL, an agency belonging to the Dutch Ministry of Economic Affairs, Agriculture and Innovation. This agency promotes exemplary developments in the area of sustainability. By providing financial support, the country is also emphasising just how relevant this project is for the environment.

ARN is one of the few companies in the Netherlands to produce energy from secondary fuels

According to the NEC, huge amounts of CO<sub>2</sub> emissions can be cut within the next three years if energy consumption is systematically reduced

-905,000 tonnes

#### **Towns take on a key role**

Nijmegen in the Netherlands, Masdar City in Dubai, Perth in Australia, Lingang New City in China and Civano in the USA: all around the world, cities are striving towards becoming climate neutral. A recent study published by the Fraunhofer Institute has confirmed just how effective such initiatives are: “Whilst towns are the cause of the problem, they are also the solution as we move towards creating a sustainable society.” According to the institute, approx. 80 percent of all CO<sub>2</sub> emissions are generated in or around towns and it is in these areas that the biggest reductions can be achieved. As a result, the Fraunhofer Institute says, large conurbations in heavily urbanised countries “already have a considerably lower carbon footprint per inhabitant than rural areas or than the country as a whole.”

# "RE to go" goes interactive

ANIMATED CONTENT IN THE DIGITAL EDITION OF REMONDIS AKTUELL FROM THE END OF JANUARY 2013



Picture galleries and 360° animations, statements and soundtracks, films, background information and links – all these features will be appearing in the "RE to go", the digital version of our company magazine, from the end of January 2013 onwards. This practical iPad app will, therefore, not only be providing users with even more information but will also turn REMONDIS aktuell into a real treat with all its interactive features.

Why not try out "RE to go" for yourself: simply go to your AppStore to download the free app!

The "RE to go" iPad app is already a flexible and modern solution and its functionality is as simple as it is user-friendly: once it has been downloaded, users can access all editions of the REMONDIS aktuell magazine that have been published since the beginning of 2011 in six different languages: German, English, Polish, Russian, Turkish and Hungarian.

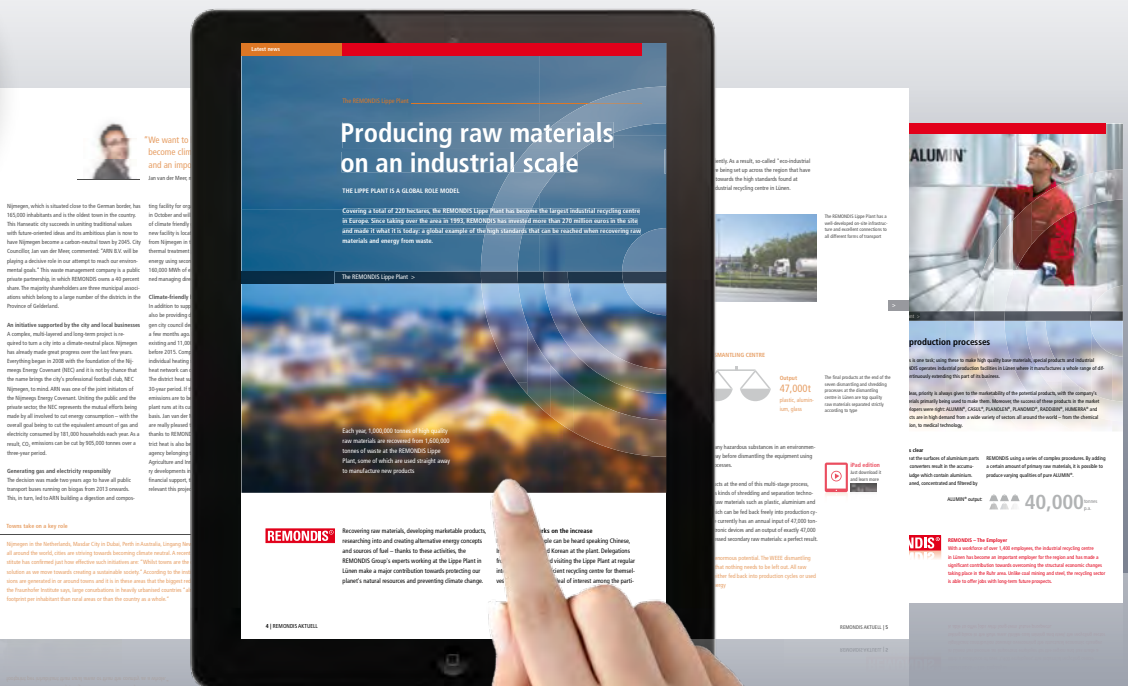
latest edition, for example, users can get to know all about the Lippe Plant in Lünen – one of the largest industrial recycling centres in Europe and REMONDIS' head office – by accessing film sequences and a 360° view of the plant. Moreover, they can navigate around the site to see the various facilities or have a look at the company's head office.

### More value per click

From the end of January 2013, therefore, the "RE to go" iPad app will be offering comprehensive bonus material in addition to the articles. The various contents can be activated by simply clicking on the corresponding icon. In the



"RE to go" – available with interactive features from the end of January 2013!



Australia

# United under one roof

INTEGRATION OF THIESS WASTE MANAGEMENT PROGRESSES SWIFTLY



When it acquired Thies Waste Management Services, REMONDIS gained a further 30 business locations and around 600 new employees in Australia. Working together, the company's recycling activities are now being pushed forward across the country and its wide-ranging service portfolio further extended – in both the municipal and the industrial sectors.

By purchasing Thies Waste Management in July, REMONDIS Australia succeeded in considerably extending its market presence down under. The company's task is now to unite the strengths of the two businesses in the best possible way – a plan that is already progressing rapidly across all levels. This unusually fast integration into the REMONDIS Group can also be seen by the outward appearance of the new businesses as more and more of the new branches and locations take on the 'REMONDIS look'. The fleet of vehicles, which joined the company as part of the acquisition, have also already been re-branded.

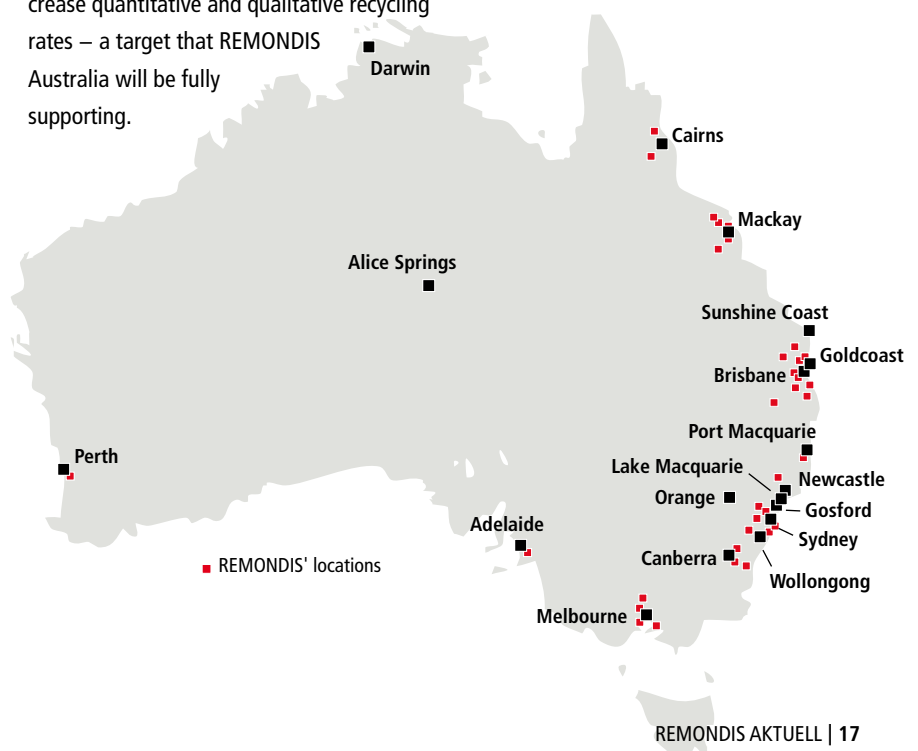
An important basis for achieving this rapid progress and for everyone working together in such a cooperative manner is the excellent reputation that REMONDIS enjoys on the fifth continent. The company group has been working in the country since 1982. Indeed its location in Penrith was, at that time, the company's first ever branch outside Germany. Today, REMONDIS can be found in all of the large cities in Australia where it is working continuously on extending its local activities.

Thanks to the takeover of Thies Waste Management, REMONDIS is now the fifth-largest company in the Australian waste management market. Its industrial, commercial

and municipal customers will now all benefit from the company's much larger range of services and greater regional presence. Besides extending the number of services it offers, the company plans to concentrate above all on expanding its recycling activities. Conserving natural resources and preventing climate change are two subjects that are growing in importance down under. The country's various states have already taken up the cause and are not only looking to reduce volumes of waste but also to increase quantitative and qualitative recycling rates – a target that REMONDIS Australia will be fully supporting.



More services and higher recycling rates – these are REMONDIS Australia's main goals



Water resources management

# Soaking up the sun



SOLAR SEWAGE SLUDGE DRYING FACILITY PUT INTO OPERATION IN THE TURKISH CITY OF FETHIYE

When asked to name popular holiday destinations in Turkey, most people would mention the region between Side and Alanya. But have you heard of Fethiye, the lively port town on the Lycian coast that unites tourism and the Turkish way of life? Nestled in a valley overlooking the Gulf of Fethiye with its twelve islands surrounded by turquoise water and with the Taurus Mountains rising to up to 2,000 metres behind it, Fethiye has become an increasingly popular destination for holidaymakers over the last few years. Tourism, however, is not the only area that has been expanding recently – the city's water management and recycling sectors are also on the increase thanks to the support it has been given by REMONDIS. This summer, the country's first ever fully automatic solar sewage sludge drying facility was put into operation in Fethiye.

