

The REMONDIS Group magazine

# REMONDIS AKTUELL

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Megacities
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Safety first



A refinery turnaround in record time
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#### Dear Readers!

Many people in Europe could hardly believe the news when they woke up on 24 June to discover a slim majority of Britons had voted in favour of Brexit. Leading economists, politicians, business people, artists and scientists had repeatedly called for the UK to remain in the EU so that the problems of globalisation could be tackled together as one strong community. Their words were in vain; the majority of Britons decided that the best way forward was to take a step back towards the supposedly good old days of 'splendid isolation'. No-one at that time, however, could have anticipated that this was just a precursor of an even bigger political earthquake. On 08.11. American voters elected Donald Trump to be their next president. Never before had the country experienced such a populist movement and his comments do not bode well either for the global economy or for a peaceful co-existence between nations. Only time will tell whether or to what extent President Trump will try and change global economic and political structures. Only then will we be able to see what impact this will all have on Europe. However, no matter how much the new President tries to deny the very existence of climate change, there is one thing that is clear right now: the world's population will continue to grow and the challenges of meeting people's needs and tackling the planet's environmental problems will not become easier in the future. Our recommendation to Donald Trump, therefore, would be to take a look at the country of his ancestors - at Germany, where solutions are already being developed to create a sustainable supply of raw materials for the future.

Over 40 years ago, when the recycling sector was just beginning to find its feet in Germany (thanks also to the many contributions made by REMONDIS), there were approx. 3.5 billion people living on our planet. At that time, recycling was considered by many to be nothing more than a bit of a gimmick. The world had enough raw materials and plenty of space for storing waste — so why do more than we have to? The human race needed just under 100,000 years to reach 3.5 billion people. This figure has doubled within just 40 years! By 2050, it is expected to rise to 10 billion. The so-called Earth Overshoot Day, the date when humanity has exhausted nature's budget for the year, was even earlier this year: on 08 August. Since then, we have effectively been living as if we have a second planet to fall back on.

The recycling sector already offers solutions to these problems at a number of different levels: supplying raw materials, generating energy, protecting water supplies and the environment,



curbing global warming and even taking on social responsibilities. 14% of the raw materials used in Germany are supplied by the recycling industry, an important step to separating economic growth and the consumption of natural resources from one another. If our production processes are to be sustainable and affordable in the future, then all products and raw materials must be recovered and reused. For this to be possible, however, politicians around the world must drive this development and introduce ambitious laws to ensure it happens. We need higher recycling targets and mandatory ecodesign guidelines that force manufacturers to design their products so that they can be fully recycled once they reach the end of their useful life.

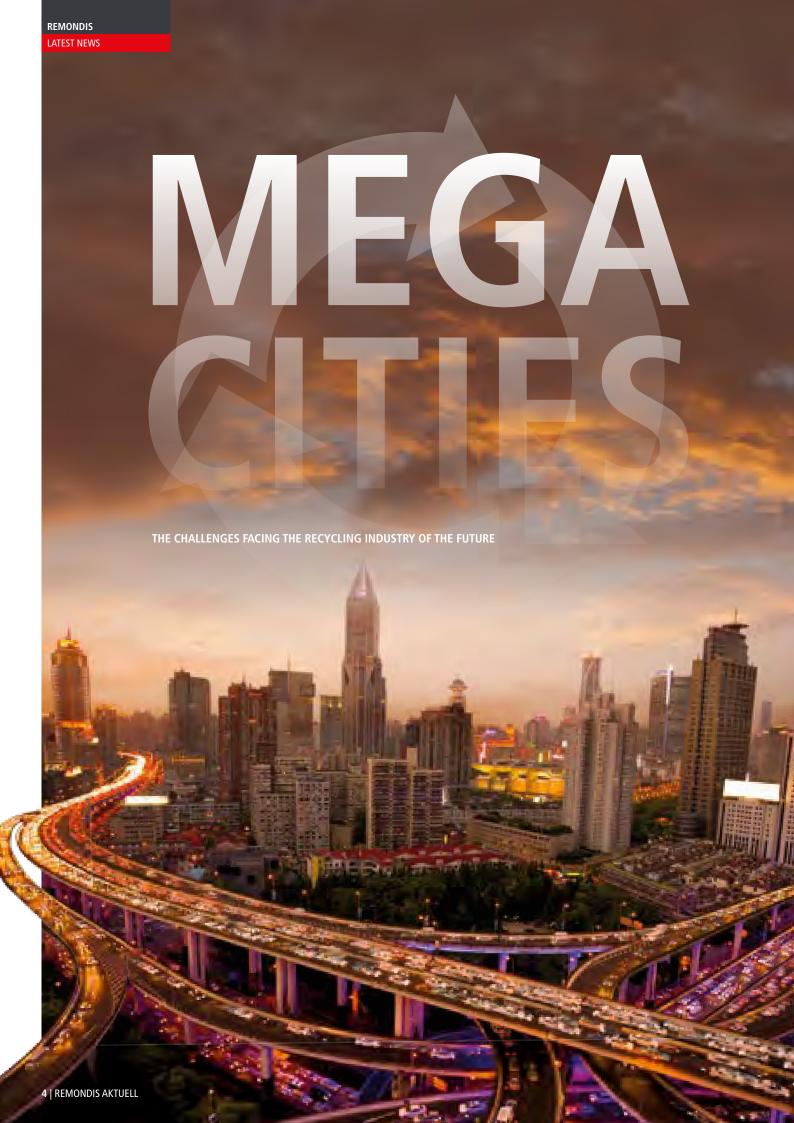
Recycling would be become mandatory in a future where all raw materials and products — no matter whether it be a smartphone, car or plane — must be designed in line with ecological criteria. Children working in mines in third world countries would be a thing of the past. Wars would no longer be fought to gain access to natural resources. Innovative processes would mean that our wastewater could be used to produce clean drinking water and as a source of phosphorus for fertilisers, building supplies and energy. Collecting and recycling organic waste around the globe and turning it into high quality compost or using it to generate renewable energy would, for the most part, solve the problem of climate change — and also provide great prospects for growth.

With this optimistic look into the future, may I wish you and your families a very Merry Christmas and a Happy New Year.

Yours

Ludger Rethmoun

Ludger Rethmann



The future began a good while ago. There are already 31 cities around the globe with more than 5 million inhabitants. New York City and its 8 million or so residents is practically a small town when compared to Shanghai and its population of 22.5 million – currently the largest city on our planet. There is, however, a very clear trend. Experts have estimated that the world's population will have risen to 10 billion by 2050 with up to 75% of all people living in so-called megacities. The human race will need 140 billion tonnes of raw materials every single year. If all biological waste and wastewater are added to all other types of rubbish, then around 6.5 billion tonnes of waste will be generated every day. This in itself will be a logistical challenge. The fact that three quarters of all energy produced will soon be consumed in megacities leads us inevitably to the question: will we really be able to cope?

Earth Overshoot Day was on 08 August this year. This is the day when humanity has exhausted nature's budget for the year. Since then, we have been using up resources that cannot be replenished – reminding us that Mother Earth cannot continue in this way. According to the calculations of the 'Global Footprint Network', an independent organisation of international scientists, 'Earth Overshoot Day' will be reached a little bit earlier each year. And that is hardly surprising looking at the exponential growth of the world's population. Over 40 years ago, when the recycling sector was just beginning to find its feet in Germany (thanks also to the many contributions made by REMONDIS), there were approx. 3.5 billion people living on our planet. At that time, recycling was considered by many to be nothing more than a cute idea for environmental do-gooders. The world had enough raw materials and plenty of space for storing waste – so why do more than we have to? The human race needed just under 100,000 years to reach 3.5 billion people. This figure has doubled within just 40 years! We have reached a crossroads and we can no longer close our eyes to it. The maths is simple: even if per capita consumption were to be moderately reduced – a very optimistic wish in itself – our primary sources of materials would still not be able to satisfy our needs.

Let us take a look at a few facts & figures: Raw material consumption lay at around 10 billion tonnes in 1900 and at "just" 30 billion tonnes in 1975. Today, this figure has already shot up to 70 billion tonnes. Per capita consumption differs hugely around the world. Not surprisingly, the biggest consumers can be found in the west in the industrialised nations, followed by the emerging countries in Asia.

Other densely populated countries, however, are just beginning to increase their living standards and consumption as they seek to catch up with us. Whilst today – statistically – every person living in Germany consumes approx. 22 tonnes of raw materials per year and in China around 12 tonnes, consumption in India lies at just 4 tonnes per capita, with this figure rising rapidly. In contrast, those living in Malawi, one of the world's poorest nations, consume a mere 0.3 tonnes. As prosperity in Asia, Africa and Latin America continues to grow and as the world's population continues to increase, it is inevitable that more raw materials will be consumed – both universally and per person. Where, though, are these raw materials to come from?

"The European Commission must do more to promote the durability, reparability and recyclability of products."

Federal Environmental Minister Barbara Hendricks





The answer to this question can be found in the very place where the environmental and supply problems are – in every sense of the word – piling up: in the megacities themselves. These cities of the future must become their own source of raw materials. This is easier said than done of course. Putting ideas into practice is becoming more and more difficult with the often precarious living conditions in these gigantic builtup areas and a population density of over 2,000 inhabitants per square kilometre. Intelligent and sustainable systems are needed to combat the permanently congested traffic infrastructure, the lack of decent living space, the air and environmental pollution, the social conflicts and the high crime rates resulting from this. Recycling is key to overcoming these challenges. REMONDIS and the German recycling industry began developing practicable concepts for the cities of the future over two decades ago – brought about by the modernisation of whole urban districts such as those in Berlin or by the renovation of large hospitals right across the country.

New recycling and logistics solutions were found to meet the special needs of these places, solutions that are also perfect for megacities. Looking at the congested traffic and densely populated residential and business districts in major cities and at the specific applications required by large-scale buildings, such as hospitals, there can be only one answer: to go below ground. Specially equipped floors can be built below

the building — or below the megacity — that are dedicated to recycling, where separate bins and automated transport systems can be used to handle the pre-sorted waste in accordance with the most stringent fire and noise pollution regulations. Ideally, the waste would be sorted again in situ and — if the concept is thought through to the end — processed into recycled materials on site in underground recycling plants. Special vehicles or transport systems would then take the perfectly sorted raw materials to recycling facilities or production plants far away from the city. Both the entrances to and the exits from this new world of underground recycling would be outside the megacities to avoid clogging up the traffic even further.

