

The REMONDIS Group magazine

REMONDIS AKTUELL

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AKTUELL

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24/7 – Services at the click of a button

THE REMONDIS GROUP'S
DIGITAL SOLUTIONS



Consumers happy to separate waste – with a simpler system

A positive response across Germany to the geTon on Tour campaign

Bienvenue à Beauvais !

New REMONDIS location in the French Department of Oise

When take-off is a thing of the past

TSR helps dismantle two A340 Airbuses

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Ludger Rethmann, REMONDIS Board Chairman

Dear Readers!

Once again another successful year is drawing to a close for our family-run company. This sentence, or one similar, can be read really quite often. In our case, a look back at the editorial of our 2018 Christmas issue might bring on smile. Exactly one year ago, we spoke of the great business opportunities in both the recycling industry and the transport sector. At the time, we wrote in our editorial: "We have been able to make the most of these opportunities by taking steps to acquire DSD – Duales System Deutschland GmbH (and to purchase shares in Transdev). Both transactions must still be approved by the relevant authorities."

As we know today, twelve months on, the acquisition of shares in the Transdev Group worked out perfectly while the other – DSD – has, at least for the time being, been blocked by the German monopolies commission. Having assessed the packaging recycling market last year, we believed that DSD did not have a dominant market position – something that has been further underlined by the latest developments. The customer structure within the Dual System has changed dramatically since the Schwarz Group became, practically overnight, one of the five largest recycling companies after taking over Tönsmeier and expanding into the packaging market with its renamed firm, PreZero. REWE, one of the three biggest distributors of sales packaging in Germany, has changed its Dual System provider and moved to Reclay. And, on 19 November, a press release was published in the media that Aldi has also changed its provider and is now licensing its packaging with Interseroh instead of DSD. It will be interesting to see if and to what extent these latest developments will impact on the Regional Appeal Court's ruling.

Looking at the world of politics, 2019 has ended with the German government bringing out a concrete climate action package. The recycling industry, which has played a major – if not decisive – role in reducing greenhouse gas emissions since the introduction of the TaSi [Technical Directive on the Recycling, Treatment and Disposal of Municipal Waste] in 2005, is rubbing its eyes in disbelief having read the 22 pages. A mere 16 lines have been devoted to our industry. Perhaps they are already simply taking the positive impact we have on tackling climate change for granted? It is probably more likely that they continue to underestimate the potential of recycling to combat climate change. And there is still so much unused potential. Were the substitution rate, i.e. the share of recycled raw materials used in industrial production processes, to be doubled from the current 15% to 30%, then this alone would lead to emissions of CO₂ equivalents being cut by around 60 million tonnes. The fact remains that comprehensive recycling measures will enable the climate goals to be met. Indeed, REMONDIS shows that this is possible every single day.

With this optimistic outlook, I would like to thank you all for your great support and collaboration over the last twelve months. We wish you a Merry Christmas and a happy, healthy and successful 2020.

Yours

A handwritten signature in black ink that reads "Ludger Rethmann". The signature is written in a cursive, flowing style.

Ludger Rethmann

24/7 – Services at the click of a button

THE REMONDIS GROUP'S DIGITAL SOLUTIONS

One of the biggest challenges of our times is finding the best possible way to unite business efficiency with sustainability. Consumers nowadays no longer expect to simply receive a product or a service. They want to get them quickly and they want the whole process to be an enjoyable experience. Which is why an ever growing number of companies are turning to digital aids. The REMONDIS Group is there among them, offering many of its services at the click of a button.



More than 120 of REMONDIS' business locations are already connected to REMONDIS' customer portal.



Thanks to the customer portal, several million sheets of paper can be saved a year as invoices no longer need to be printed out and sent by post