Tourism is not the only sector that is enjoying growth in the Fethiye region

Turkey has one of the world's fastest-growing water and recycling sectors. REMONDIS had recognised this early on and has been involved in various different projects there for many years now. Besides the sewage treatment plant, which has been operated by REMONDIS since 2007, this solar sewage sludge drying facility is yet another major project to be implemented in Fethiye. The latter is a so-called "build-operate-transfer" project which involves the company financing and constructing the facility as well as running it for a 10-year period. At the end of the ten years, the facility will then be handed over to its new owners, the City of Fethiye. What goals should be achieved as a result of drying sewage sludge? The primary aim is to reduce the volume of sewage sludge that needs to be disposed of. Depending on how dry the material is at the end of the process, the input volume can be reduced by up to 70 percent. A further advantage is the increased calorific value of the sewage sludge – roughly equivalent to that of brown coal – transforming it into a valuable source of energy. Moreover, agricultural businesses can continue to use the sewage sludge as a fertiliser once it has been dried.

### Tapping into the sun's energy

Compared to thermal drying facilities, in which fossil fuels are used to remove the water from the sludge through evaporation, the solar sewage sludge drying process requires far less energy and is increasingly being seen as the technology of the future. The sun has been the Earth's greatest source of energy for 4.6 billion years now. And the good news is that its energy will last for a further five billion years. Anyone who has had a sunburn knows just how strong the sun can be. The power of the sun on a cloudless day when it is at its highest point is around 1,000 watts per square metre. Put together, this is more than 6,000 times the energy requirements of the human race.



Every year, a total of 12,000 tonnes of sewage sludge can be dried in Fethiye using the sun's energy

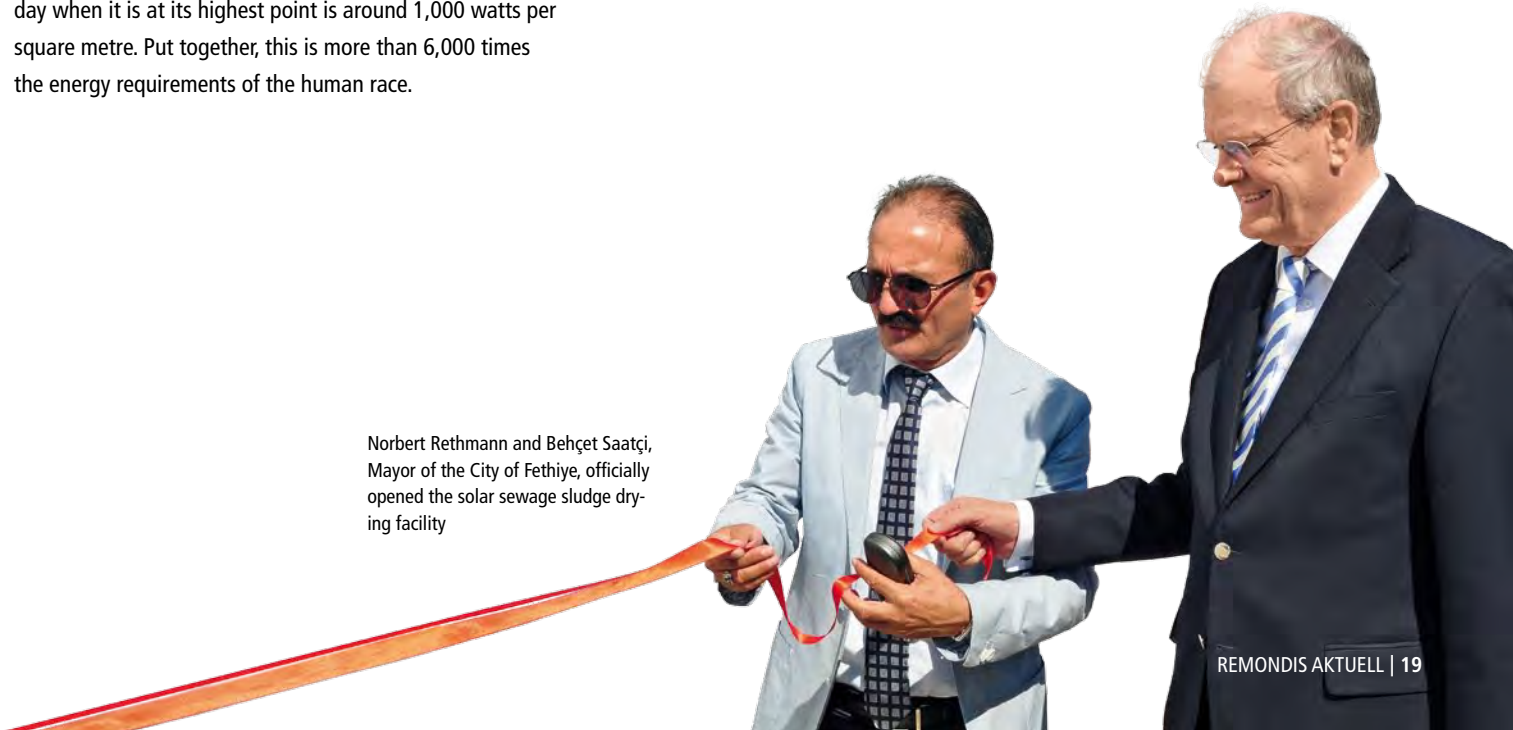
**12,000  
tonnes  
sewage  
sludge**

### Sustainability by dispensing with fossil fuels

The new facility in Fethiye, which has been built on an area covering 3,600 square metres, uses the natural energy of sunlight and will be able to dry a total of 12,000 tonnes of sewage sludge every year. The following process is used: once the sewage sludge has been delivered from the sewage treatment plant, it is placed into a loading bunker, which is an enclosed unit to prevent unpleasant odours from escaping. The sewage sludge is then automatically transported to the drying area where the sun's rays are used effectively to dry the material until it has a 50 percent dry content. An automatic air conditioning system with a total of 30 industrial fans monitors the air and ensures that the moist air is extracted and released via four extraction fans. The dried sewage sludge is then transported to the relevant containers via a conveyor belt and is either taken to landfill or returned to the economic cycle as a source of energy or as fertiliser. Hardly any fossil fuels are needed for this process. Thanks to the energy of the sun, a waste product can be turned into a valuable source of energy.

The solar sewage sludge drying process requires very little energy and is increasingly being seen as the technology of the future

Norbert Rethmann and Behçet Saatçı, Mayor of the City of Fethiye, officially opened the solar sewage sludge drying facility



# Clean water in the Wedemark district

## KED INVESTS IN STATE-OF-THE-ART PUMP STATIONS



Water is as vital for human survival as oxygen and light. Whereas people can live for up to 40 days without solid food, their chances of survival decrease rapidly after just three or four days without water. Looking at population growth around the world, professional water resources management is, therefore, becoming increasingly important. KED Kommunale Entsorgungsdienste GmbH & Co. KG is leading the way here and has invested a considerable sum of money in the technical infrastructure it uses to treat wastewater.

KED has invested several million euros in setting up a central wastewater system since 1986

KED has been working on behalf of the District of Wedemark treating its wastewater since 1986. During the 80s and 90s, KED invested several million euros in setting up a central wastewater system. Besides building two sewage treatment plants in Bissendorf and Resse, these investments also included constructing a 90-kilometre sewage pipe network and almost 100 pump stations. Thanks to the regular maintenance work it carried out and the money it invested in spare parts, KED was able to ensure that the technology used at the facilities was in a perfect technical condition. "After 25 years of operation, however, it is, in some cases, not worth spending any more money on repairing the facilities. When this point is reached, it is necessary to invest in a new facility or facility parts," explained Dr Günter Fehr, managing director at KED. Over the last two years, therefore, KED has built a total of eight new pump stations. Priority has also been put on ensuring that the pumps are

equipped with state-of-the-art technology, for example using low-energy pumps and having these connected to KED's central warning system so that any malfunctions are picked up immediately. Moreover, many of the pumps have had biofilters installed to prevent – as far as possible – unpleasant odours from escaping.

Plans are for the building measures which are being carried out on the various pump stations this year to have been completed before the arrival of winter. "We are working together with several companies at once to keep the building time as short as possible as well as to keep any possible disturbances for the local inhabitants to an absolute minimum," said Marco Leverenz, operations manager responsible for the project at KED. Leaflets had been delivered to all residents before the projects actually began to inform them about the measures that had been planned. "There was great interest among the general public," Dr Fehr was pleased to note. "And, being a customer-oriented service provider, we are very happy to discuss our work," he added.

### Stricter water regulations expected

"The processes currently being used in the sewage treatment plants will also have to be altered to meet the more stringent water regulations which are expected to come into force in the future," commented Michael Figge, who has been joint managing director at KED alongside Dr Günter Fehr since the beginning of this year. Michael Figge also represents the co-owner REMONDIS Aqua GmbH & Co. KG, which operates more than 150 wastewater treatment plants across the country. As a result, the district of Wedemark is now also able to benefit from the company's extensive experience of water resources management.



Construction work being carried out on a new pump station



The pump stations have been installed below ground



# Successful transborder business

## WAL-BETRIEB'S ACTIVITIES EXTEND BEYOND THE WATER ASSOCIATION'S BORDERS

Water supply in the Niederlausitz region has enjoyed a long and successful history. Drinking water was supplied by tap for the very first time in the Lausitz region one hundred years ago. The Lausitz Water Board (WAL) was founded 80 years later. And Wasserverband Lausitz Betriebsführungs GmbH (WAL-Betrieb) has been running the operations of this municipal water board for the last seven years now where it is responsible for supplying drinking water to the approx. 200,000 inhabitants living in the south of Brandenburg and neighbouring districts in the state of Saxony as well as for treating their wastewater. WAL-Betrieb, however, has also been enjoying great success beyond the water board's boundaries.