There will be no room for production plants in the megacities of the future. These businesses will be forced to relocate to the surrounding regions which will also help to reduce air pollution and traffic congestion in the towns. The result is closed raw material cycles: old products will go straight from the buildings to the underground sorting and recycling plants via transport systems and lifts; from there the recovered raw materials will be transported to the production plants via underground roads, conveyor belts and pipelines where they will be turned into new products and returned to the people, for example using drones. By then, they will have turned full circle and the whole process will start again. But will it really be so easy?

### A prerequisite: farsighted project planning and rigorous eco-designs

If this recycling concept for future megacities is to be a success, then it is essential that the recycling industry is involved in the project planning. In Asia, for example, new megacities are being built from scratch — for the most part on undeveloped land. Ideally, the waste management systems should be an integral part of the overall concept and right from the very moment the planning phase starts. Converting buildings at a later date is as time-consuming and as expensive as building a new underground metro system in an old city.

Having said all that, however, no matter how good the recycling system may be, it cannot help if the products are not recyclable. Tough ecodesign guidelines need to be introduced around the world that make it mandatory for all producers – whether they make smartphones, household goods, cars or planes – to design their goods so that they can be fully recycled and all raw materials recovered and reused. REMONDIS has been calling for such ecodesign guidelines to be set up in Germany for many years now. The Federal Minister for the Environment would appear to have finally woken up to this fact as well. At the beginning of November 2016, Federal Environmental Minister Barbara Hendricks spoke in favour of compulsory Europe-wide resource efficiency targets. "The European Commission must do more to promote the durability, reparability and recyclability of products," she said when she opened the 3rd European Resource Forum (ERF) in Berlin. "Ecodesign guidelines can provide us with a powerful tool and enable us to prescribe minimum durability dates for certain wear and tear parts." Moreover, it is, she continued, important for products to have modular systems and for spare parts to be available on a long-term basis "so that electronic devices do not end up as disposable goods". Around 400 people from the worlds of politics, business and science attended the 3rd European Resource Forum to discuss how our planet's natural resources can be used more sustainably. The German government wishes to separate economic growth and the consumption of natural resources from one another. REMONDIS would like to go a step further. The family-run company is calling for an eco-efficiency label to be introduced – with a bar graph similar to the labels used to show the energy consumption of new electrical devices – so that consumers can see whether or to what extent the product can be recycled. This would be a further incentive for manufacturers to ensure that they use raw materials

efficiently and that their products are environmentally friendly – something they could then use to give their business a competitive edge.

If resource efficiency were to be increased to such high levels, then the megacities would effectively become their own mines and could supply themselves with the raw materials they need. What's more, the water and recycling sectors could help contribute towards energy supply, for example through capturing and re-using heat as well as recovering raw materials and generating energy from sewage. Various pilot projects in Germany have shown that shops, businesses and public institutions could cover their heating requirements from the sewers under their city. The reason: the temperature in the sewers is the same all year round. According to the Fraunhofer Institute for Building Physics, these are the best possible conditions for creating a sustainable supply of heat. Wastewater from showers, kitchens and toilets remains at a temperature of between 12°C and 15°C even in the dead of winter. Long heat exchangers will be installed in sewer networks to make the most of this energy. They will capture the heat from the wastewater and then transfer it to a separate water cycle which is attached to an electricity powered heat pump. This is, in fact, an ideal system for the megacities of the future as this concept is only viable for large-scale projects or for buildings which need a lot of heat.

Concepts for sustainable and carbon-neutral cities with closed energy and recycling cycles already exist. As urbanisation continues its inevitable course, we must stop acting as if we have two planets to supply us with the materials we need. We only have our one planet and it is essential that we conserve our natural resources for future generations. Having a smart and all-encompassing recycling industry would be an effective way of doing this.

Two solutions: closed raw material cycles and wastewater as a source of heat

Raw material consumption lay at around 10 billion tonnes in 1900 and at "just" 30 billion tonnes in 1975. Today, this figure has already shot up to 70 billion tonnes 10 billion tonnes 1975 30 billion tonnes 0 billio tonnes REMONDIS AKTUELL | 7

# It's all about the design!

CRADLE-TO-CRADLE® DESIGN CONCEPT FOR THE MATERIAL CYCLES OF THE FUTURE – IN MEGACITIES AS WELL







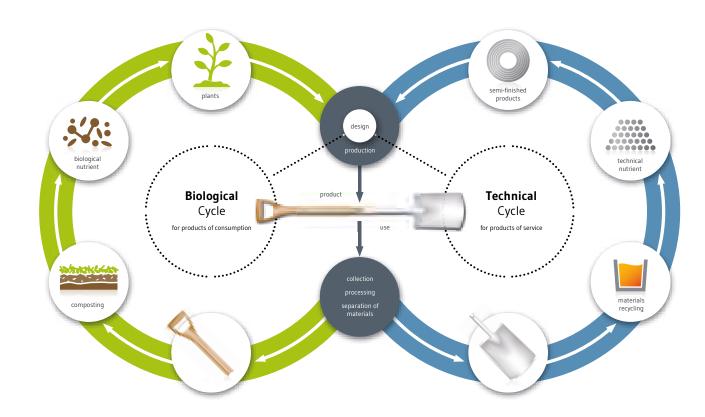


C2C has reached the NRW
Ministry for Economic Affairs:
read the study looking at
how C2C can be adopted
into NRW's economy (on
which REMONDIS was also
consulted) here

The idea of being able to recycle products endlessly with absolutely no loss in quality is as inconceivable to some people today as megacities were just a few decades ago. What many may believe is just wishful thinking has already been turned into a scientifically robust concept by the chemist and visionary, Professor Michael Braungart: the Cradle to Cradle® design concept (C2C). Looking at the limited supplies of natural reserves our planet has to offer, we will have no choice but to adopt this idea and ensure that absolutely all materials are recycled and reused.

According to Professor Braungart, all goods should circulate in one of two possible cycles in the future – either in a biological or a technical cycle. The result would be a society that produces absolutely no waste and that can live off the nutrients and materials available to them on a permanent basis. For this to be possible, however, each and every product must be designed so that it is fully recyclable. The Cradle to Cradle® concept is being implemented by the EPEA, a research institute that has also been advising REMONDIS for many years now. Whilst, at first glance, the overall objective of C2C – i.e. to create a world without waste – may appear to be at odds with REMONDIS' business model, it does in fact support the efforts being made by the recycling industry to encourage firms to manufacture products that are fully recyclable. The collaboration work between the EPEA and REMONDIS aims to improve processes, technologies and services so that they reflect a holistic approach to recycling.

This year, for example, the EPEA examined the way REMONDIS recycles commercial food waste to make new products and generate energy to see whether the systems being used meet its strict criteria and reflect the C2C quality standards. All of the organic waste collected by REMONDIS has been separated from other types of waste so that it can be sent for recycling. The valuable nutrients, therefore, can be recovered and reused – which is precisely what C2C is all about. By being used to produce biogas, fertiliser and biodiesel, they are returned to the biological cycle in line with the C2C principle. Over 98% of the organic material processed by REMONDIS is transformed into new top quality products. In its certificate, the EPEA underlines the fact that "this recycling system is making a valuable contribution towards achieving an integral C2C resource economy". REMONDIS' food waste recycling system was the first of its business areas to be checked by the EPEA.



# Business prize awarded to Norbert Rethmann

ENTREPRENEURS ASSOCIATION PRAISES NORBERT RETHMANN'S EXTRAORDINARY COMMITMENT

Norbert Rethmann was presented with the 'Großer Preis der Wirtschaft' business award by the 'Unternehmerverband Norddeutschland Mecklenburg-Schwerin e.V.' [North German Entrepreneurs Association Mecklenburg-Schwerin] on 13 October. The awards ceremony took place at the historical Schleswig-Holstein-Haus in Schwerin during a reception put on by the 'Förderverein Welterbe Schwerin e.V.' [Friends of the World Heritage Site Schwerin] and the Lord Mayor of Schwerin Angelika Gramkow.

In this special setting, Norbert Rethmann was honoured for his extraordinary entrepreneurial skills as well as for uniting entrepreneurial success with social responsibility. He was awarded this prize for his outstanding achievements – for transforming his father's firm with a workforce of 28 employees into the RETHMANN Group and its three divisions, REMONDIS, Rhenus and SARIA, within just 40 years. Together, these three companies currently employ 66,000 people all around the globe.

In his speech, the president of the Entrepreneurs Association, Rolf Paukstat, praised Norbert Rethmann describing to the many guests from the worlds of business, politics and administration how, despite the pressures of running his own company, he had taken on social responsibility very early on. He continued his good work in the 90s when he moved home to live in Mecklenburg-Vorpommern. Here, Norbert Rethmann helped to develop rural infrastructure as well as to rebuild and modernise a large number of buildings and other important structures. His hands-on attitude and his close ties to the community were reflected in the ten years he held the position of honorary mayor in the small district of Kobrow near Sternberg in the west of Mecklenburg.

"Mr Rethmann's level of dedication towards the community has been extremely impressive with him taking over cultural and social responsibility."

Rolf Paukstat, President of 'Unternehmerverband Norddeutschland Mecklenburg-Schwerin e.V.'

Mr Rethmann's level of dedication towards the community had, the Entrepreneurs Association pointed out, been extremely impressive with him taking over cultural and social responsibility as well as promoting the economy in the west of Mecklenburg-Vorpommern. This all made him a most worthy winner of the 'Großer Preis der Wirtschaft' business award. Norbert Rethmann's current role as chairman of the 'Förderverein Welterbe Schwerin e.V.' shows that there are still many tasks that he is happy to take on to support his local community.

Rolf Paukstat, President of 'Unternehmerverband Norddeutschland Mecklenburg-Schwerin e.V.' (left), and his deputy, Detlef Els (right,) handing over the award to Norbert Rethmann, Honorary Chairman of the Supervisory Board of the RETHMANN Group



# BDE appeals to Environmental Minister

REJECTION OF HIGHER RECYCLING TARGETS CRITICISED BY THE WHOLE OF THE RECYCLING SECTOR

The BDE (Federal Association of the German Waste Management Industry) has made it very clear that it disagrees with the German government's decision – made public in September – to try and prevent recycling targets being increased.