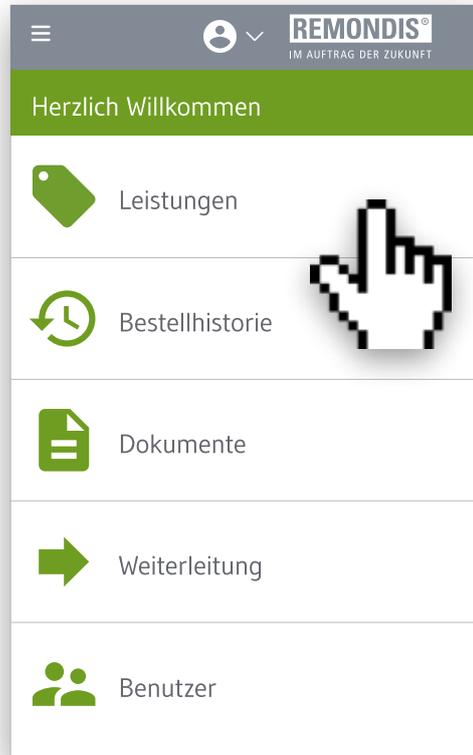
REMONDIS' customer portal

All services at the click of a button – digital, transparent, 24/7

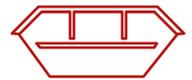


'Register once and you've got access to all the information you need for as long as you want it'. This statement is true for all of the REMONDIS regional companies' customers now that the new customer portal is up and running. More than 120 REMONDIS business locations are already offering the Group's digital customer services to their business customers. REMONDIS' customer portal is particularly useful for its small and medium-sized commercial, industrial and retail customers as it provides them with a paperless overview of their contract details, service locations, orders and invoices. Having signed up at kundenportal.remondis.de/start – a one-time procedure – they are not only able to log on to the portal as administrator but can also give as many of their staff access to the site as they want.

News updates regarding the customer portal – for example notifications about incoming invoices – are automatically sent to the group of recipients selected. If requested, the user can also receive these as a pdf. All of the documents can be viewed on the portal for 13 months and downloaded as needed. At the end of the thirteen months, they are then automatically deleted in accordance with data protection regulations.



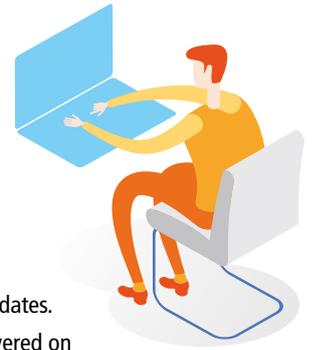
A new building site needs to have a standard set of bins? Users can now simply add new business locations via the customer portal themselves



Customers can use the new portal to ask for the services – that have already been agreed on by contract – to be delivered whenever and as often as they like. If they need one of their bins to be emptied, exchanged or collected, they can request that this be done and select their preferred date with a click of their mouse. Their order is sent to the branch responsible which books the earliest possible date and uses the online portal to provide the customer with updates about the status of their order.



Sign up now and get started:
kundenportal.remondis.de/start



REMONDIS' CONTAINER SHOP

Recycling services – straight into your shopping basket

The company's Container Shop offers a fast and simple solution for people and businesses who only wish to use the REMONDIS Group's services once or on an irregular basis. Having selected the category of waste material, the location and the type of container, users simply put the product they want to hire – whether it be a container for construction waste, a skip for garden waste, or a portable toilet – in their shopping basket and complete the order in the normal way.

A reply is sent within 48 hours to confirm the dates. The product is then delivered on the day and for the period of time requested. Payment is made in advance when the container or skip is delivered or afterwards by invoice. Users can contact the company's branches directly if they have special requirements or need advice.

Click here to reach
REMONDIS'
Container Shop:
remondis-shop.de



REMEX GRANOVABAU

Sustainable building practices – for everyone

REMONDIS' subsidiary REMEX Mineralstoff GmbH has developed not just one but two new apps to provide fast and easy access to information about whether recycled aggregate can be used for a particular building project.

The integrated map viewer allows users to call up all the water protection zones in Germany. This information is crucial for determining whether recycled aggregate may be used or not.

The remexit and granova apps inform the users about how recycled aggregate and IBA may be used in earthworks and road construction projects – both from a structural and environmental point of view. Those interested in this material must no longer spend hours researching the various rules and regulations regarding recycled aggregate. The service will, in particular, make work much easier for all those involved in public procurement projects as well as building contractors, planners and construction firms.

Having entered some facts about the project (such as the location and planned design, precise details about the intended use), the users are then sent clearly set out information about whether they are permitted to use recycled aggregate. This is divided up into categories of material and includes a list of safety measures as well as the basic requirements for working with recycled aggregate.

Both apps are available for iOS and Android devices.
remex.de/apps





UMWELT CONTROL LABOR APP

Analysing, measuring, calibrating – with real-time results

No matter whether it involves waste, drinking water, exhaust air or other substances, the demand for reliable analytical data has never been greater or more urgent than it is today. For years now, Umwelt Control Labor – or simply UCL – has been held in high regard across a whole range of industries where it is known as being an independent provider of reliable services thanks to its state-of-the-art laboratories and its full range of technologies.