WAL-Betrieb, a company belonging to REMONDIS Aqua GmbH & Co. KG, has been following a vision right from the very first day it began its operations. "We wish the new company to become a flagship business within the water management sector; one that implements international standards when it comes to innovation, modernity and reliability," Thomas Breitkopf, REMONDIS board member, announced on signing the contract with the water board on 17 February 2006. These ambitious plans have already proven to be a success with the company's head office (based in Senftenberg) currently running over fifteen operations management projects in the east of Germany and a number of international projects as well as providing a range of technical, commercial and management services. The highly qualified staff at WAL-Betrieb, for example, have been sharing their know-how with those working in the Russian city of Arzamas and several Polish municipalities to help them modernise their water supply and wastewater treatment systems.

"We provide our services well beyond the water board's boundaries. As a result we are able to run the company more efficiently than the water board would be able to do with its current structure. This, in turn, creates two major advantages for our customers: their water charges remain stable and local jobs are safeguarded," explained Marten Eger, managing director at WAL-Betrieb. The key, therefore, to the company's success is its targeted strategy to extend its business activities beyond the water board's boundaries. Moreover, WAL-Betrieb has also expanded its portfolio to include a training centre which is located in Senftenberg, too. The centre has already welcomed Syrian, Egyptian, Turkish and Chinese interns, many of whom now play an important role in water companies in their home countries. One important consequence of the company being run so efficiently is the fact that the water board's customers have enjoyed stable charg-



es over the last twelve years. The partnership between WAL and WAL-Betrieb is a perfect example of public and private-sector cooperation work within the water sector.

### Seal of quality awarded once again

This Senftenberg water management business is able to underline the high quality of its processes and products as well as of its services as it has once again been awarded quality and environmental management accreditation in accordance with DIN EN ISO 9001 and 14001. "This accreditation is the result of our efficient and, in particular, our high quality and legally compliant operations which fulfil stringent international water management standards. It will also help us to shape and steer WAL-Betrieb as it moves into the future," commented Marten Eger. Whether regional or national – WAL-Betrieb is a flagship business within the professional water management sector.



Andreas Bankamp (right), managing director of REMONDIS Aqua, talking to Sigurd Heinze, district administrator of the Oberspreewald-Lausitz district, during the Lausitz Water Board's 20th anniversary celebrations



# Working together for the local residents

## THE BAVARIAN CITY OF GEMÜNDEN BENEFITS FROM REMONDIS AQUA'S SERVICES

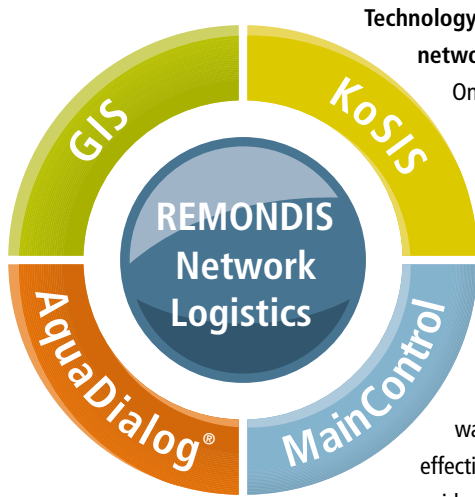


An ever increasing number of local authorities and companies are using IT-based services to help them manage their water systems. One example here is the Stadtwerke Gemünden am Main, a public utilities company with whom REMONDIS Aqua has been working successfully for several years now operating its sewage network and sewage treatment plants – a great example of cooperation work between the public and private sectors.

Precise planning work is based on facts. In order to ensure that it has both, the municipal company has been using REMONDIS Aqua Services' innovative network solutions. Thanks to these special software systems, this city in Lower Franconia is making its water management tasks more transparent and more efficient.



**“Knowing about the condition of the pipes allows us to act rather than just react.”** Henry Bürgermeister, technical operations manager responsible for wastewater in Gemünden



### Technology and services for intelligent network logistics

One of the IT solutions being used is the GIS – geographical information system – which enables data from a wide range of sources and formats to be pooled together and portrayed as a digital map on computer screens. By managing the network in this way, the employees are able to access inventory data about the sewer and water pipes far more quickly and far more effectively than in the past. Decision-makers are provided with the latest geographical, technical and business information making it much easier for them to plan ahead. Moreover, REMONDIS Aqua's GIS system provides the City of Gemünden with comprehensive information so that it can plan ahead in other areas as well – for example to improve its energy supply and road networks.

REMONDIS Aqua helps its customers to select, implement and use an individually configured, web-based GIS

A further software solution from REMONDIS' network logistics portfolio is KoSIS which is helping the city to develop a cost-optimised inspection and renovation strategy for its sewage network. The initial step in this process was to

predict how the sewage network will age. This forecast was based on selective inspection work and special mathematical and statistical methods. In order to evaluate the condition of the whole of the sewage network in Gemünden, therefore, only approx. 20 percent of the 120-kilometre pipe network needed to be inspected with a video camera. With the help of comprehensive simulation models, the data gathered from the CCTV recordings was then used to predict how the network will deteriorate and so where renovation work will need to be carried out in the future. Henry Bürgermeister, technical operations manager responsible for wastewater in Gemünden, commented: "Knowing

Thanks to KoSIS, the cost of inspecting a sewage network alone can be reduced by over 50 percent.

about the condition of the pipes allows us to act rather than just react. A huge advantage as investing reasonable sums of money in targeted renovation work is far better than having to repair damage which generally involves high or even incalculable costs." As a result, the KoSIS process plays a decisive role in ensuring that the funds available to the city are used sensibly and that fees are kept at reasonable levels.

### Ongoing optimisation of processes

Indeed cost savings were a priority back in 2005 when REMONDIS Aqua took part in and won a Europe-wide tender issued by the City of Gemünden thanks to its highly cost-effective bid. This tender involved managing an investment project to build a central sewage treatment plant as well as managing the technical side of the city's sewage network and sewage treatment plants. The innovative

concept presented by REMONDIS combined with its professional management of the overall process resulted in the municipal company spending 2.7 million euros less than it had originally planned and in the plant being completed six months ahead of schedule.

Over the years, considerable savings have not only been made in such investment projects but also in the area of overheads as processes have gradually been optimised. The municipal company, for example, has been able to lower its costs by procuring its chemicals and consumables via REMONDIS' central purchasing division. Another advantage: the clear contractual arrangements have made it possible to calculate the overheads more precisely than before. A whole variety of advantages can, therefore, be achieved when the public and private sectors work together – as this example clearly shows.

Investing reasonable sums of money in targeted renovation work is far better than having to repair damage

The detailed analyses carried out to check the quality of the water always underline just how successful the IT-based measures are



Increasing efficiency

# Paving the way for clean water



## THE RUSSIAN FEDERATION SETS THE COURSE TO ENABLE IT TO REFORM ITS WATER RESOURCES SECTOR

Russia is giving top priority to modernising its water resources sector. In addition to its national water strategy, the Government initiated a state-run programme entitled "Clean Water" last year. As a result of this programme, billions are to be invested in projects across the country to push forward the expansion and optimisation of its infrastructures.

The main aims of the Russian water strategy are: to ensure water is used sparingly, to reduce water loss due to leaks and to improve the quality of drinking water

The list of jobs to be done over the next few years is long as the plants and networks there are in need of a complete overhaul. There is, therefore, also a great need for capital, technology and specialist know-how. The result has been a growing demand in Russia for experienced private-sector investors such as REMONDIS who can enter into public private partnerships to help them modernise and operate their plants.

### Added impetus through the new Water Act

An important step towards ensuring that reform is carried out quickly was made with the passing of a new law on 07 December 2011 which sets out the legal regulations concerning drinking water supply and wastewater treatment. It strengthens the position of private sector companies in the area of operating water facilities. Moreover, it clarifies a number of important points for investors such as the granting of permits and organisation of tariffs. Time is now of the essence as local authorities throughout the country must have checked their water resources systems and drawn up concepts to run them more efficiently by the end of 2013.

### Successful cooperation work in Arzamas

REMONDIS has been playing a pioneering role when it comes to working as partners with Russian authorities in the water sector. At the end of 2009, the company signed a cooperation agreement with the City of Arzamas, a town with 120,000 inhabitants situated east of Moscow in the administrative district of Nizhny Novgorod. Six months later, the newly founded public private partnership company, OOO REMONDIS Arzamas Service, took up its tasks of supplying drinking water and treating wastewater from the city as well other parts of the district.





Since then good progress has been made to modernise the infrastructure and to run the system more efficiently. Furthermore, the quality of the services have been greatly improved.

The main reasons behind the success of this PPP company can be put down to its modern management methods combined with a clear business strategy and a well thought-out operational concept that complies with the new Russian Water Act. The tasks carried out by OOO REMONDIS Arzamas Service range from running the technical facilities, to providing technical and laboratory services, to training the employees. So far, the considerable investment sums, financed by company funds, have been ploughed into plant technology and logistics as well as into modernising the networks, fittings and laboratory equipment. Moreover, a geo information system has been set up for the pipe network with a digital database to provide information and enable the company to plan ahead. The workplaces of the employees have also been improved.

The company has set up a communications centre in the middle of the town to inform local inhabitants about their work. There is, however, a growing number of visitors from other local authorities and businesses from all across Russia who are coming to Arzamas to find out about the progress being made in the water sector there for themselves.