The BDE believes the whole idea of a European recycling sector may be put at risk if recycling targets are not raised very soon

An internal paper released on 12 September has revealed that the German government would like European recycling rates to be calculated using a completely new methodology. Moreover, the German government has suggested in its letter that the EU should not set the recycling targets for 2030 until initial data has been gathered using this new method of calculation. Such results would not be available until three years after the introduction of the new method. With the negotiations on the Commission's original suggestion drawing to an end, this rejection came as a great

surprise for the whole of the recycling sector. The Commission's proposal to standardise the way recycling rates are calculated in the different member states has been on the table for two years now. And things had been looking good up until then. Indeed, it was the Federal minister of the environment who called on the Commission not to lower recycling targets after the first Circular Economy Package was withdrawn. According to the BDE, the German government's new suggestion is putting the whole idea of a future-oriented European recycling sector at risk. "It gives the impression that the German government does not want an agreement to be reached quickly or the targets to be increased," commented BDE President, Peter Kurth.



In his own letter, BDE President Peter Kurth has asked the Federal Minister for the Environment Barbara Hendricks to withdraw the German government's proposal. At the same time, he has called on all the state ministers for the environment to support him in his endeavour, especially as the German Advisory Council on the Environment had said it was in favour of the suggested targets back in February. Peter Kurth suspects that the reason behind the German government's surprise move is that the Ministry of the Environment is worried the country will be unable to meet the proposed targets. The BDE believes, however, that such worries are unfounded. "Even if German recycling rates did fall to begin with, this would provide an incentive to step up the efforts to improve recycling processes across the country. It won't be difficult to reach the 2030 target of 65%." This would also send out a clear signal to the new member states that separate collection schemes must be set up in their countries and that more money must be invested in recycling and "The faster a political decision is reached, the faster decisions can be made about new investment projects." Peter Kurth, BDE President

Setting a recycling target of

incineration plants over the medium to long term.

Most of those in Brussels have responded to the German government's suggestion with incomprehension and criticism. In fact, the Environment Committee is even considering voting for the recycling target to be increased when it is put to the vote in January. One thing is certain: agreement about this must be reached soon as this will lead to more money being invested in recycling processes in Germany and across Europe. "The faster a political decision is reached, the faster decisions can be made about new investment projects," explained Peter Kurth.



# MVK wins environmental business award

UNITING WASTE DISPOSAL, ENERGY EFFICIENCY & ENVIRONMENTAL PROTECTION IN THE BEST POSSIBLE WAY

The waste incineration plant, Müllverbrennung Kiel GmbH & Co. KG, had a cause for celebration in October. It was presented with the 'Umweltpreis der Wirtschaft' (an environmental business award) by StFG, an association promoting education, business and culture in the German state of Schleswig-Holstein. This highly coveted award was handed over to the company during a ceremony held in Kiel Castle on 10 October.



The energy generated by the waste incineration processes covers

**20**%

of the district heat needed in Kiel and supplies electricity to around



This year's environmental prize was awarded to Müllverbrennung Kiel GmbH & Co. KG, a joint venture between the City of Kiel and REMONDIS GmbH und Co. KG, in recognition of the safe and environmentally sound processes it uses to dispose of around 140,000 tonnes of household and commercial waste each year and of the reliable services it provides the approx. 500,000 local inhabitants. Presented for the very first time in 1984, this award reflects just how important the subject of environmental protection is for companies located in the state of Schleswig-Holstein. "MVK's focus is always on finding effective and innovative ways to protect the environment," explained Dr Frank Ehlers, managing director of MVK. Uli Wachholz, chairman of StFG (Studien- und Fördergesellschaft der Schleswig-holsteinischen Wirtschaft) handed over the bronze plaque, designed and made by Georg Engst, and the certificate during the awards ceremony at Kiel Castle.

MVK uses residual waste to produce valuable reusable materials such as IBA, metals, gypsum and acids as well as to generate district heat and electricity – and achieves extremely high energy efficiency levels (72%). The waste incineration plant in Kiel is, therefore, one of the waste-to-energy plants in Germany with the lowest emission levels. "Indeed, 50% of MVK is effectively a biomass-fired plant," commented Dr Frank Ehlers. All this means that MVK is making an important contribution towards helping Kiel reach its environmental targets: the energy generated by the waste incineration processes covers 20% of the district heat needed in Kiel and supplies electricity to around 10,000 house-holds – with more than half of this being carbon-neutral.

"We have succeeded in achieving MVK's comparatively high energy efficiency levels by continuously developing and improving the plant," the managing director of MVK continued. The company has invested around 2 million euros in new technology over the last few years. Since it was commissioned, gas consumption has been reduced by 8,500 MWh/ year, the equivalent of the annual amount of heat required by 500 households. "We have, therefore, substituted natural gas, a fossil fuel, with energy from residual materials. This is clearly helping to improve the city's carbon footprint," commented Dr Frank Ehlers.

Both household and commercial waste contain substances that may pose a risk to the environment. The furnace is, therefore, operated at a very high temperature to ensure all pollutants are destroyed. The six-step flue gas cleaning system then removes any remaining environmentally hazardous substances. "MVK helps reduce the volumes of contaminants, removing organic pollutants and heavy metals," Dr Ehlers stressed, pointing out a further important aspect of how the thermal treatment of waste can actively help to curb global warming. If the waste in Kiel were to be sent to landfill, as was the case in the past, then the materials would generate methane, a greenhouse gas that has a huge impact on our climate. This can be avoided by thermally treating waste. The by-products from this treatment can also be reused in a variety of ways - IBA for building roads, metals for recycling, gypsum for the construction industry and filter dust for back-filling mines – ensuring that the household and commercial waste generated in and around Kiel is recycled to protect the environment.





In its latest video, MV Kiel presents both its business and its award-winning measures to protect the environment

Presented with the environmental business prize for the state of Schleswig-Holstein: MVK Managing Director, Dr Frank Ehlers (centre), accepting the prize together with Wolfgang Steen (REMONDIS Nord), Lord Mayor of Kiel Dr Ulf Kämpfer, Sabine Schirdewahn, Plant Manager of Eigenbetrieb-Beteiligungen (owned by the City of Kiel), and Rüdiger Karschau, Chairman of MVK's Supervisory Board





## Recycling: a versatile sector with a bright future

REMONDIS WELCOMES HUNDREDS OF YOUNG PEOPLE TO THE "LÜNEN APPRENTICESHIP EVENING"

Seven Lünen-based companies kept their doors open until 11pm on 23 September to welcome young people to their businesses. This "Apprenticeship Evening", an annual event, provides the visitors with an opportunity to take a closer look at what the companies have to offer in a relaxed atmosphere. REMONDIS took part as always to present some of the professions offered by the recycling sector to all those visiting its Lippe Plant.



This year, REMONDIS set up a number of information booths to showcase twelve different apprenticeships. What became apparent to everyone was just what a promising future the recycling sector has to offer and just how diverse it is – with the professions varying from professional truck driver and plant operator, to chemical laboratory assistant (with the Umwelt Control Labor specialists putting on some spectacular experiments), all the way through to commercial apprenticeships and higher apprenticeships (apprenticeship + BA/BSc course). The young people, most of who will soon be leaving school, had the opportunity to talk to REMONDIS' trainers as well as to find out more from those currently doing an apprenticeship at the company.

Many of the 500+ visitors had brought their CV with them and REMONDIS' HR experts were on hand to give them some valuable tips on how best to present their qualifications and documents. Moreover, they were even able to try out the complex recruitment tests for the various apprenticeships. An entertainment programme was also organised alongside all this important theory with, for example, the REMONDIS Recycling Professionals putting on their show and the ever popular garbage truck simulator. Those with a head for heights were given the opportunity to go to the top of a scaffold tower - erected by the specialists working at REMONDIS' subsidiary XERVON - to view the illuminated Lippe Plant from up high.

Everyone agreed that the evening was a great success. "There was a whole range of different people here this evening. It was great to see that young people are interested in doing an apprenticeship at REMONDIS, no matter what type of secondary school they go to. Those that do eventually decide to carve out a career for themselves in one of these many possible professions will not only have great job prospects but will also be helping to drive sustainability and protect the environment," commented Kristina Rehahn, a personnel officer at REMONDIS. She very much hopes to see their faces again on the cover pages of the applications being sent to the company.

# Happy Birthday, NRW!

### AWISTA AND THE RECYCLING PROFESSIONALS JOIN NRW'S 70TH ANNIVERSARY CELEBRATIONS

The largest open air festival ever to be held in the German state of North Rhine-Westphalia (NRW) took place in Düsseldorf, the state's capital city, along the bank of the Rhine during the last weekend in August. Covering 56,000 square metres and lasting three days, this public event had been organised to celebrate NRW's 70th birthday and was officially opened by Minister President Hannelore Kraft and Thomas Geisel, Lord Mayor of Düsseldorf, on the Friday evening.



A vibrant programme of events was on offer on both the Saturday (until 11pm) and the Sunday (until 7pm) for all those visiting the festival. A whole variety of stands and tents had been set up along the Rhine to celebrate the state's 70th birthday – run by state and local institutions as well as clubs, associations, companies and organisations from a wide range of areas and from right across North Rhine-Westphalia.

Collaborating with AWISTA - der Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH, REMONDIS also travelled to the event with its RECYCLING PROFESSIONALS. Having set up their tent, the REMONDIS RECYCLING PROFESSIONALS continued their 'mission to save our planet's raw materials' providing an at-

tractive and highly popular two-day programme for children, families and anyone else interested in learning more about the environment and recycling. With its entertaining mixture of games, creative workshops and infotainment, the team of experienced teaching specialists showed which recyclables belong in which bin and explained why it is so important to separate waste materials from one another. The RECYCLING PROFESSIONALS made the visitors — both young and old — more aware of these subjects by giving them creative tasks to do, puzzles to solve and organising games. Not only the children were able to find out why separating waste is so important but adults were also given the opportunity to ask any questions they had about raw material shortages and recycling.





# Composite insulation boards – a blessing and a curse

A CHANGE IN THE LAW HAS TURNED A WELL-INTENTIONED ECO-FRIENDLY IDEA INTO HAZARDOUS WASTE

Once Germany's energy transition (i.e. changing its energy supply from fossils to renewables) really got going, it soon became very clear that the country's climate goals could not be reached simply by installing wind turbines and solar cells. Too much energy was being wasted as a result of heat escaping through poorly insulated walls. This led to an initiative being introduced to have as many outer walls as possible insulated with composite insulation boards made of pre-treated polystyrene. Now, many years later, the first of these buildings are being renovated. And yet, within a very short space of time, a change in the law to adopt European waste legislation has turned this material – previously classified as unproblematic mixed construction waste – into hazardous waste. It was almost impossible to find the transport needed to remove the material at such short notice; suitable storage space was nowhere to be found. The result: this waste began piling up at the construction companies. REMONDIS also received many calls from such businesses asking for help.