Customers have benefited from UCL's digital offering for a number of years. This REMONDIS subsidiary operates an app that allows customers to call up the status of their projects

and view the findings of UCL's analysis work whenever and wherever they wish. Besides being able to view the latest and archived laboratory results, UCL's customers can also compare them to specific ceiling values or archived analyses via their smartphone or tablet. If requested, they are automatically notified when projects, samples and parameters have been completed. UCL's service app is available in both the App Store and Google Play Store.



ucl-labor.de/ucl-app



Truck drivers: job application via chat message

Staff recruitment is also becoming increasingly digitised. This service is proving to be especially important for finding new truck drivers. The Group's remondis-fahrer.de website provides a quick and simple route for people to join this profession. The website's integrated chat function has made the application process even easier. A chat window automatically appears as soon as the website is called up and – if the applicant wishes it to – immediately passes on a short version of their application.

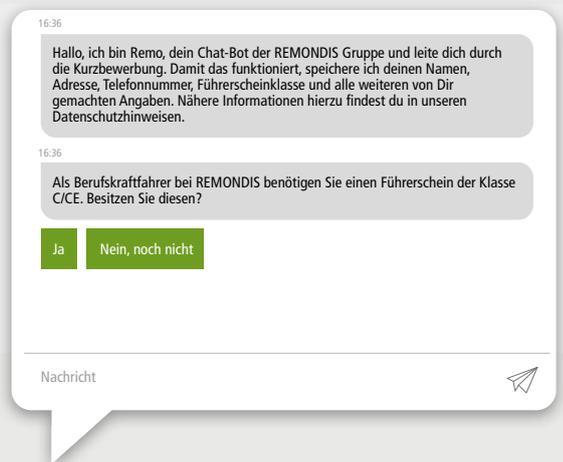
few days. Applicants can, however, take the more traditional route of looking for a job by viewing the vacancies via a search window or on a digital map. Their full application can be sent online using the website's form or via Xing. HGV drivers, therefore, no longer have to face a complicated search for the right job nor do they have to find out if they have the right driving licence or not.

Less than two minutes are needed to answer a few pertinent questions (such as driving licence, name and email address) and then this 'abridged' application is sent to the HR department in the relevant region. Applicants receive an email immediately confirming that their application has arrived and that they will be contacted in person within the next

PROFESSIONAL TRUCK DRIVERS



remondis-fahrer.de



Behind the scenes of the REMONDIS Group

The [#remondis_karriere](https://www.instagram.com/remondis_karriere) Instagram Channel – a recent addition to REMONDIS' digital offering – also provides an insight into the everyday work of the many different professions available at the Group. A variety of authentic stories by and about the people working in the company's many different divisions show – live and in colour – just how diverse the corporate culture at REMONDIS is.



A clinical waste guide

ABFALLMANAGER-MEDIZIN.DE: GERMANY'S FIRST CLINICAL WASTE GUIDANCE WEBSITE NOW ONLINE

Go online to
find out more:

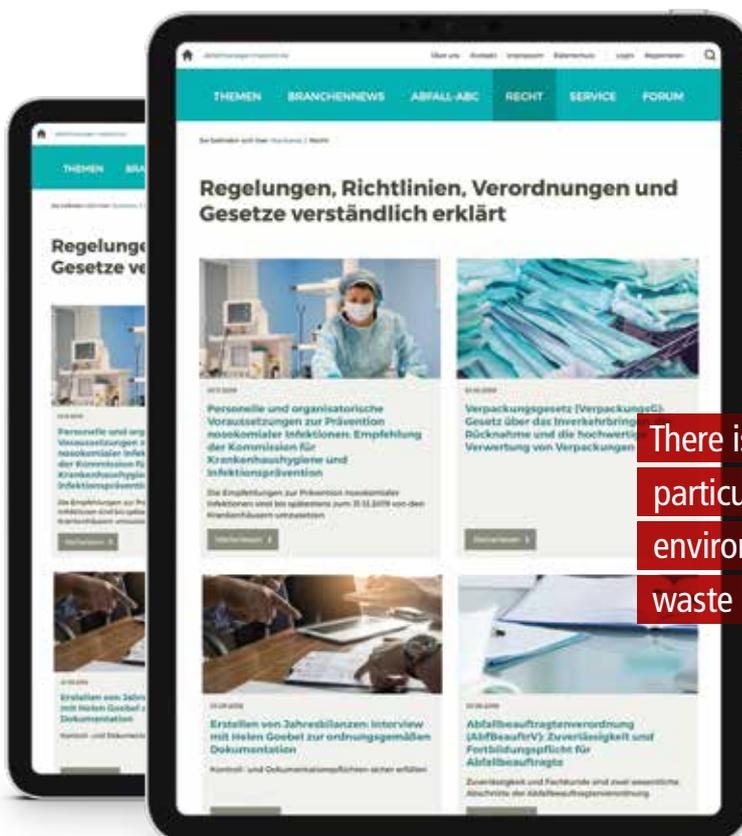


abfallmanager-medizin.de

How are cardiac catheters recycled? What do ambulances do with their contaminated waste? Which hazardous substances are generated at laboratories? Germany's new online magazine 'Abfallmanager Medizin' [Clinical Waste Manager] has the answers to these and many other questions about the different types of clinical waste and how they can be recycled or disposed of.

But that's not all. This website also contains first-hand personal experiences, a wealth of legal information and efficient waste management solutions, making it the first port of call for all waste management officers and hospital managers.

Moreover, it regularly uploads free information about the latest developments and statutory regulations affecting this industry in order to help promote effective, cost-saving waste and environmental management systems. There is a growing need – at hospitals, in particular – to cut costs, address environmental issues and set up smart waste management systems. This informative portal was initiated by REMONDIS Medison, the leading specialists for collecting, transporting, storing and treating clinical waste.



There is a growing need – at hospitals, in particular – to cut costs, address environmental issues and set up smart waste management systems.

Redooo goes Down Under



REDOOO, A DIGITAL B2C AND B2B PLATFORM PROVIDING ACCESS TO FAST AND EFFICIENT RECYCLING SERVICES, IS NOW AVAILABLE TO PRIVATE INDIVIDUALS AND COMPANIES IN AUSTRALIA AS WELL

The Redooo platform has been online in Australia since October – initially in Brisbane, the capital of Queensland, and now throughout the country. While the recycling sector may be one of the more down-to-earth industries, one that is perhaps not crying out for a technical revolution, this does not mean that it has ignored the benefits of digital processes.



The goal here is to provide a quick and simple way for both commercial and private customers to get in touch with companies providing recycling services. The number of online customers should steadily grow and there is practically no limit to the range of products and services that can be offered. What's more, everything operates in real time – even the quote sent to the customers. Redooo helps companies and private individuals to find the most suitable certified provider for the recycling service they are looking for. This online tool provides the support needed to process the orders digitally, whether it involves recycling construction waste or other types of waste material or ordering bins or skips and arranging for them to be collected. The product range has also been expanded to include other services: besides being able to put in single orders for skips (available for eleven different types of waste materials), customers in Australia can also book products or services online that should be provided regularly on a long-term basis, such as supplying bins and containers or cleaning fat separators and septic tanks. The service or product is then delivered at the time requested by the customer and payment is also made online.

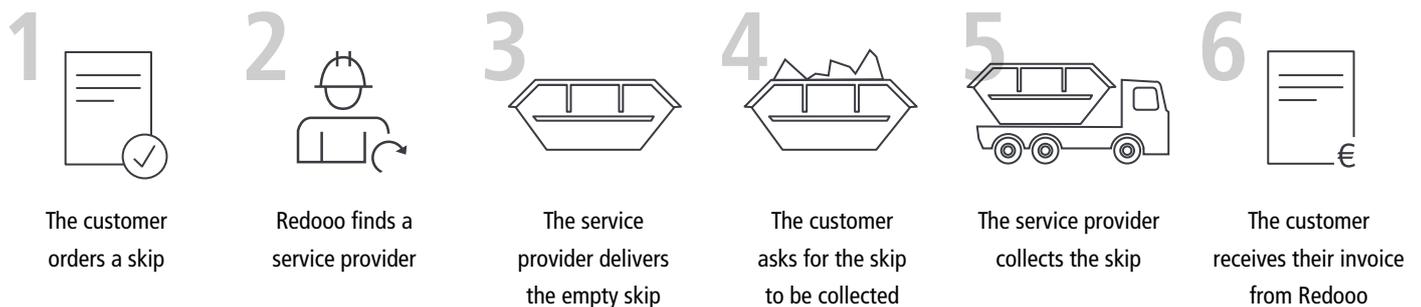
Redooo helps companies and private individuals to find the most suitable certified provider for the recycling service they are looking for.