#### **PPP law to speed up the modernisation process**

Up to now, public private partnership companies have been founded in Russia based on regional ordinances. What has been missing has been a mandatory, higher-level framework valid for the whole of the Federation. This should now be achieved by a new PPP law, the draft bill having been published by the Ministry for Economic Development in Moscow on 22 June this year. Once the federal law has been passed, the Ministry is expecting a rapid increase in the number of new PPP projects. This, in turn, should speed up the modernisation and expansion of the public infrastructure.

Difficult framework conditions: whilst high investments are needed, revenue from water is falling

#### **Background**

Russia has set the legal framework for drinking water supply and wastewater treatment in a new law. This clarifies issues concerning water quality, the organisation of tariffs and the access of private investors to the market. Generators of wastewater shall, in the future, be obliged to pay more towards the treatment costs. An enormous amount of capital is needed to modernise the various facilities. This sector will remain an attractive one for both domestic and foreign investors.

# Caring about the environment

## MARITIM HOTELS OPT FOR REMONDIS' SUSTAINABILITY CERTIFICATE

**REMONDIS®**



The Maritim Hotel group is one of the largest hotel chains in Germany and is based in the city of Bad Salzufflen in the German state of North Rhine-Westphalia. The company has 37 hotels in Germany as well as a further 14 hotels in countries such as China, Egypt, Spain, Turkey, Latvia, Malta and Mauritius. The first ever Maritim hotel, the Maritim Seehotel on the Timmendorfer Strand, was opened in 1969. Today, all of its hotels have 4 stars and specialise in meetings and congresses according to its motto "meetings and accommodation under one roof". Right from the very beginning, Maritim has focused on environmental issues and using natural resources responsibly. It was not surprising, therefore, that it selected REMONDIS to be its waste management partner for all of its hotels in Germany. An excellent decision as events have shown just recently.

All Maritim hotels have introduced measures to reduce energy consumption and avoid unnecessary waste

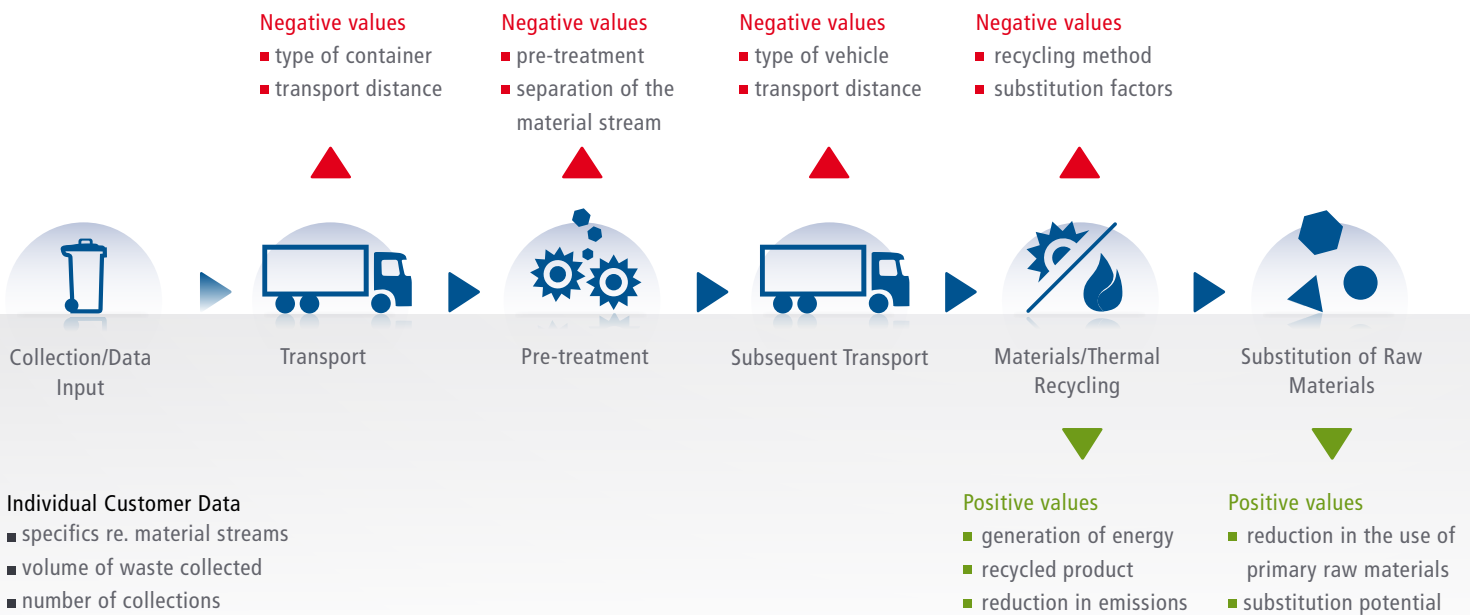


Maritim implements measures throughout its hotels to save energy, avoid unnecessary waste and protect the environment. It heats its hotels, for example, using environmentally friendly natural gas or district heat rather than scarce crude oil. Some hotels generate their own electricity such as the Maritim Hotel Teneriffa. The Maritim Hotel in Bonn, however, is the company's lighthouse project when it comes to protecting the environment. In 2007, it joined the "Sustainable Bonn" project and has been able to steadily improve its environmental performance since then. Having organised the UN Climate Conference several times, the hotel has extensive experience of holding green meetings. In July 2010, it was awarded Green Globe accreditation. The company then decided to set up its own "PROUmwelt" (PROEnvironment) initiative in 2011. This involved developing a catalogue of guidelines that covered the six main areas of an environmental management system: energy,

waste, water, purchasing, employees and mobility. In 2012, the Maritim Hotel Bonn was recertified by Green Globe. Special seminars have been held since then in which one employee from each hotel has been trained to become a sustainability adviser – something that is truly unique throughout Germany.

Maritim is, therefore, reacting to a global trend. More and more delegations from overseas, particularly those from the United States, wish to stay at hotels that offer green accommodation and green meetings, i.e. in hotels that can prove they promote sustainability. Until just recently, however, it was by no means easy for a business to present transparent concrete figures about its efforts to protect the environment. REMONDIS' new sustainability certificate has been introduced, therefore, at just the right time: customers, such as the Maritim hotels, are now able to prove – to





the exact tonne and kilowatt hour – just how much CO<sub>2</sub> and how many primary raw materials are saved as a result of the recycling measures performed by REMONDIS as well as how much energy can be generated from the remaining residual materials. “Sustainability is not a PR stunt for us,” stressed Matthias Schäfer, who is the project manager responsible for this at the hotel chain. “Sustainability is implemented throughout Maritim – from purchasing all the way through to waste management. This is why REMONDIS’ certificate is so valuable as it provides proof for our own environmental balance sheet.” Right from the very start when it began developing its sustainability certificate, REMONDIS looked to find a solution that would be as neutral and objective as possible. The data is calculated using an IT-based tool that was developed by the independent institute, ATZ Entwicklungszentrum headed by Prof. Martin Faulstich. It is based on the method of calculation used for a life cycle assessment according to DIN EN ISO 14040 and can, therefore, be implemented all around the world. All services provided by REMONDIS are included in the analysis from the collection of the waste at the customers’ all the way through to the recycling of each fraction. Having taken both negative values – such as transport – and positive values – such as the amount of energy generated and emissions cut – into the equation, the customers then receive a sustainability certificate for each individual business location.

As a result, REMONDIS’ sustainability certificate is not only an ecological USP for the Maritim hotels but can also be used as an effective monitoring tool. For the first time, the company can compare the different volumes of waste generated by each hotel and the effectiveness of their

individual recycling measures. Thanks to the uniform waste management concept which REMONDIS has implemented throughout the country, the hotels will also be able to further optimise their efforts in the future. The common goal of both the family-owned companies, Maritim and REMONDIS, is to segregate waste as cleanly as possible to achieve maximum recycling rates. For this reason, recyclables such as paper, card and cardboard, glass and even restaurant waste from the kitchen and oil separators are segregated at source so that each waste stream can be processed in the best possible way. At the end of the process, the independent institute ATZ Entwicklungszentrum and REMONDIS can present its customer with a certificate documenting its individual contribution towards sustainability. A classic win-win situation that not only benefits the hotels and their environmentally conscious guests but also the environment and the climate.

The common goal of both the family-owned companies, Maritim and REMONDIS, is to segregate waste as cleanly as possible to achieve maximum recycling rates



**“Sustainability is implemented throughout Maritim – from purchasing all the way through to waste management.”**

Matthias Schäfer, assistant to the Director of Technology at Maritim



Matthias Schäfer, technical project manager at Maritim, and Christoph Haub, key account manager at REMONDIS, in the atrium at the Maritim Hotel in Cologne

# Sustainable connections

REMONDIS SHOWS THE ADHESIVE INDUSTRY IN PARIS HOW GREATER SUSTAINABILITY CAN BE ACHIEVED

**REMONDIS®**

900 delegates and industry experts from 42 countries travelled to Marriott Rive Gauche's congress centre in Paris at the end of September to discuss the future of the international adhesive and sealant industry at the "World Adhesive & Sealant Conference 2012" (WAC). A long-term megatrend emerged during the three-day event that is traditionally closely connected to the chemicals industry: using sustainable methods in production processes as well as to procure raw materials. REMONDIS couldn't miss this event.