The current bottlenecks at the incineration plants have made it even more difficult to incinerate treated insulation material



An overview of these special regulations can be found here: https://bde.de/assets/public/ Dokumente/Abfallbehandlung/Laenderregelungen.pdf

In the past, insulation material treated with hexabromocyclododecane (HBCDD) - not to be confused with harmless polystyrene packaging – did not need to be collected separately from other types of waste. It fell into the category of 'mixed construction waste' and could be thrown into the skips at the building sites with the other types of construction waste. The Commission Regulation (EU) 2016/460 of 30.03.2016 amending Annexes IV and V to the POPs regulation came into force on 30.09.2016. HBCDD with a concentration limit of 1,000 mg/kg has been added to the list which means that it is now considered to be hazardous waste in Germany (as stipulated in the German Waste Catalogue Ordinance) and must be collected separately. Austria, however, has shown that such changes to the law are actually not necessary. There, the material may continue to be incinerated in waste incineration plants together with non-hazardous waste. The country had previously carried out large-scale tests that proved that co-incinerating polystyrene containing HBCDD did not have a negative impact on the environment whatsoever. The flame retardant HBCDD was

completely destroyed. HBCDD was used as a flame retardant by the insulation industry for many years and is in practically all of the insulation materials currently found in buildings across the country. The fact that this material has such a high calorific value also means that incineration plants are unable to treat it in 'mono-batches' – further aggravating the problem of how to dispose of it.

REMONDIS has been standing by its customers and is holding intensive discussions with the authorities and ministries to find a solution to this problem as quickly as possible. This change to the law, however, has meant that it has not always been possible to collect all of this waste material. In the meantime, the states have passed their own individual regulations to relieve the current unsatisfactory situation.

This problem has not been caused by the recycling industry but by a change to the German Waste Catalogue Ordinance passed by the Bundesrat (upper house of the German parliament). The Federal Ministry for the Environment had informed the upper house – which comprises representatives of all German states – well in advance that this decision would lead to waste disposal 'bottlenecks'. These warnings were ignored. The current situation has eased a bit as a result of the states passing their own regulations. It is, however, essential that the legislator comes up with a single solution that is valid for the whole the country – a solution that is similar to that in Austria that lowers the hazard level and allows it to be incinerated with other types of waste. The recycling sector is assuming that this will lead to a compromise that is acceptable for all Federal states and thus ensure there is once again a trouble-free system in place to collect and treat this material.



SASE gGmbH officially presented the 3rd volume of its self-published series of books on urban environmental protection at this year's IFAT, the world's leading trade fair for water, sewage, waste and raw materials management.

Entitled 'Entsorgungssicherheit und Kreislaufwirtschaft' [Reliable waste management & the recycling sector], volume three of SASE's series of publications looks at the period between 1975 and 2000. Focus here is on the successful efforts made by private sector waste management companies to set up reliable waste management services as well as to create a recycling industry – something that was being called for by politicians and society as a whole.

Contributions made by a number of well-known authors, who themselves played a decisive role in shaping the waste management sector during these 20 to 30 years, allow the readers to gain an insight into how the recycling industry was set up and developed. Moreover, people from within the industry provide interesting details on the importance of legislation and how the laws impacted on the whole of the recycling sector.

Previously unpublished material – such as the development of town cleaning services in East Berlin from 1945 to the reunification of Germany, the history of the hazardous waste disposal plant in Bramsche-Achmer or on the role of the BDE and the entrepreneurs shaping this association such as Gustav-Dieter Edelhoff and Norbert Rethmann - help to

shed light on the current situation faced by private and public sector waste management businesses.

Together, SASE's series of publications on urban environmental protection (currently comprising three volumes) documents the activities of the whole of the waste management sector between 1900 and 2000 - from the towns developing their city cleaning activities, to the setting up of a waste management industry, all the way through to the creation of a recycling sector. The SASE publications aim to provide a summary of the waste management and recycling sectors, showing how they have developed over the years. The many illustrations help readers to visualise this development.

The books are being sold to help fund SASE's non-profit work in the area of environmental education.



A must-read for all those working in the recycling sector: Volume 3 of SASE's series of publication is now on sale



The book, which costs 33 euros, can be ordered online at http://dev-sa0109.die-webdesigner-dortmund.de/ publikationen/

# International Management Meeting looks at the future

TECHNOLOGY AND LOGISTICS: ESSENTIAL FOR THE CITIES OF THE FUTURE

REMONDIS' International Management Meeting was held in Cologne this year from 04 to 06 October. REMONDIS board member, Egbert Tölle, welcomed 70 managers from all around the world to the event. This three-day conference was used to present the company's latest results, to explain the group's global strategy as well as to discuss the possibility of expanding into new international markets.

This annual management meeting is also extremely important as it enables the managing directors from the company's many different international subsidiaries to discuss business with one another — something that is becoming increasingly necessary with the group's international activities expanding so rapidly. Over the three days in Cologne, therefore, they exchanged experiences, presented their successful concepts and developed ideas for improving their own business operations. Moreover, an impressive supporting programme had been organised that focused on the 'cities of the future' this year.

Prominent speakers from the technology and logistics sectors had been invited to attend the event including Pedro Miranda, corporate vice president responsible for SIEMENS One, Dr Johannes F. Kirchhoff, managing partner of the Kirchhoff Group, and Dr Armin Vogel, managing director of SSI Schäfer. In their talks, they presented the way their companies believed urban areas would develop over the coming years. Besides portraying their industry-specific visions of future megacities, they also took a look at the general challenges and opportunities that such developments will entail. Many of the guests felt that their predictions of how







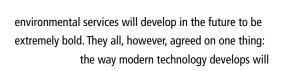










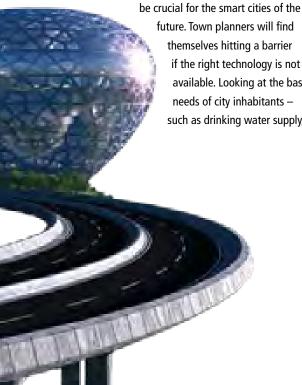


future. Town planners will find themselves hitting a barrier if the right technology is not available. Looking at the basic needs of city inhabitants such as drinking water supply,

transport and practical waste management systems then developing state-of-the-art technology is a must if the environmental sector is to function effectively.

At the end of the three days, the international managers taking part in this year's REMONDIS Management Meeting were able to return to their homelands with the many new and inspirational ideas discussed in the historical city of Cologne.

REMONDIS' international managers were joined by prominent speakers from the technology and logistics sectors







"Hazardous waste is waste we want nothing to do with," says the one group. "Handling hazardous waste is what makes our work so interesting," says the other. In this case, 'the other' is the team of employees at REMONDIS' business in Bramsche, the company's central location for dealing with waste classified as particularly hazardous. The Bramsche Industrial Recycling Centre is one of the leading plants across the whole of Europe for recycling industrial waste. 600 different types of industrial waste can be treated there – whether it be solid, semi-solid, liquid or gaseous, whether it pose a minor or a major risk.



Each year,

### **80,000** tonnes

of hazardous materials are recycled in Bramsche so that they can be returned to production cycles as raw materials

Stringent safety standards must be in place when dealing with explosive, inflammable and toxic materials on a daily basis. Prevention is the ultimate goal here. Samples are taken before any waste is treated so they can be tested in the on-site laboratory to identify the exact properties of the material. The treatment processes in the various plants may not begin until this has been completed – with all stages being continuously monitored by technical safety systems. The site is also home to a high stack storage area made inert with nitrogen and a secure gas storage facility to eliminate any risks whilst the waste is being stored before treatment. Special biofilters and a range of systems to protect the soil and water networks ensure the environment is never put at risk either. Moreover, the plant has its own fire brigade and a full range of fire and rescue equipment to guarantee the highest standards of safety are met at all times.

High performance conditioning facilities are needed to recycle hazardous waste safely. Such technology cuts up the material, homogenises it and mixes it – all in fully separate processes. Materials that are particularly problematic are treated in areas that have been made inert with nitrogen. This is certainly one of the more challenging areas of the recycling sector and specialist knowledge is vital. Many of the 150 people working at the centre in Bramsche – such as the chemical laboratory assistants – have been trained by the company itself. "By taking on and training our own apprentices, we can ensure that we continue to offer safe and top quality services," explained branch manager, Christian Deing.

Over the years, Bramsche has also developed and set up four specialist divisions known as RESPRAY, RENOX, RENO-THERM and RENOMETALL. No matter what the work, priority is always put on recycling the waste - as, at REMONDIS, the treatment of hazardous materials is always designed so that they can be returned to the economic cycle, whenever possible, after they have been made safe.

RENOX specialises in transporting special chemicals, in treating them in chemical-physical facilities or disposing of them safely using direct incineration systems. One of the special features of the Bramsche Industrial Recycling Centre is its high temperature incineration plant that is even able to incinerate reactive and toxic chemicals and mixed materials as it reaches temperatures of over 1,100°C.



REMONDIS Industrie Service markets a high quality fuel produced from industrial waste which is sold under its RENOTHERM brand name. Using processes developed by the company itself, substances, such as old paints or adhesives, are screened, treated using complex procedures and then transformed into RDF fuel with a guaranteed calorific value. Such fuels help to sustainably conserve our planet's natural reserves of coal, gas and oil.

Metals such as tinplate and aluminium – which also leave the new HAZPAK aerosol can recycling facility compacted into briquettes – are recovered and returned to the metal processing industry under the RENOMETALL name.

Each year, 80,000 tonnes of hazardous materials are recycled in Bramsche so that they can be returned to production cycles as raw materials. Thanks to this centre, therefore, waste that poses a risk to the environment can also be used to conserve our planet's natural resources.

The Bramsche Industrial Recycling Centre is wellknown across Europe for the expert way it recycles hazardous materials. It also shows how REMONDIS is able to recover practically every type of substance and return them to production cycles



For 24 months now, it has been obligatory for organic waste to be segregated from other types of waste and collected separately across Germany. At the moment, however, only around 55% of German households have their own organic waste bin and one eighth of all local authorities have not even set up a separate organic waste collection scheme yet. When asked why they have failed to comply with the law, local politicians primarily give economic reasons to justify their actions – or rather lack of action: their ongoing contracts with waste incineration plants or the high costs involved in setting up a new collection scheme. AHE GmbH and the Ennepe-Ruhr district authorities, however, have demonstrated with their biogas plant in Witten that such schemes can be turned into a profitable business.



Digesting organic waste makes an important contribution towards preventing climate change. Carbon emissions are cut by 4,000 tonnes every year in the Ennepe-Ruhr district alone. Operators of biogas plants are proud of such figures as they underline just how much potential there still is in the recycling sector to protect the environment. And yet these environmental arguments would appear to fall on deaf ears when it comes to the local authorities. They still question whether collecting organic waste separately can be profitable or not. The costs, they say, of setting up a new collection scheme are too high and it would be too compli-

cated to work out the charges. In contrast, AHE managing director, Jürgen F. Ephan, says this is an easy problem to solve. The City of Witten is an excellent example. The local residents there only pay a fee for their residual waste bin, all their other bins are free. "This system works perfectly!" he said. The reason behind this is logical: separating waste streams from each other properly — especially residual and organic waste — reduces the weight of the residual waste bin which, in turn, reduces the fees charged for this bin. The local residents are, therefore, able to directly influence the size of their bill for their residual waste bin.



Each year, AHE recycles

**25,000** tonnes

of organic waste on behalf of the district authorities

and supplies





Kerbside collections are the most sensible way to collect segregated organic waste; having additional collection centres also makes sense but these cannot be a replacement for organic waste bins



AHE, a public private partnership between REMONDIS and AVU GmbH, officially opened its biogas plant in Witten in 2013 which is still one of the most modern of its kind in Germany. At the opening ceremony, Johannes Remmel, Environmental Minister for the state of North Rhine-Westphalia, called it "a shining example" – also because it clearly illustrated the advantages of the public and private sectors working together. Indeed, without this collaboration, this investment project would not have been possible. Each year, AHE recycles 25,000 tonnes of organic waste on behalf of the district authorities and supplies 2,000 households with electricity. Besides generating energy, the plant also produces compost and liquid fertiliser which it sells on to its customers.

Were it to be needed, the Witten digestion plant even has the capacity to handle the organic waste from the nearby city of Hagen. Hagen, however, owns a waste incineration plant and has up to now refused to provide its local inhabitants with organic waste bins. The city authorities there fear that they will not have sufficient quantities of residual waste to operate their plant if they introduce a separate collection scheme for organic waste. This is an argument heard all around the country and one that is easy to disprove. By introducing an organic waste collection scheme, Hagen would cut its annual costs by around 750,000 euros – as digesting this waste is about a third cheaper than incinerating it. "It is a complete mystery to me why local authorities do not pass on these savings to their residents," commented Jürgen F. Ephan. He is, above all, calling

for laws to be passed that make the most of the opportunities available. "Unfortunately, the German government's current term of office has not been one that includes ambitious environmental policies. We will need much greater support if sustainable laws are to be strictly implemented in the future," he concluded. Each and every day, recycling businesses do all they can to convince local politicians of the need to tackle environmental problems together as well as to make local residents more aware of these issues.

### "It is a complete mystery to me why local authorities do not pass on these savings to their residents."

Jürgen F. Ephan, AHE Managing Director

If the environmental ministers of the German states were to carry out their duty and enforce the new law to ensure organic waste was collected separately, then up to four million tonnes of materials could be recycled and reused in the future instead of being lost to us forever in waste incineration plants, as is the case at the moment. At the same time, capacities at the incineration plants would be freed up for other types of waste. Whilst the state ministries claim that importing waste from abroad would lead to an increase in incineration costs, it is in fact the failure to separate paper, glass and organic waste from each other that pushes up the volumes of materials being sent to German incineration plants.

# Long-term collaboration work



REMONDIS REMAINS COMMITTED TO DRIVING SUSTAINABLE DEVELOPMENT IN RUSSIA

Look back just a few years and Russia was considered to be one of the most attractive and fastest-growing emerging markets. Much has changed since then. The framework conditions have become more difficult and there is a general feeling of uncertainty as to how the country's economy will develop as a whole. REMONDIS is responding to these challenges in three different ways: by focusing more on specific areas, by concentrating on finding solutions that can act as role models for the rest of the market and by holding frank and open discussions with its partners.





Hendrik Vonneaut. Managing Director of REMONDIS

REMONDIS entered the Russian market back in 2008 and had already consolidated and stabilised its activities there by 2014. Today, its focus is on its operations in Dzerzhinsk and Saransk. REMONDIS' objective in both towns is to ensure waste is segregated and collected separately as well as to drive forward recycling activities. This strategy has led to the company playing a pioneering role when it comes to sustainable development – especially in Saransk. Other business plans include investing in state-of-the-art collection logistics for the region of Mordovia where many districts still have no access to any type of collection scheme at all. The company is also looking into the possibility of setting up a recycling plant there.



Over the next ten years, Russia is intending to invest around

of its gross national product in protecting the environment

### A need for entrepreneurial responsibility

The fact that market prospects have improved again is certainly one of the reasons why the company is expecting to remain committed to the Russian market over the medium to long term. Economic arguments are not enough on their own however. What is of primary importance is having reliable and resilient partnerships on the ground and being able to help Russia become more sustainable. At the end of the day, preventing climate change and conserving natural resources are global issues that do not stop at a country's border.

One of the Russian government's current goals is to increase recycling rates around the country. Since 2015, therefore, it has been working on drawing up new regulations to drive recycling. These should, for example, encourage investments in new plants via long-term concession agreements, which should set out the prerequisites for running a cost-efficient business. Plans are also to introduce the principle of producer responsibility, especially for used sales packaging. Obligatory recycling targets are expected to be introduced in 2017 for most types of packaging.

### Discussions on climate change & resource conservation

One particular feature of REMONDIS' work in Russia is holding regular discussions with its partners. Its objective here is to keep the dialogue going irrespective of geopolitical developments – in order to exchange know-how and experiences and so help conserve resources and prevent climate change. With this goal in mind, Russian delegations are invited regularly to visit REMONDIS' locations in Russia and Germany.



Just recently, Russia has looked to intensify talks with its European partners - leading to two important events being held in November alone. The 9th German-Russian Raw Materials Conference – whose theme this year was 'The raw materials business and its responsibility towards the climate and the environment' - was attended by both Federal Minister for Economic Affairs Sigmar Gabriel and the Deputy Prime Minister of Russia, Arkady Dvorkovich. It provided the perfect venue for discussing important issues and examining potential bilateral collaboration projects. The programme of events also included a visit to REMONDIS' Lippe Plant.

Moreover, a fact-finding tour was organised for Russian opinion leaders and decision-makers working within the waste management industry on behalf of the 'BMWi' (Ministry for Economic Affairs and Energy). The event took place at the end of November and also saw the Russian delegation visiting REMONDIS' Lippe Plant.

### The recession would appear to be over

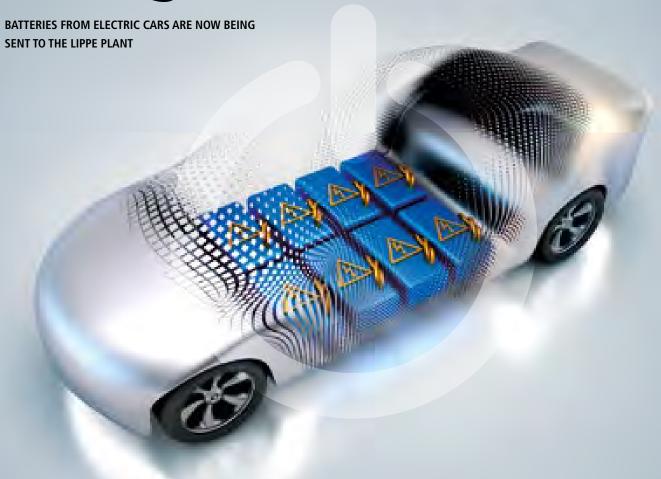
Following the slump experienced by Russia last year, there are now an increasing number of signs signalling that the Russian economy is slowly recovering. The Russian Ministry for Economic Affairs is expecting the country's gross domestic product to increase slightly in 2017. At the same time, international investors are returning to the market: according to the Bundesbank [German Central Bank], direct German investment in the Russian Federation amounted to 1.73 billion euros during the first six months of 2016. It had, therefore, almost reached the total amount invested in 2015 (1.78 billion euros). Russia would appear to be back – good news for both bilateral business relationships and for the efforts being made by the international community to tackle global warming and protect the environment.

Russia has officially declared 2017 to be the "Year of Ecology". New laws aim to drive sustainable development across the country

REMONDIS is helping to drive recycling in the regions around the cities of Saransk and Dzerzhinsk, e.g. by investing in state-of-the-art collection logistics

Dzerzhinsk d. Dubrovki Saransk

# Lünen home to the biggest battery storage unit



The world's largest storage unit for car batteries at REMONDIS' head office in Lünen was officially hooked up to the grid in October. Constructed in less than twelve months, this 13 MWh project has now been completed and the first cords connected to the grid. This project, a joint venture between Daimler AG, The Mobility House AG and GETEC, will now enable a total of 1,000 battery systems from second generation electric drive vehicles to be incorporated into a stationary storage unit.

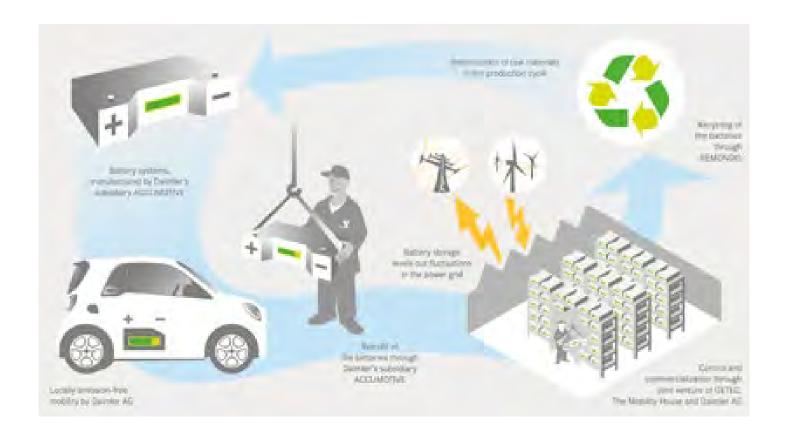
Together, the four companies cover the whole life cycle of a battery











The Mobility House is responsible for operating the storage unit in Lünen together with the energy service provider Getec – and for selling the electricity to the energy markets. The storage unit will be running at full capacity by the end of the year. High performance battery storage units will be an essential part of the energy market, if Germany's goal of switching from fossil fuels to renewable energy is to be a success. They will be key to stabilising the grid as more and more electricity is provided by fluctuating renewable energy sources as they can level out the dips in energy supply with virtually no loss. At the same time, the project is helping to improve resource efficiency levels: whilst the batteries may no longer be suitable for electric cars, they can still be used in stationary units for at least another ten years. The commercial service life of the batteries from electric cars is effectively doubled when they are integrated into such battery storage units.