In many sectors, the supply chain ends when the products are sold. This means that the potential of the production waste remains unused

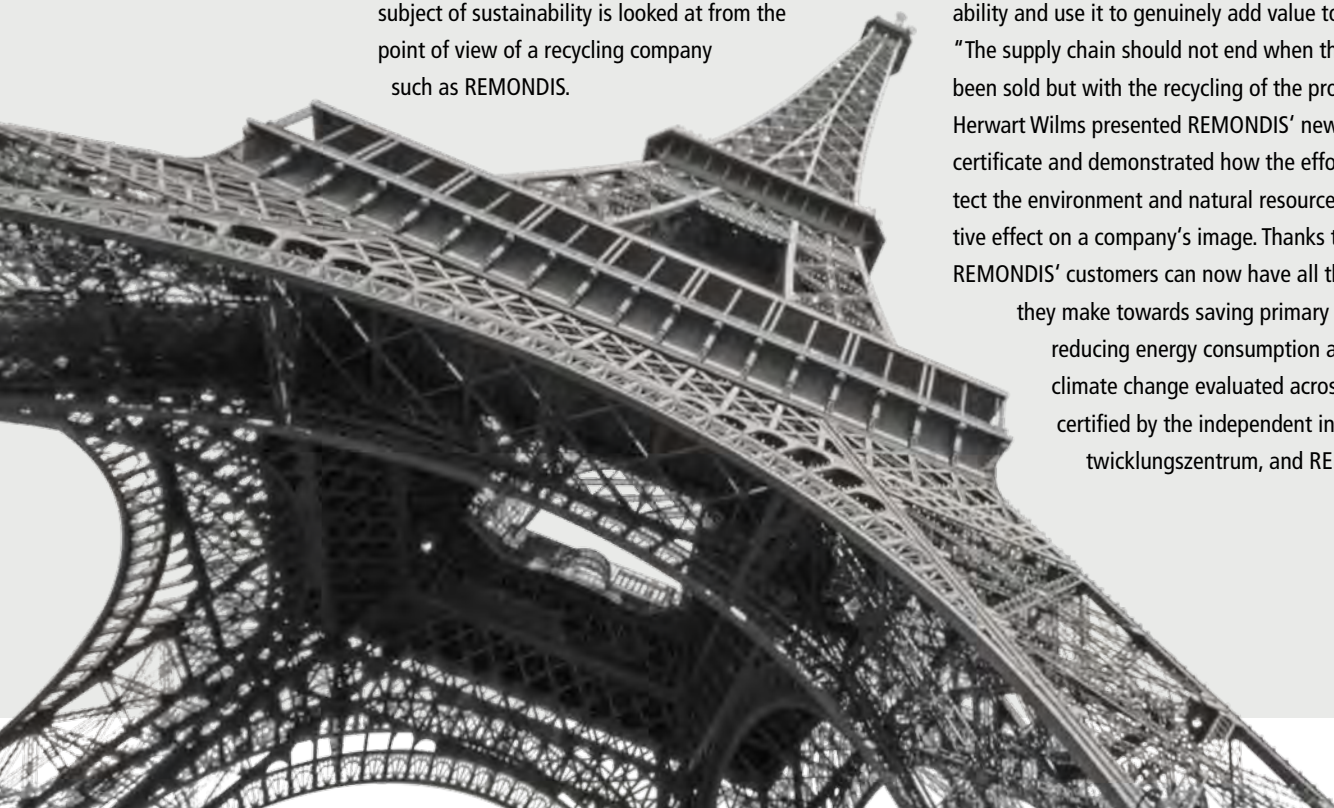
What for lay people would appear to be simply a footnote of industrial business is, in fact, a practically omnipresent industrial sector that has become indispensable for modern production processes. Many things, that used to be welded or screwed together in the past, are now glued, bound together and sealed. Even modern cars and planes could not be produced without the achievements of this industry. "Our industry is in good shape and we are optimistic for the future," commented Dr Ramon Bacardit, President of the international branch association, the FEICA, during his opening speech at the Marriott Rive Gauche's congress centre in Paris. "We must shape our own future by facing the following challenges: adopting the principles of sustainability, overcoming the problem of depleting supplies of raw materials, accelerating and extending technological innovation and tapping into areas of new potential." The FEICA President, therefore, summarised a whole number of challenges in just one sentence which at first glance would not appear to be connected to one another and which certainly cannot be solved in one go. Unless, that is, the subject of sustainability is looked at from the point of view of a recycling company such as REMONDIS.

It was, therefore, a logical move to invite Herwart Wilms, a managing director at REMONDIS, to be one of the keynote speakers at the event so that he could show precisely how these challenges are connected and how sustainability can be assessed and certified.



Herwart Wilms, managing director at REMONDIS, presented REMONDIS' sustainability certificate at the WAC in Paris

Herwart Wilms addressed the packed congress hall advising the industry experts to fundamentally change the way they think so that they pay more than just lip service to sustainability and use it to genuinely add value to their business. "The supply chain should not end when the products have been sold but with the recycling of the production waste." Herwart Wilms presented REMONDIS' new sustainability certificate and demonstrated how the efforts made to protect the environment and natural resources can have a positive effect on a company's image. Thanks to this certificate, REMONDIS' customers can now have all the contributions they make towards saving primary raw materials, reducing energy consumption and preventing climate change evaluated across the world and certified by the independent institute, ATZ Entwicklungszentrum, and REMONDIS.





# Working together is the best solution

## REMONDIS: A NATIONWIDE COLLECTION SYSTEM FOR RECYCLABLES IS ONLY POSSIBLE IF THE PUBLIC AND PRIVATE SECTORS WORK TOGETHER

Legislation on the uniform collection of recyclables in Germany is expected to be introduced during the course of next year (see also the guest article on page 11: "From the Packaging Ordinance to the Law on Recyclable Waste). In the run-up to this future law, REMONDIS has already begun investing and working together with its public-sector partners to establish a broad base for the collection of recyclables.



78 percent of all people living in Germany believe it is a sensible idea to introduce the recycling bin (source: Forsa Institute)

The legal basis for this joint work is the section of the Packaging Ordinance that covers the collection of materials that do not belong to the system, i.e. non-packaging waste made of similar materials. Being the contractual partner of the so-called 'Dual Systems', REMONDIS is predestined to participate in the introduction of the recycling bin by investing in the new system and working together with its public-sector partners.

### Successful projects in several districts

Thanks to the joint initiatives of REMONDIS and the local authorities, over a million local inhabitants already benefit from the advantages of having the recycling bin. They live in the Rhine-Sieg district as well as in the districts of Meißen and Unna. Looking at the experience it has gathered so far, REMONDIS is convinced that a nationwide collection system for recyclables can only be implemented properly in Germany if the work is carried out together with the local authorities.

### Comprehensive solution required if goals are to be reached

The BDE (Federal Association of the German Waste Management Industry) also welcomes the idea of a recycling bin and points to the positive progress already made as a result

**"We need ambitious recycling quotas."**

BDE President Peter Kurth

of the joint projects carried out together by public and private-sector waste management companies. Looking ahead at the future law on recyclable waste, the BDE is calling on all those involved not only to find an agreement on the recycling bin but also to find a remedy for the shortcomings of the current waste packaging collection system. This must be done if higher recycling rates and the ambitious environmental targets are to be achieved in the future.

### Background

The coalition agreement signed between the two governing parties in Germany stipulates that the Packaging Ordinance must be further developed and changed into a Law on Recyclable Waste. This idea focuses on the concept of having a recycling bin in which both waste packaging and non-packaging waste made of similar materials can be thrown away into the same bin so that recycling activities can become more efficient.

# Energy recycling

## FLUIDISED-BED POWER PLANT GENERATES ECO-FRIENDLY ENERGY

How long will global energy supplies last? This is the question that is currently dominating political and environmental discussions. The one thing that is certain is that our reserves of fossil fuels such as crude oil, natural gas and coal are running out and that the growing demand for energy from the various countries around the world will not be able to be covered by primary fuels alone in the foreseeable future. This is not only causing raw material prices to rocket but is also bringing the subjects of climate protection and resource conservation into the public eye. REMONDIS has been using future-oriented sources of energy for many years now. Its fluidised-bed power plant at the Lippe Plant supplies all the different production facilities located at the site with electricity, process steam and compressed air – using for the most part only secondary and substitute fuels. Perfectly closed material life cycles.



### REMONDIS®

The circulating fluidised bed process was jointly developed by Lurgi Energie- und Umwelttechnik GmbH and VAW Vereinigte Aluminium-Werke AG Bonn at the end of the 70s and then implemented on a commercial scale for the first time in Lünen. The original purpose of this fluidised-bed combustion (FBC) technology was to burn primary fuels

such as low-grade coal. The plant was then modified at the beginning of the 90s so that waste could also be incinerated in the facility. Since 2004, the plant has been run almost exclusively using secondary and substitute fuels such as sterilised meat paste, animal meal, waste from the chemical industry and sewage sludge. By switching from primary



# 6,700

average households could be provided with sufficient heat for a whole year by the steam produced by the fluidised-bed power plant

to secondary and substitute fuels, it has been possible to increase throughput to the current approx. 190,000 tonnes per year. A few facts and figures underline the efficiency of the power plant. Each year, around 51,000 megawatt hours of electricity are generated at the plant, the equivalent of the annual energy requirements of approx. 1,800 detached homes. The annual output of steam supplied to the businesses located at the Lippe Plant amounts to ca. 105,000 megawatt hours. This volume of steam could provide around 6,700 average households with sufficient heat for a whole year. What is also impressive is how the use of carbon-neutral secondary raw materials helps to cut CO<sub>2</sub> emissions, namely by around 70,000 tonnes a year.

#### Clearly below the '17. BImSchV' ordinance

"The primary goal of the fluidised-bed power plant is to achieve the highest possible levels of energy productivity and the lowest possible levels of pollutants. In order to ensure we reach this target, we have adapted and converted many areas of the plant. As a result, it now contains state-of-the-art technology so that we know that pollutant emissions are kept to a really low level at all times. Various cleaning components have been integrated into the power plant which ensure that emissions are clearly below the ceiling values stipulated in the 17. BImSchV, the 17th Ordinance of the Federal Emissions Control Act," explained Michael Mohri, power plant engineer and emissions control officer at REMONDIS Production GmbH.

The very different types of fuel mixtures (type and volume of materials fed into the plant) that are now used mean that the power plant is subject to different and greater loads than had been originally planned when the facility was built. In order to guarantee that the operations of the fluidised-bed power plant are not interrupted by these higher loads, it has to be checked thoroughly at regular intervals. "One of the tasks of this regular inspection work is to recognise in advance where damage may occur or where there are possible weak points and rectify these problems in good time," Mohri continued.

#### Access to company group know-how

Whilst the FBC plant is being inspected, the various companies at the Lippe Plant are supplied with process steam via two gas-fired auxiliary boilers so that they can continue their business as usual, i.e. 365 days a year, 24 hours a day. This year, the inspection work carried out on the fluidised-bed power plant lasted just 18 days. To be able to complete



the inspection work in such a short period of time, meticulous planning work must be carried out beforehand and a precise work and time schedule drawn up for each individual part of the plant. A total of approx. 1.5 million euros was invested in the project to cover the more than 350 tasks and repair jobs. Both external firms were used to perform a number of the tasks as well as the know-how of other REMONDIS companies. The BUCHEN specialists, for example, cleaned the boiler and the chimney flues and removed the ash from the combustion chamber. The experience of the XERVON experts was called on to coat the chimney flues to protect them from being corroded by aggressive flue gas components such as chlorine compounds. As a result, it was possible to optimise the processes and use cost-saving synergies efficiently.

The materials used to generate energy at the fluidised-bed power plant are almost exclusively secondary and substitute fuels

**Inspection work has to be carried out on the power plant regularly to ensure it remains available at all times.**



Major projects in the UAE

# Ruwais: on the way to becoming a major petrochemical complex

COMPREHENSIVE RANGE OF SERVICES FOR BUILDING AND EXTENDING INDUSTRIAL PLANTS

## **XERVON®**

Ruwais, an industrial site in Abu Dhabi, is booming. For many years now, XERVON has been playing an active role here – acting as a specialist service provider for complex shutdown tasks as well as for projects involving new builds or extension work – as this site has developed from being a refinery to becoming a mega-sized chemical and petrochemical complex.

Thanks to the many successful projects it has already carried out, XERVON has an excellent reputation as a shutdown specialist in Abu Dhabi as well as throughout the region.

Signs have been pointing towards expansion ever since the Abu Dhabi National Oil Company (ADNOC) created the Ruwais industrial site when it built its first huge refinery plant (120,000 b/d) there in the late 70s. Today, this location – around 200 kilometres west of Abu Dhabi City – not only refines crude oil and processes and liquefies natural gas but also produces large volumes of fertiliser and polypropylene. The large Shuweihat power plant (1,500 MW) and its desalination plant are also part of the site supplying energy and water to the industrial complex and a small town nearby.

XERVON has been active in the region as a specialist for shutdown services for many years now. It has been involved in a large number of turnarounds at the Abu Dhabi site successfully carrying out a very wide range of tasks and earning a good reputation at the same time. Only just recently, XERVON successfully completed a complex maintenance project at the crude oil processing plant on Zirku Island (also Abu Dhabi). During the shutdown period, for which only 27 days had been scheduled, a team of 225 employees carried out a whole variety of tasks involving electrical & instrumentation services as well as

## XERVON's complex services are in high demand in the United Arab Emirates, too. We are involved in many major projects that will run until 2020.

insulation and painting work on various parts of the plant and pipe racks.

"We have a very good set-up here in the region," commented Waleed Al Hazmi, managing director of the XERVON companies in the Middle East and Malaysia. "This is true for the high qualifications of the employees we supply in large numbers." The best preconditions for the mega projects due to take place in and around Ruwais, since the expansion plans of the plant operators there – Takreer (refinery), Gasco (liquefying gas), Borouge (PE and PP production) and Fertil (fertiliser production) – are far from over.

The aim is to turn Ruwais into a petrochemical complex by 2020 with work planned or already started to extend the existing facilities and build new plants. The first extension phase, which is estimated to involve contracts worth a total 40 billion US dollars, should be completed by 2014. A further estimated 20 billion US dollars will be invested in the sites from 2013 onwards. The current Borouge II extension project, for example, involves the installation of the world's largest ethylene cracker with a capacity of 1.5m t/a. The Borouge III project, due to take place in 2014, then plans to increase the plant's polyolefin capacity to 4.5m t/a. Fertil, a producer of fertilisers, is intending to raise the capacity of its urea plant from 0.8m tonnes to 2m tonnes of urea per year by 2013. It is likely that a further 3 billion US dollars will be invested to extend the existing Shuweihat power plant. The cost of building four nuclear power plants at Braka, which are due to have been put into operation by 2020, is estimated to be around 40 billion US dollars.

XERVON has already signed several contracts to provide services for some different current and future projects helping their clients to extend their various facilities in Ruwais.

For the six-stage extension plan for the Takreer Refinery, (which aims to increase its processing capacity by 400,000 b/d by 2013), XERVON has, for example, been

awarded a contract to carry out a whole work package – consisting of painting, insulation, scaffolding, fire protection and flooring work. During the various project phases, the scope of the contract will involve, among others, painting a total surface area of more than 500,000 square metres as well as insulating a 6-kilometre-long pipe ("jetty") which runs into the sea to a loading terminal for shipping oil and other refinery products.

XERVON's local site management team is responsible for ensuring that employees, equipment and material are always supplied just-in-time. This concept involves short distances as all XERVON employees live and work so to speak "under one roof" during both expansion phases. Whether it be apprentices, labourers, supervisors or site managers: they all live in an area covering approx. 12,000 square metres, where XERVON has created accommodation and an infrastructure to ensure that the approx. 800 employees have a comfortable place to live. This is an important factor helping to contribute towards the company's success as a service provider in Ruwais.

Around 800 XERVON employees – from trainees to site managers – are on the job site to ensure the extension work to the Takreer Refinery is completed on time.

From scaffolding to paintwork: XERVON has been commissioned to carry out a six-phase work package in Ruwais.



# New tasks in the west

## REMONDIS ACQUIRES HORSCH ENTSORGUNG IN TRIER AND LUXEMBOURG



Global success is only possible if a company is located close to its customers in the various regions it works in. Having an extensive network of businesses across a region increases both the quality and the availability of the services on offer and – in the best case scenario – leads to a family-run business such as REMONDIS being accepted as a ‘part of the family’ within the local economy. A glance at the map of Germany and neighbouring EU countries, however, reveals that there are still a few white gaps on the REMONDIS map. Two of these gaps have now been coloured in with the REMONDIS red: REMONDIS Industrie Service GmbH has extended its presence along the Luxembourg/Trier border by acquiring HORSCH Entsorgung GmbH in Trier and HORSCH Entsorgung S.a.r.l. in Luxembourg. Thanks to the takeover of HORSCH Entsorgung S.a.r.l., the REMONDIS Group is working in Luxembourg for the very first time.

The HORSCH companies originally belonged to the Köhler Group, a family-owned construction firm from Berlin. In the middle of the 80s, the Köhler Group entered the waste management sector, beginning with one location, namely HORSCH Entsorgung GmbH in Trier. A second location and a second company, HORSCH Entsorgung S.a.r.l., was then founded in Luxembourg at the beginning of the 90s. In 2005, HORSCH Luxembourg opened a further business in Entzange (France) to expand its activities in the Lorraine region. Both companies are accredited specialist waste management businesses in accordance with DIN ISO 9001:2000 and offer a wide range of waste management services that are a perfect addition to the activities currently being carried out by REMONDIS in the region.

REMONDIS has begun using the former HORSCH locations to collect commercial and hazardous waste using its own skips, hook-lift containers and other special containers as well as its own trucks. Recyclables such as paper, metal, plastics, timber and other materials are processed, repacked and then sold on. A full range of services is being offered in

the area of hazardous waste: from analysing the waste and determining the correct method of disposal, to collecting and packing solid and liquid materials in compliance with the laws, to transporting the hazardous products, to drawing up all necessary documentation. Moreover, the business location in Trier has been operating a temporary storage facility for hazardous waste since the middle of the 90s. In addition, its portfolio includes all types of remediation work as well as data and file destruction services. Together, the two locations collect and recycle around 150,000 tonnes of waste each year.

The HORSCH activities in Trier were taken over by REMONDIS GmbH, South West Region, – which has been active in Trier for many years now – on 01 November 2012. Dr Bernhard Schulze Langenhorst, managing director of REMONDIS Industrie Service GmbH in Lünen, welcomed the new additions to the company: “The two HORSCH companies and their wide range of services in both the commercial sector and the area of hazardous waste are a perfect addition to REMONDIS Industrie Service in this important European region.”




Thanks to the takeover of HORSCH Entsorgung S.a.r.l., the REMONDIS Group is working in Luxembourg for the very first time

Together, the two new REMONDIS locations collect and recycle around 150,000 tonnes of waste each year

“By extending our hazardous waste activities in the region, we will be able to offer our customers a full service covering all aspects of waste management and recycling.”

Georg Eicker, REMONDIS managing director responsible for the south west region

A map of Luxembourg and Trier, Germany, with two red pushpins. The left pushpin is over Luxembourg, and the right pushpin is over Trier. Callout boxes provide information about REMONDIS locations in these areas.