This scheme, therefore, will help improve the environmental performance of electric vehicles and make them more economical.



By collaborating with Daimler's subsidiary, ACCUmotive, and REMONDIS, this project run by The Mobility House and Getec at the Lippe Plant covers the whole life cycle of a battery: the battery systems are produced and processed by AC-CUmotive and Daimler sells the range of electric and plug-in hybrid vehicles to its customers. The batteries are then installed in the stationary battery storage unit and the electricity sold on to the energy markets by The Mobility House and Getec. When the batteries finally reach the end of their useful life, it will then be REMONDIS that will be responsible for recovering the valuable raw materials so that they can be returned to production cycles.

A total of 1,000 battery systems will be connected to the grid when the unit is running at full capacity

# Prepared for the worst

#### FIREFIGHTERS AND REMONDIS WORK TOGETHER HAND IN HAND TO IMPROVE SAFETY

It could have been a scene from a disaster movie. One of REMONDIS' trucks suddenly veers out of control at REMONDIS Industrie Service's branch in Lübeck and crashes into a stack of liquid containers. An employee standing close by is buried under the containers and hydrofluoric acid begins to escape. The driver of the truck is slumped over the wheel of his vehicle, unconscious after having suffered a heart attack. A third employee rushes to help his colleague trapped under the containers and breathes in the fumes. He, too, loses consciousness and collapses to the ground in an area that is difficult to spot – with his face dangerously close to the leaking chemical. The firefighters arrive within just a few minutes of the alarm going off and rush over to the scene of the accident to help all those injured. It soon becomes clear, however, that this is – thank goodness – just an exercise to hone the firefighters' skills and that the casualties are actors simply playing their part.

The emergency call was put through to the plant's fire station in Lübeck on Thursday, 13 October 2016, at 3.03pm. The whole team of firefighters responded to the call immediately. According to the information given, there had been an accident at REMONDIS Industrie Service's branch in Steinbrückerstraße 10 that involved a number of casualties and a dangerous chemical leak. At this point, the professional firefighters do not know how many people are involved nor that this is an exercise organised by their bosses. Several fire engines and ambulances are sent straight to the site

i.e. the combination of a person contaminated with hydrofluoric acid (here an actor covered in water dyed with green food colouring), an accident with a high pressure vacuum truck with an unconscious driver and containers leaking a dangerous and toxic liquid — would in fact be highly unlikely. The exercise also involved them setting up a decontamination area for the fire and rescue workers after their work had been completed as well as to cordon off the scene of the accident. They needed just under an hour to rescue the people and make the area safe.

"Thanks to such exercises, it's good to know that the Lübeck fire brigade is able to deal with whatever disaster is thrown at them." René Jurock, REMONDIS manager responsible for the north

equipped with a wide range of safety gear including full body protection, breathing apparatus and decontamination equipment. The "scene of the accident" had in fact been carefully planned and set up by REMONDIS and the chief fire officer and combined a number of possible emergencies. The scene that the firefighters were confronted with —

"All in all, everything went very well. There are a few places where we can still improve our performance. And we were able to test some new technology," commented the fire-fighter instructor, Henning Witten, summarising the exercise whilst the fire crew were being hosed down in the decontamination tent. René Jurock, REMONDIS manager responsible for the north, was also happy with how everything went: "We very much hope that we'll never have to deal with such an accident. Thanks to such exercises, though, it's good to know that the Lübeck fire brigade is able to deal with whatever disaster is thrown at them."



# A refinery turnaround in record time



**COMPLEX SHUTDOWN PROJECT IN NORWAY WITH** XERVON INSTANDHALTUNG GMBH AND BUCHEN **UMWELTSERVICE GMBH** 



The same vitally important scenario can be seen at large plants, such as refineries, every few years: whole plant sections are temporarily closed down so that they can be overhauled, cleaned and inspected. As was the case at Statoil's Mongstad refinery in Norway. It had commissioned XERVON's maintenance specialists to perform extensive tasks - planning, coordinating and implementing the project.

Mongstad refinery is the largest of its kind in Norway and is situated on the west coast approx. 80 kilometres north of Bergen. This was not the first time XERVON Instandhaltung GmbH had travelled to the plant: two years ago, a team of their specialists spent several weeks there carrying out maintenance work, demonstrating their expertise and the high quality of their work. At the beginning of 2016, the company was then awarded a further contract to carry out this far more complex project. This involved a so-called turnaround (i.e. the whole plant had to be shut down) which meant starting the preparation work months in advance.

The state-of-the-art refinery in Mongstad processes around 12 million tonnes of crude oil every year. Most of this oil comes from the continental shelf along the Norwegian coast





### Specialists collaborating together

XERVON Instandhaltung GmbH was appointed the main contractor giving it full responsibility for the wide variety of tasks that needed to be carried out. These ranged from working on the heat exchangers and air coolers, to servicing containers, columns and furnaces and dismantling and installing fittings, all the way through to performing welding work on the pipes and machines. Besides this, the company was also in charge of planning and coordinating the different tasks as well as all cleaning, inspection, scaffolding, insulation and crane work for the above-mentioned plant sections.

All of XERVON's activities were carried out in cooperation with Statoil's own planning team as well as with the other service providers present on site. Once again, the close collaboration between the two REMONDIS companies, XERVON and BUCHEN, proved to be extremely successful. As with so many other joint projects in the past, the BUCHEN specialists were responsible for the industrial cleaning work at Mongstad. All in all, XERVON Instandhaltung GmbH and its partners deployed the biggest team of employees - with 445 specialists travelling to the refinery in Norway to ensure the turnaround was completed successfully.



### **Much shorter downtime**

The extensive range of tasks that XERVON Instandhaltung GmbH was responsible for as the main contractor was performed from 12 to 30 September 2016. This extremely tight schedule was a success in itself with the work being completed in just 19 days. Previous turnarounds had lasted much longer - between 24 and 30 days. Thomas Kramel, managing director of XERVON Instandhaltung GmbH, commented: "We were able to show how the downtime can be reduced and, consequently, how costs can be cut. Whilst always delivering a top quality performance."

### Top priority given to safety

Besides delivering high quality work and keeping to the agreed budget and schedule for the Norwegian turnaround project, the company also gave top priority to all matters

concerning work safety. Their task here was to ensure that all those working on the project adhered to the stringent safety regulations at all times. The smart system used by the company to approve and allow the different tasks to be carried out is just one example of the many measures they had in place to make sure this was the case. There were also very strict rules regulating how the work itself should be performed. The tools, for example, had to be attached to special devices to prevent them from falling down. Despite all this, the XERVON team performed their work in the usual fast and reliable manner. Two years ago, the refinery operators had singled out the company expressing their great satisfaction with XERVON's stringent safety standards and professionalism - once again they were able to reaffirm the high quality of their services.



Many of XERVON'S employees moved into temporary accommodation close to the refinery whilst they planned and executed the project

With over 50 years' experience and more than 500 successfully completed projects under its belt, XERVON Instandhaltung GmbH is a competent partner for plant shutdowns, no matter what their size

O years' 500 projects experience

# **Economics Minister** at the REMONDIS Forum

DISTINGUISHED SPEAKERS DISCUSS BUSINESS PRACTICES AND INTEGRATION





"Human capital and leadership skills – Training as a resource." This was the motto of this year's REMONDIS Forum, which was held in the German City of Goslar to mark the 20 years' collaboration work between the city authorities and REMONDIS Aqua's subsidiary, EURAWASSER. Over 300 guests from the worlds of politics, science and business accepted REMONDIS Aqua's invitation and attended the event, which took place this September, to take a close look at and discuss the potential performance of today's workforce and how training and education can impact on this.

The forum centred around the speeches given by a number of distinguished guests who talked, for example, about the latest challenges managers have to face as a result of the rapid technological progress being made and demographic change. The audience was first welcomed to Goslar by Andreas Bankamp, managing director of REMONDIS Agua, Dr Oliver Junk, Lord Mayor of Goslar, and Gerhard Lenz, director of the World Heritage Site Rammelsberg. Urs Meier, the retired FIFA referee from Switzerland, then stepped up to the podium to kick off the proceedings. Using some entertaining anecdotes from his time on the football pitch as a referee, he had no difficulty in getting his message across to all those present: managers must not only be able to blow a whistle but must also be able to make decisions – because they are the ones that must take over responsibility.

One very successful decision-maker, the honorary chairman of the supervisory board of the RETHMANN Group Norbert Rethmann, agreed with everything that Urs Meier had to say. During his speech, he took a look back at the decisions he had had to make to grow his family-run business. Not long after he had taken over his parents' haulage business, he began asking himself a number of questions: 'Isn't waste far too valuable to be simply dumped in landfills?' and 'Doesn't waste impact negatively on our environment if it remains untreated?' Nowadays, practically all kinds of residual materials can be and are recycled by the RETHMANN Group

companies. Its subsidiary, Saria, even recycles fish and abattoir waste, recovering important substances for the cosmetics and pharmaceutical industries. Heparin, for example, is produced from pig intestines – an important substance for preventing the coagulation of the blood. "Waste materials, no matter what kind they may be, are the raw materials of the future. The importance of the recycling industry will overtake that of the chemicals or automobile industries within the next decade," commented Norbert Rethmann during his speech at the REMONDIS Forum in Goslar.











Among the distinguished speakers at this year's REMONDIS Forum were Sigmar Gabriel, Federal Minister for Economic Affairs, Urs Meier, retired FIFA referee, and Norbert Rethmann, Honorary Chairman of the Supervisory Board of the RETHMANN Group

Tobias Schrödel followed this with a humorous look at a very new kind of management: "Hacking for Managers - a different approach to IT security". Here, he described the world of hackers, explaining all about their IT 'chest of poisons' and pointing out security loopholes in a most entertaining way. Cracking passwords in no time at all, publishing home addresses and supposedly discredited information - the audience was fascinated and shocked by what he had to say.