The first ever REMONDIS location in Luxembourg

Thanks to the acquisition of the business in Trier, REMONDIS is now able to extend its range of services in the region

Environmental services

# Bye-bye stand-by

SUCCESSFUL INTRODUCTION OF THE DIN EN ISO 50001 ENERGY MANAGEMENT SYSTEM



Südharzer Gipswerk GmbH

We've all seen it in our own homes. Countless electrical appliances in stand-by mode using electricity even when they are not needed. There is a great savings potential here if energy consumption could be limited to the actual use of the equipment. Industrial businesses are also looking at ways of saving energy – just on a completely different scale. Energy efficiency has two main advantages for firms: by conserving resources they cut their running expenses and by combining technical and organisational aspects they increase their competitive strength helping to safeguard the future of their business. With this in mind, the managing directors of REMONDIS Production GmbH decided to introduce an energy management system in accordance with DIN EN ISO 50001 into their company. The certification process has now been successfully completed.



The reasons for taking a detailed look at the amount of energy used in the various processes were, on the one hand, the high energy consumption of REMONDIS Production's individual company divisions and, on the other hand, the changing legal conditions concerning tax refunds and tax relief. "Our high use of energy automatically gives us a role

model status within the REMONDIS group and we wish to live up to this by introducing an energy management system throughout our company," explained Frederic Krabbe, the energy management auditor responsible for this project at REMONDIS Production. What goals then are expected to be reached by introducing this new system? Whilst the



“Our high use of energy automatically gives us a role model status within the REMONDIS group and we wish to live up to this by introducing an energy management system throughout our company.” Frederic Krabbe, energy management auditor at REMONDIS Production

long-term aim of this increase in energy efficiency should further strengthen the competitiveness of the company, the medium-term target is for it to benefit from the tax incentives offered as a result of reducing energy consumption. Moreover, other advantages resulting from the introduction of the energy management system such as sustainability, the conservation of natural resources and preventing climate change are all fully in keeping with the company philosophy advocated by REMONDIS.

#### **Südharzer Gipswerk the first firm to receive accreditation**

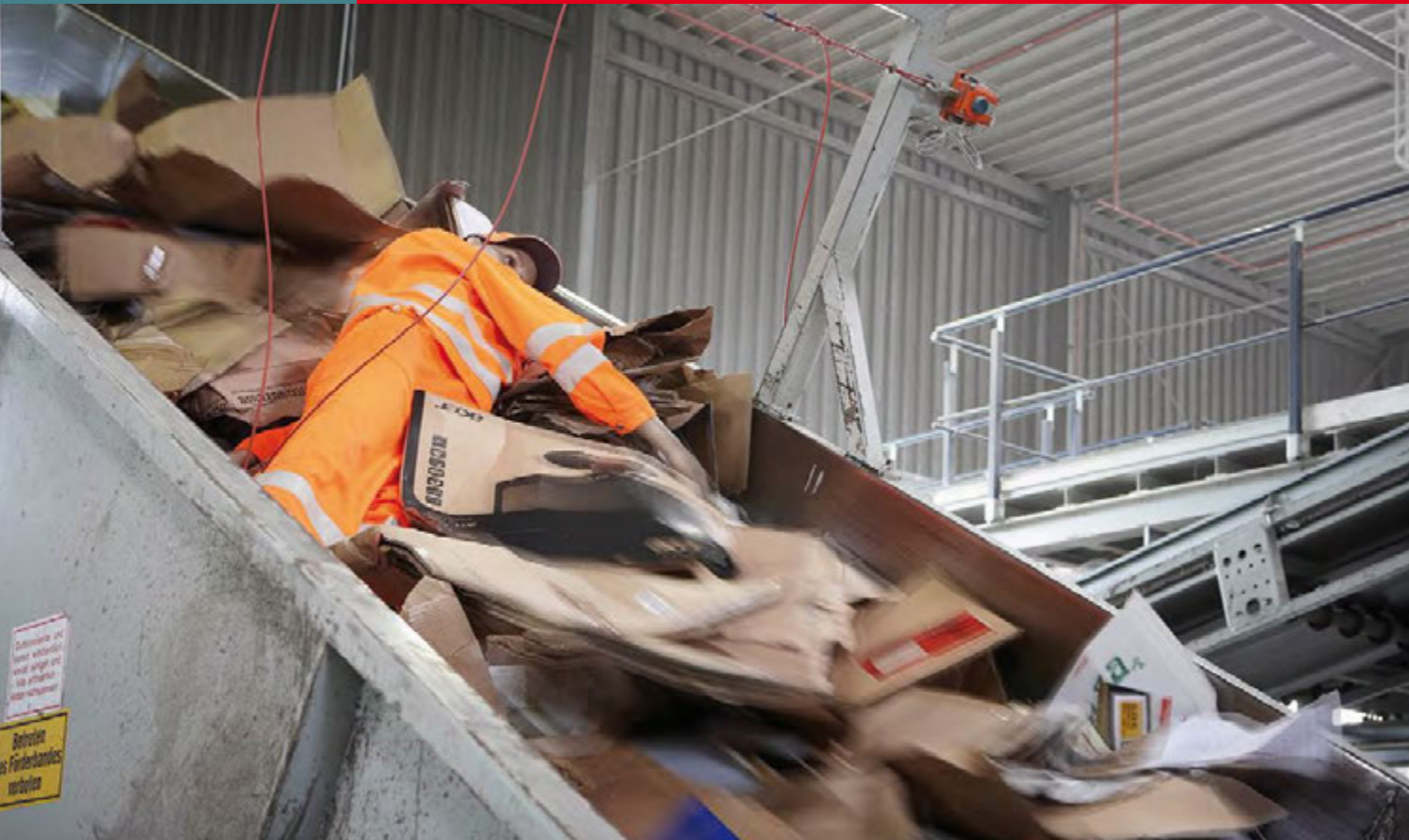
Südharzer Gipswerk GmbH, a fully owned subsidiary of REMONDIS Production, is one of the most energy-intensive companies within the group. SHG's four plants make products from gypsum and anhydrite for the construction sector and industrial businesses. SHG currently uses 17.8 GWh of electricity and 924 GWh of heating energy every year. This

corresponds with the annual amount of electricity used by approx. 4,000 four-person households as well as the annual energy consumption of around 4,000 detached homes. Under the leadership of Frederic Krabbe, SHG took the first steps to introduce the energy management system into its firm during the summer of last year. Andreas Hübner, head of technology at SHG, was responsible for implementing the standards into the operational side of the business in cooperation with TÜV Süd Industrieservice. The most important elements of the new system include developing energy key performance indicators, drawing up technical and organisational optimisation measures as well as making employees more aware of how to use energy more efficiently. Besides SHG, REMONDIS Plano has also successfully implemented the system and received its accreditation. Plans are for REMONDIS Production and REMONDIS Electrorecycling to have received their DIN EN ISO 50001 certificate by 2014.

It is important that all employees are made aware of how to use energy more efficiently

from left to right: Klaus Stracke, TÜV Süd Industrieservice, Rolf Golz, TÜV Süd, Andreas Hübner, technical manager SHG, Frederic Krabbe, energy management auditor REMONDIS Production





Environmental services

# Nothing's going to happen!

SAFETY IN THE RECYCLING SECTOR – REMONDIS IS SETTING THE STANDARDS

**REMONDIS®**

A quick comparison of the accident statistics of the transport, traffic and waste management sectors with the number of notifiable work accidents at REMONDIS shows that Germany's largest water and environmental service company has an excellent safety record. Indeed, the TQM statistics concerning the number of notifiable accidents at work per 1,000 employees reveal that REMONDIS has an unbeatable safety record with 63 percent fewer accidents than in the comparable sectors. However, this is not a reason to relax – not when the employees' health and safety are at stake. REMONDIS' own work safety department headed by Wolfgang Liese and Nadine Ehnes ensures that this never happens.

REMONDIS is not prepared to make concessions when it comes to safety

"Nothing's going to happen!" is a comment often made by people who have been working in their jobs for many years and who believe that accidents only happen to others. Routine can, however, be dangerous as workers can become less vigilant. One of the most important tasks of the work safety department is, therefore, to remind employees of the potential dangers of their job and so ensure they remain alert at all times. The department responsible for safety at REMONDIS, headed by Wolfgang Liese and Nadine Ehnes, coordinates both work safety and fire protection within the company. A further forty or so experts deal with work safety issues in the various regions and divisional companies.

The company is not prepared to make concessions when it comes to safety. Practically every year, a conference is held which is attended by all the REMONDIS safety experts where new projects are presented and new ideas discussed. In addition, a specialist work group led by Wolfgang Liese meets up to five times a year to talk about work health and safety measures as well as new laws.

To ensure that this department can work together effectively with the technical supervisors of the German employers' liability insurance associations, representatives of the associations are invited to attend both the meetings held by the

specialist work group and by the safety experts. This allows them to get direct answers to their questions about new laws as well as to find mutual solutions to any problems. Various measures have been held at REMONDIS to improve safety awareness. In 2009 and 2010, for example, special courses were organised for managerial staff entitled "Don't look away" which were held together with the employers' liability insurance association responsible for traffic.

This year, Nadine Ehnes has developed an in-house workshop, in which the safety officers are taught about company-specific safety measures in addition to the measures taught by the employers' liability insurance association. However, it is clear to everyone in these courses that work safety always depends on the quality of the protective gear available. For this reason, a catalogue has been put together over the last few years. This catalogue contains a list of the different types of protective gear for REMONDIS employees and can be used at any time to order high quality protective clothes such as safety shoes and special gloves. No risks are taken or expenses spared in this area either as, in extreme cases, the health and indeed the life of an employee may depend on the quality of the equipment used. All products are of a high quality, are free of chemical substances and, in accordance with the company's Corporate Compliance guidelines, have not been produced by children.

When it comes to work safety, "good" is never "good enough". In its attempt to further reduce the number of accidents at its company, REMONDIS has registered and analysed the accidents that have occurred over the last few

years to draw up further preventative measures that can be implemented throughout the regions. The most important factor in this equation is, however, the employees themselves. REMONDIS, therefore, instructs them regularly on general work safety issues to raise their awareness of potential hazards. The success of all these measures is clearly reflected by the company's excellent safety statistics.