Next at the podium was Federal Minister Sigmar Gabriel who held a talk about demographic change and promoting integration. The leader of the SPD party presented some telling figures: whilst Germany's current workforce consists of 50 million people, this figure will have dropped to just 43.5 million by 2030. The country's population will, in all probability, have fallen from 82 million to 73 million by 2060. It is, therefore, essential that the country responds to this extremely rapid demographic change and ensure that the refugees arriving in Germany are successfully integrated into society. What is essential here is having a strong and wellfunctioning economy and having parliament draw up the

 Andreas Bankamp, Managing Director REMONDIS Aqua, Sigmar Gabriel, Federal Minister for Economic Affairs, and Norbert Rethmann, Honorary Chairman of the Supervisory Board of the RETHMANN Group, stand for responsibility and management expertise

necessary conditions to enable this to happen, Sigmar Gabriel explained. Emphasis must not be put on saving money but on investing it. He also had a clear message for the refugees: "Integration is hard work. We must prevent parallel societies from developing around the country". Those seeking political asylum in Germany need our support but they must also step up to the mark, too. "Immigration must be seen as an opportunity," Sigmar Gabriel continued. People who travel to Germany to escape poverty and hardship must not be ostracised but must be allowed to join in and become part of our society. However, realism is just as important as optimism. "Demographic change – coupled with the current immigration levels - is one of the largest experiments that an industrialised nation has ever had to face."

> Whilst Germany's current workforce consists of 50 million people, this figure will have dropped to just **43.5** million by 2030

The country's population will, in all probability, have fallen from 82 million 73 million by 2060

# REMONDIS Aqua treats wastewater in Istanbul

ISTANBUL'S MAIN SEWAGE TREATMENT PLANT NOW OPERATED BY REMONDIS AND MASS



REMONDIS Aqua's Turkish subsidiary, REMONDIS Su ve Atik, has been responsible for operating one of the largest sewage treatment plants in Istanbul and for carrying out all maintenance work there since November. This major new contract in Turkey was signed after the partners came to a mutual agreement that REMONDIS should work together with MASS, a well-known Turkish water company.

The plant in Istanbul, a city with 14 million inhabitants, is to be run as a joint venture. MASS leads the market in Turkey when it comes to biological sewage treatment plants. Being awarded this important contract was a major success for REMONDIS Su ve Atik who consider it a great honour to be allowed to work with this partner. "We look forward to stepping up to this new challenge in this vibrant Turkish city," commented REMONDIS Aqua managing director, Andreas Bankamp.

### **Business continues to grow in Turkey**

Over the last few years, REMONDIS has continued to expand its operations in Turkey and is now a well-known and highly respected service provider — both in the water and wastewater sector as well as in the recycling industry. Turkey remains an important partner for the whole of the group despite the current political difficulties. REMONDIS continues to look for new investment opportunities in the country so that it can build on the extensive investment projects it has already carried out in the recycling and water sectors and so help Turkey reach its environmental goals.



### New managing director at WAL-Betrieb

### KARIN RUSCH SAYS FAREWELL TO THE COMPANY AT THE END OF HER VERY SUCCESSFUL CAREER

Ten years after REMONDIS Aqua's subsidiary WAL-Betrieb (a water service provider based in the German city of Senftenberg) began operations, the managing director responsible for commercial affairs has handed over her baton to the younger generation. Having worked at the company for so many years, Karin Rusch stepped down from her position on 31 August 2016 and is now enjoying a well-earned retirement.



Karin Rusch played a key role in developing WAL-Betrieb over the last ten years and in turning it into such a successful business. The numbers are impressive: over the last decade she has been responsible for investment projects totalling 124 million; almost 40 apprentices have successfully passed their exams whilst she was managing director at WAL-Betrieb qualifying to become industrial administrative officers, mechatronics engineers or plant fitters. Moreover, she succeeded in acquiring, developing and managing a further 33 municipal and industrial projects alongside her work of managing the operations for the Lausitz Water Board in Senftenberg, a town situated in the south of the German state of Brandenburg. Thanks to her good work as managing director, the company is well known across the region for being an expert and reliable partner for both the public and private sectors.

"I know that I won't find it easy to let go of the interesting and exciting work at WAL-Betrieb. Having said that though I am going to love having all that extra time to spend with

my family, especially my grandchildren, to go on holiday, to focus more on my hobbies and to go out more with my friends," commented Karin Rusch just before she left.



The team of managing directors at WAL-Betrieb: Roger Lucchesi, Julia Behrendt and, since September, Stefan Voß (from left to right)

Her successor as managing director responsible for commercial affairs is 39-year-old Stefan Voß, previously a commercial manager and authorised signatory at WAL-Betrieb. "WAL-Betrieb plays an important role within the REMONDIS Group and is well known for its successful and well-managed operations. I aim to continue to grow the success of our company and am happy to have such a motivated team of specialists there to help me," said Stefan Voß looking ahead at his future role.

Karin Rusch had been a managing director at WAL-Betrieb since the company's foundation in 2006







The largest sewage treatment plant in the German state of Mecklenburg-Vorpommern celebrated its birthday on 09 September. EURAWASSER had handed over the extended sewage treatment plant to the Warnow Water and Wastewater Association (WWAV) 20 years before on the exact same day – enabling Rostock to treat wastewater properly for the very first time in its history. Today, the sewage treatment plant provides a reliable service treating the wastewater generated by those living and working in Rostock as well as from 12 neighbouring districts. The Warnow Water and Wastewater Association and EURAWASSER organised an event to celebrate this occasion which included a book launch and an Open Day for all those interested.

### **EURAWASSER**



"Everyone expects to be able to discharge their used water into the sewer system – they simply take it for granted. Very few of them realise, however, just what a complex process it is to treat their wastewater," commented Ines Gründel, chairwoman of the Warnow Water and Wastewater Association. Situated in Bramow an der Unterwarnow, just a few kilometres from the Baltic Sea, the sewage treatment plant has to be extremely careful about the way it cleans the water. To be able to fulfil its responsibilities, the plant was extended and commissioned in September 1996.

EURAWASSER rebuilt the old sewage treatment plant with its single mechanical cleaning stage transforming it into one the most modern sewage treatment plants in Germany – a project

"A further 10 million euros have been invested in the plant since it was extended to optimise work processes and technology."

Robert Ristow, Managing Director of EURAWASSER Nord GmbH

History was made when the central sewage treatment plant opened in Rostock – the city was able to treat its wastewater properly for the very first time

that cost a total of 82 million euros. One of the biggest challenges here was to ensure the plant adhered to the strict discharge values set out by the Helsinki Convention (HELCOM). Thanks to the extension work carried out at the sewage treatment plant, pollution levels in the River Warnow were reduced by 95%. Whilst the plant has delivered the same high wastewater treatment performance since then, EURAWASSER has continued to further develop the sewage treatment plant over the years, especially to optimise its energy consumption. The managing director of EURAWASSER Nord GmbH, Robert Ristow, pointed out how the plant has always met the strict discharge values set by the authorities. "Documents are on hand to certify the excellent quality of the discharged water and the improved energy consumption levels. EURAWASSER will continue to observe the latest developments to see whether they can be adopted to further improve the plant's performance.





EURAWASSER and the WWAV celebrated this special occasion by organising an Open Day at the central sewage treatment plant

A further 10 million euros have been invested in the plant since it was extended to optimise work processes and technology."

The Warnow Water and Wastewater Association had a surprise for this special occasion. Reinhard Lübker, former long-standing managing director of the association, had written a book relating the history of wastewater treatment in and around Rostock. Entitled "Alles fließt. Aber wohin?" [It all keeps flowing but where does it go?], the author has made the most of his four decades of experience of working in the water industry to look back at the wastewater sector, which also includes an account of the eventful history of the central sewage treatment plant. This fascinating book was published by Redieck & Schade, a publishing house based in Rostock.

All those interested were invited to attend the Open Day to enable them to find out more about the work of the central sewage treatment plant. The largest sewage treatment plant in Mecklenburg-Vorpommern opened its doors to the public and organised an entertaining programme for all those

present. Besides putting on some fun events for young and old, EURAWASSER and WWAV explained how the state-of-the-art and complex technology actually worked. Other highlights included tours of the plant, a panoramic view of the area from the platform of a crane 50 metres up in the air, the chance to look inside the company's special vehicles, games and surprises for the children as well as music, shows and a selection of talks.



Go to eurawasser-nord.de to see a film of the Open Day



# Stable water charges for 16 years

LOCAL INHABITANTS ALSO BENEFIT FROM WAL-BETRIEB'S GOOD BUSINESS RESULTS





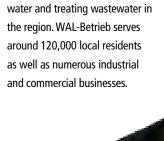
According to an announcement made by Dr Roland Socher, chairman of the Lausitz Water Association, the association's results for 2015 had improved by 33% compared to the year before. One of the main reasons for this was, he said, the strong performance of Wasserverband Lausitz Betriebsführungs GmbH (more commonly referred to as WAL-Betrieb), an external service provider responsible for both the technical and commercial side of its operations.

WAL-Betrieb, a fully owned subsidiary of REMONDIS Aqua, has been collaborating with the water association, which is based in Senftenberg in the south of the German state of Brandenburg, for many years now. This close cooperation is clearly reflected in the water association's business success. WAL's customers have also benefited from this success with their fees and charges having remained stable for around 16 years now. "We will not be putting up our charges next year either even though the number of people living in the region continues to fall," Roland Socher announced. The lower interest rates have also had a positive impact on the business results.

The chairman of the local water association explained that they would be continuing to look at the options to restructure their debt so as to keep their interest charges as low as possible. As a result, it may even be possible to implement future investment projects without having to take out new loans. The largest project currently being undertaken by WAL is the construction of a sewage system in Kostebrau which will cost around

two million euros. Other projects are to follow in 2017/2018 including the extension work on the Tettau Waterworks which will then take over from the region's current drinking water supply system. Looking ahead, though, the majority of the investment activities will be focusing on renovation or replacement work.

WAL-Betrieb took over the operation of all of the water-related plants and facilities owned by the Lausitz Water Association in 2006. Since then, it has been responsible for supplying drinking



Dr Roland Socher.

### A fun occasion!

**BÜTZOW CELEBRATES 100 YEARS OF TOP QUALITY WATER SUPPLY** 

The history of Bützow's public water supply network began 100 years ago. Whilst each property had got their drinking water from their own small wells prior to this, everyone had access to the public system in 1916 following the construction of the waterworks and water tower.

Being able to get drinking water from our tap whenever we want is taken as a given nowadays. In Bützow, the drinking water is sourced from four wells 45 to 60 metres deep in the ground and then processed in the waterworks. The extracted raw water is aerated with oxygen from the air via a special mixer and then passed through three filter vessels. The treated water is then temporarily stored in two screened water tanks (each able to hold 750m<sup>3</sup>) before being fed into the pipe network via four pumps.

Acting on behalf of its client, WAZ (Güstrow-Bützow-Sternberg Water and Wastewater Association), EURAWAS-SER Nord GmbH supplies households, industrial businesses and commercial firms in Bützow, Rühn and Steinhagen with around 1,550m<sup>3</sup> of drinking water via its 77km long pipe network every single day. All of its customers - whether they be one of the approx. 8,900 local residents, at Bützow Prison or at Warnow Hospital – know that they will always receive top quality drinking water. "Nowadays, people take it for granted that they can turn on their tap whenever they want and get the right amount and right quality of drinking water. Only a very small number of them know just how complex it actually is to treat the drinking water," commented Christian Grüschow, Mayor of Bützow and Chairman of WAZ.

state-of-the-art technology. Robert Ristow, managing director of EURAWASSER Nord GmbH, described some of the

investment projects that they had carried out over the last few years: "We have built up a top quality supply network. Focus here was put on renewing the water pumps as well as the switching station and the electrical system. Moreover, money was spent on a new well and on the transformer station. All in all, these investments amounted to around 400,000 euros."

EURAWASSER

**YEARS OF TOP QUALITY WATER SUPPLY IN BÜTZOW** 

"Nowadays, people take it for granted that they can turn on their tap whenever they want and get the right amount and right quality of drinking water. Only a very small number of them know just how complex it actually is to treat the drinking water."

Christian Grüschow, Mayor of Bützow and Chairman of WAZ



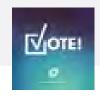
### **RESPRAY nominated for 2017 GreenTec Awards**





The innovative RESPRAY aerosol can recycling system ('RESPRAY - turning old cans into something new') has made it onto the shortlist of the final Top 10 nominees ('Recycling & Resources' category) for this year's GreenTec Awards, Europe's most prestigious environmental prize. RESPRAY, a division run by REMONDIS Industrie Service GmbH, has beaten its competitors with its dedicated full service system to collect and recycle aerosol cans. Three

of these Top 10 nominees will then be presented to the 70-strong jury and just one of them will be awarded this special trophy in Berlin on 12 May 2017. Two of the projects will be selected by the jury, the third by the online voting system which is open to all. The final winner of the 2017 GreenTec Awards is chosen by the jury which is made up of business people and scientists as well as representatives of trade associations and the media.





People have until 06 January 2017 to cast their online vote and we would very much appreciate your support for 'RESPRAY - turning old cans into something new'

### REMONDIS to remain in the Altenburger Land district



Signing the contracts: (front row / from left to right) Mr Helbig (Chairman of the Plant Committee), Ms Sojka (District Administrator), Mr Zipfel (REMONDIS Managing Director), (back row / from left to right) Mr Bokemüller (Managing Director Fehr), Mr Lindemann (WPT), Mr Prange (REMONDIS Altenburg), Ms Groß (Authorised Signatory Fehr)

Some time ago, the waste management business owned by the Altenburger Land district authorities, Dienstleistungsbetrieb Abfallwirtschaft, invited companies to put in their bids for its waste management services in a Europe-wide tender. The new contracts, which come into force on 01 January 2017, have now been signed with the new client. REMONDIS GmbH & Co. KG will now be responsible for collecting residual waste, bulky waste, old paper and waste electrical and electronic equipment. The new contracts are valid for a period of six years. Approx. 10,500 tonnes of residual waste are generated in the Altenburger Land district every year as well as 3,700 tonnes of bulky waste.

"As the company has been providing the district with waste management services for a number of years now, we know that it is reliable and delivers a top quality performance. We look forward to continuing our work with them," said Andrea Gerth, head of Dienstleistungsbetrieb Abfallwirtschaft.

### Germany's best apprentice at LWG

Lausitzer Wassergesellschaft, a subsidiary of EURAWASSER Cottbus GmbH, can consider themselves fortunate. Their former apprentice, Steve Krengel, has been named the best participant for his apprenticeship course (plant mechanic) across the whole of Germany.

The 24-year-old from Cottbus has been invited to attend a special event in Berlin on 05 December where the top apprentices from across the country will be honoured for their excellent performance. Federal Minister for Families, Manuela Schweig, will also be there to hold a speech and congratulate them.





24-year-old Steve Krengel was named one of the best apprentices of his year; he did his apprenticeship to become a plant mechanic at LWG and has since been taken on by the company

### **Cycling for Recycling**



A few months ago, REMONDIS Electrorecycling Poland and 'Electro-System', a takeback scheme for waste electrical and electronic equipment (WEEE), joined forces with the ecologist, Dominik Dobrowolski, to initiate the environmental education project, "Cycling Recycling". In August, they organised a bike tour that covered more than 2,000km and travelled through many Polish towns and villages. Everyone was invited to join in for as long as they wanted. Working together with the local authorities, media and social organisations, they coordinated a number of campaigns to inform and teach people about the subject of WEEE recycling and motivate them to hand in their old devices. Special collections took place in ten different cities as part of this

equipment. Both environmental awareness and levels of commitment to WEEE recycling are obviously growing in Poland looking at the volumes collected during this campaign. The employees from REMONDIS Electrorecycling Poland took part in the 300km leg of the tour from Bielsko-Biała to Wroclaw. They were there to represent the company — and to show that REMONDIS is not only a recycling company but is also fully committed to solving environmental problems and making people more aware of environmental issues.

Miroslaw Basciuk (4th from right) persuaded seven of his colleagues at REMONDIS Electrorecycling in Bloine to take part in a 300km bike ride



# **Promoting integration**

A YOUNG SYRIAN SPENDS TWO WEEKS HELPING REMONDIS IT SERVICES

About twelve months ago, Yeazdan Sher Ahmad packed his suitcase and left his Syrian hometown, Amounda, to make his way to Germany. He and his family fled the country to escape the terror and despair there. His father had already left ahead of them — travelling first to Turkey and then to Germany. He arranged for his family to follow as soon as he had found a safe haven. Yeazdan, his mother and his three younger siblings set off as soon as they heard from him. Their first home in Germany was in Beckum but they moved to Lünen soon after.

Yeazdan had already passed his high school exams in Syria and enjoyed spending time on his computer whenever he could.

Unfortunately for him there were no openings available in wartorn Syria for him to do an apprenticeship. He has at last been able to do his first internship at REMONDIS. He helped the team at REMONDIS IT Service, carrying out a series of tasks on his own — assembling or dismantling servers, installing system software or making technical improvements to presentations. "It's great fun working here! I've already handed in my application to do an apprenticeship," he said. The 19-year-old certainly appeared to be totally at ease with the technology, with his colleagues and with the new language.

very seriously. Yeazdan and his father are using what they have learned to improve their job applications. They are also both taking driving lessons at the moment. His overall objective is to become part of German society as quickly as possible, which has also meant that he has been unable to spend much time on his favourite hobby — playing football. Coming from Syria where people only ever talk of team Messi and team Ronaldo, he finds it great that there are so many clubs here in Germany. He admits, somewhat reluctantly, that he prefers Bayern München. His cousin though has already warned him: "You mustn't say that too loudly here," he said grinning at the rivalry between the different fans.

He is, though, more than happy if this is the only thing he shouldn't talk about. "We weren't allowed to say anything in Syria," he explained. It was very difficult to get out and about in Amounda during the last three years he spent there and he rarely felt safe, especially at night. The best thing about his new home is the freedom he now has. Yeazdan's wish is to be happy and perhaps even to go to university. If he does not get an apprenticeship job this time, then he will continue to improve his German and write more applications. Daniel Crämer, apprenticeship manager at REMONDIS IT Services, described Yeazdan's work as being 'impeccable'.

His greatest fear before leaving Syria, he said, was whether he would be able to learn German. An unnecessary fear as he is already able to communicate easily with his colleagues. In fact, he finds German easier than English. The whole of the Ahmad family have taken the German languages courses

"He has great qualifications. We would love to help him and are waiting to see whether he succeeds in getting through the application process. It would be great to have him here,"

Daniel Crämer, apprenticeship manager at REMONDIS IT Services

### > Impressions



- Federal Minister for Economic Affairs Sigmar Gabriel together with Klemens Rethmann, Board Chairman of RHENUS SE & Co. KG, at the 14th Asia-Pacific Conference of German Business in Vietnam
- Karl-Heinz Florenz (centre), EVP MEP and a member of the Committee on the Environment, accepted an invitation to the Lippe Plant; he was welcomed by Egbert Tölle, REMONDIS Board Member, Julia Behrendt, REMONDIS Aqua, Ludger Rethmann, Board Chairman of REMONDIS, and Heinz Maurus, REMONDIS Assets & Services (from left to right)



■ Stefan Heidbreder, Managing Director of the Foundation for Family Businesses, presenting Norbert Rethmann, Honorary Chairman of the Supervisory Board of the RETHMANN Group, with a prize after his company was named one of the Top 10 family-run businesses in Germany





Robert Ristow, Managing Director of EURAWASSER Nord GmbH, and Dr Hermann Otto Solms, Federal Treasurer of the FDP Party, taking a tour around the central sewage treatment plant in Rostock

Michael Figge (centre) and Tobias Icke



(centre back) from REMONDIS Agua handing over a donation of 40,000 euros to the secondary schools in Selm. The money will be used to buy new technology for the classrooms. Those representing the schools were very happy to accept the donation: (from left to right) Monika Steinbrecher, a teacher at the Realschule Selm, Maria Artmann, 1st Chairperson of the Friends' Association of the Realschule Selm, Eva Graß-Marx, Acting Head of the Sekundarschule Selm, Christiane Dammberg, 1st Chairperson of the Friends' Association of the Gymnasium Selm, Headmaster Ulrich Walter and Jana Müller-Simdorn, 2nd Chairperson of the Friends' Association of the Sekundarschule Selm

4th year pupils at the middle school in Saransk (Russia) put on shows for both adults and their schoolmates to promote the separate collection of waste in their country

Thanks to the help given by REMONDIS' apprentices in Lünen, this year's "Lünen

Apprenticeship Evening" was a great success







# Technically speaking, there is only one growth industry. And it has been around for 3.9 billion years

Phosphorus plays a vital role when it comes to biological growth and energy metabolism. In fact, it is true to say: no phosphorus – no life. Which is why we have developed REMONDIS' patented TetraPhos® recycling process that enables phosphorus to be recovered from incinerated sewage sludge, a by-product of wastewater treatment. This not only sounds smart, it is smart – and was the reason why we were presented with the 2016 GreenTec Award in the 'Recycling & Resources' category. To find out more, go to > remondis-sustainability.com

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