**"People are always put first at REMONDIS which is why the subject of safety is given utmost priority."**

Wolfgang Liese, head of work safety at REMONDIS

#### **Fire protection is a part of the safety concept**

Fire protection is also an important part of the company's safety concept. In order to ensure that the fire safety measures in the individual businesses are kept at the best possible level, the company's safety department regularly assesses the fire risks at the various locations and assigns them to one of its 'risk categories'. An individual check list has been drawn up for each risk category each containing concrete fire protection measures that are obligatory for all REMONDIS businesses. Each year, Nadine Ehnes and Wolfgang Liese visit and assess around eighty businesses and, if necessary, determine what measures must be taken to improve fire safety. High quality fire detection technology, fire extinguishing systems and organisational fire safety measures in the branches and plants round off the safety concept. For, actively preventing fire is the best safety concept around. Here, too, REMONDIS is setting the standards for others.

The success of the measures is clearly reflected by REMONDIS' excellent safety statistics



News in brief

## Buchen awarded the "Brandenburg Apprenticeship Prize 2012"



People have been talking about the lack of specialist staff for a long time now. Indeed, as the demographic change continues, there are likely to be fewer and fewer highly qualified people looking for jobs. With this in mind, it is becoming ever more important for companies to offer high quality apprenticeship courses and ensure specialist staff stay with them over a long-term period. In October, Günter Baaske, Employment Minister for the German state of Brandenburg, presented eight companies with the "Brandenburg Apprenticeship Prize 2012" in recognition of their commitment to providing apprenticeship courses. One of this year's award winners was Buchen RaffinerieService GmbH.

This year, a total of 94 companies offering more than 120 different apprenticeship courses had applied to be considered for the award. The eight prize winners not only stood out from the others thanks to the excellent quality of their apprenticeship courses but also because they were highly committed to certain causes, for example, to supporting young people with a disability. The prize is based on an initiative introduced by the partners of the 'Brandenburg Training Consensus' in 2005 and 20,000 euros were made available by the European Social Fund and the Consensus partners to fund the event. The patron of the competition is Minister President Matthias Platzeck.

News in brief

## EURAWASSER repairs drinking water pump in Warnemünde

There has been a drinking water well in the Alter Strom district of Warnemünde for many years now. A total of 230,000 litres of water are extracted from the drinking water network here each year – the equivalent of the annual consumption of seven Rostock inhabitants. Ageing technology and damage caused by vandalism meant that this well had to be repaired recently and so EURAWASSER decided to install a brand new cast-iron pump. With the well being directly connected to the drinking water network, those living in and visiting Warnemünde can now use it to quench their thirst between April and November each year.

Indeed the "Lütt Pütt" (little well), as it is known, has become a real eye-catcher thanks to the bright colours and flowers that have been painted on it by the artist Mike Bauer from Rostock. It is impossible, of course, to prevent vandals from damaging it again in the future. "All we can do is call on everyone to keep a watchful eye on the pump," explained Gesine Strohmeyer, managing director at EURAWASSER Nord GmbH. EURAWASSER specialist, Rainer Bilkowski, and his team will also be keeping a continuous eye on the new pump to ensure the technology works correctly at all times. Moreover, they will also be carrying out regular tests to make sure the drinking water is always of the right quality.



## REMONDIS at the jobmesse® kiel

This year's jobmesse® kiel was held in the capital city of the German state of Schleswig-Holstein for fifth time now. The approx. 70 exhibitors, who took part in the job fair, came from a wide variety of sectors and were offering around 3,500 different opportunities for those looking to find employment, an apprenticeship, a further training course or a place at university in the region. REMONDIS GmbH & Co. KG, North Region, took part in the event for the first time presenting the different ways people could join the firm and discussing the career prospects of working for Germany's largest water and environmental service company.

The fair was officially opened by Torsten Albig, Minister President and Patron, as well as by Daniel von Hoenning, head of the Mercedes Benz branch on Daimlerstraße, where the event took place. The jobmesse® kiel gives applicants of all generations and qualifications the opportunity to meet those working in the HR departments in person and to learn about the different career options available to them.



"As far as we are concerned, the job fair was a great success. Many of the visitors had not realised just how extensive the range of services offered by our company group is and so, in the majority of cases, we were able to awaken their interest," commented Martin Melms, a commercial manager at REMONDIS GmbH & Co. KG, Region Nord.

Martin Melms, commercial manager at REMONDIS GmbH & Co. KG, Region Nord, and the HR team

## Visitors enthralled by "Night of Training" and crime fiction festival

Two major events took place at the Lippe Plant in Lünen on 28 September 2012. The first was the "Night of Training in Lünen" during which REMONDIS, Caterpillar, Aurubis and STEAG opened the gates to their plants between 6pm and 11pm. Around 800 visitors took part in the event surpassing all expectations. Both the young people visiting REMONDIS and their parents were able to watch demonstrations and take part in workshops as well as tour the Lippe Plant and talk to people about the various apprenticeship courses on offer and the future prospects of the water and recycling sector.

Whilst the "Night of Training" was being held on the premises of REMONDIS' subsidiary, UCL Umwelt Control Labor GmbH, the old "Lohnhalle" (former wages hall) – today the REMONDIS Group's head office – was the setting for a literary crime sensation. The event was part of Europe's largest international crime fiction festival "Mord am Hellweg"

(Murder on Hellweg) and the visitors were able to enjoy the exciting stories read by a number of award-winning German authors. The crime fiction fans, however, were not only enthralled by the exciting readings held at this great venue but also by the tour around Europe's largest industrial recycling centre that they went on before the event began.



Experiments were also on the programme for the "Night of Training"

REMONDIS' head office was the setting for a literary crime sensation

# Award-winning traineeship

**ABSOLVENTA AND LMU MÜNCHEN PRESENT REMONDIS WITH A CERTIFICATE IN RECOGNITION OF ITS TRAINEE PROGRAMME**

Demographic change is causing many companies to look ahead and think about the problem they may have to face in the future, namely how to find qualified staff. Hardly a day goes by without the media talking up the problem of the lack of specialist staff and depicting a nightmare scenario for Germany and its industrial base – already a real problem in some sectors and a looming threat in others. The only action that companies can take now to counteract the future scarcity of personnel is to invest in apprenticeships and training courses. REMONDIS trains young people including a large number of so-called 'high potentials' with its comprehensive trainee programme that targets the areas of its business that will offer both the trainees and the company the best long-term prospects. The members of REMONDIS' HR team responsible for this were recently presented with an award in recognition of this programme.

Companies must react to demographic change and find new ways of ensuring they have sufficient qualified personnel in the future

Together, the Absolventa job fair and the Ludwig Maximilian University in Munich present a certificate for "fair and career-oriented trainee programmes". REMONDIS Assets & Services received this award for its national operational trainee programme, which is held in the various regions, for its international trainee programme as well as for its commercial trainee programme in the area of accounting and controlling. This certificate is only presented to companies that can prove that they adhere to a catalogue of strict criteria. This includes setting up a trainee programme that is fundamental to promoting talent and succession and that is geared towards working together with the participants on a long-term basis.

As part of the trainee programme, the participants must carry out important tasks and take on responsibility whilst receiving support from experienced managers.

The trainees get to

see many different company divisions and must also take part in further training courses and seminars. Furthermore, the jury also took aspects such as the balance between the pay received and the length of the programme and the programme content and development targets into account as well as adherence to quality assurance measures. REMONDIS fulfils all of these in an exemplary manner and so was presented with the certificate at the "HRM Expo".

"We applied for this award because we wanted to give our trainee programmes a certain value and make the company more attractive for potential applicants," commented Vanessa Ina Mauthe, company lawyer responsible for international HR at REMONDIS. "Unfortunately, the term 'trainee' is not protected. This certificate, therefore, is a both seal of quality and a distinguishing feature separating us from other trainee programmes."



(from left to right) Matthias Ernst, co-managing director of absolvenat, together with Alexa Dirks and Vanessa Mauthe from REMONDIS' HR department



# > Impressions



Photo: Bernhardt Link

◀ (from left to right) Julia Behrendt, corporate development EURAWASSER, Hans-Peter Friedrich, Federal Minister of the Interior, Stefan Rößle, district administrator and chairman of KPV Bayern, and Peter Götz, national chairman of KPV, at the municipal congress in Nuremberg.

Heinrich Zölzer (6th from left), Jeroen Vincent (centre) and Dr Dirk Wittenberg (6th from right) welcoming our guests from Turkey



▲ (from left to right) Uwe Wiegand, managing director REMONDIS Environmental Services China, and Torsten Weber, managing director REMONDIS International, during a meeting with the party secretary of the City of Dalian, Tang Jun

Andreas Heldt (centre), REMONDIS Region East, Alexa Dierks (3rd from right), personnel specialist at REMONDIS, and the REMONDIS Group's new trainees during a visit to Berlin Airport

▲ Federal Minister of the Environment Peter Altmaier with Norbert Rethmann, Honorary Chairman of the Supervisory Board of the RETHMANN Group, and Ludger Rethmann, REMONDIS Board Chairman, during his visit to the Lippe Plant



▶ Irmgard and Norbert Rethmann welcome a Turkish delegation to their estate in Wamckow





2012



2019



2026



2033



2040



2047



2054



2061



2068



2075



2082



2089



2096



2104?

## No Tantalum – No Mobiles

It is very hard to imagine just one day without mobiles – let alone the whole future. And yet such a situation is not so far off: mobile phones need tantalum – an element which is expected to last for another 92 years. Rapid developments, however, mean demand is increasing all the time. REMONDIS is developing processes to recover this material. The highest levels of quality, worldwide. For a secure future. **German Qualität.**

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