Throughout the process, therefore, focus is put on the needs and wishes of the customer. With a network of over 1,500 service providers in Australia, Redooo is able to identify the best partner for the service needed – based on reliability, price and proximity to the customer. A special tool has also been developed to enable customers to rate the quality of the service they received.

Find out more about Redooo Australia at redooo.com.au



"The first month has gone well. We had 1,659 visitors and around 2,000 page views. That's not bad considering the fact that there are 16 other competitors out there offering similar digital platforms and online shops," commented Daniel Natrup, the project manager in charge of Redooo Australia. Besides being available via standard browsers, the Australian Redooo platform can also be accessed using an app that has been developed for iOS devices.



Norbert-Rethmann-Platz

1

Norbert-Rethmann-Platz in Selm officially named

MAYOR MARIO LÖHR THANKS NORBERT RETHMANN FOR
HIS OUTSTANDING DEDICATION TO THE COMMUNITY

The SARIA Group moved into their new head office in September – a building which is also home to the RETHMANN Group's administration offices. The newly renovated square in front of the building has now been named after the former long-standing chairman of the board of directors and supervisory board Norbert Rethmann, who is today the honorary chairman of the supervisory board of the RETHMANN Group. The official naming ceremony was attended by the Mayor of Selm, Mario Löhr, as well as by members of the Group's supervisory and management boards.

The RETHMANN Group's head office has been located on Werner Straße in Selm for decades now. The "Norbert-Rethmann-Platz" [Norbert Rethmann Square] next to the new head office building has now been officially named by the Mayor of Selm, Mario Löhr. During his speech, he made special mention to the close ties that both Norbert Rethmann and the Group have to Selm: "Social responsibility has always been one of your priorities. You have never forgotten your home town – helping us, for example, to keep the important landmark Burg Botzlar [Botzlar Castle].

Having had the pleasure of being able to give you the Freedom of the City back in 2015 in recognition of your great commitment to Selm, it is now a great honour to present you with the Norbert-Rethmann-Platz street sign on behalf of Selm council."

Norbert Rethmann was visibly moved by this gesture and thanked all those attending: "This is a huge honour for me. Selm is my home and – even if my wife and I now live for the most part in Mecklenburg-Vorpommern and I spend much time travelling – we still have very close ties to Selm and the surrounding region. It means a great deal to me to know that this feeling is mutual." He thanked his wife, sons and his incredibly dedicated employees for their support, all of whom, he said looking back, have worked so hard to help develop and grow the company.

It was a great pleasure for Norbert Rethmann (right) to take part in the naming ceremony held by Julia Löhr and Mario Löhr, Mayor of Selm (left to right)



More raw materials from recycling

RESOURCES COMMISSION IN FAVOUR OF A MINIMUM SUBSTITUTION RATE

Whenever discussions are held in Germany about recycling, they are always limited to how much of the material at the beginning of the chain is passed on for recycling, whichever type of processing this may be. At no point, however, have steps been taken to determine to what extent the recycled raw materials are then actually fed back into production cycles. At present, approx. 15% of the total demand for raw materials in Germany is covered by recycled raw materials. With the global consumption of raw materials continuing to steadily grow, it goes without saying that this figure is too low. What is the best way then to encourage the use of recycled raw materials?

The KRU [Resources Commission at the German Environment Agency] recommends that a minimum substitution rate for the use of recycled raw materials should be introduced for manufacturers and industrial businesses to achieve just that. Such a rate would provide a realistic benchmark to measure the success of recycling systems, as it would give a clearer picture of the ratio between the use of recycled raw materials and overall demand for raw materials. What's more, this would create an incentive to deploy more recycled raw materials, which, in turn, would benefit the climate and help conserve natural resources. The current system of limiting minimum recycling rates to volumes of input and output only shows one side of the story and does not influence in any way how many of these materials are actually used in production processes.

By introducing a minimum substitution rate, it would be possible to measure the exact volumes of recycled material that find their way back into products. The Resources Commission recommends that such a minimum rate should initially be set at national level and for individual materials and elements. Over the medium to long term, it would then be good to see a detailed breakdown across different industries and for specific product groups. Furthermore, such a substitution rate could deliver information about which primary materials and which functions have been substituted, helping to ascertain the quality of the recycling systems.

Call for minimum recycled content

A further important recommendation made by the Commission is the introduction of minimum recycled content in individual products. In its position paper, the KRU argues that transparent and ambitious recycling standards should be set that go beyond the current minimum waste-related recycling rates. The first step would be to clarify whether concrete minimum recycled content targets can be set for certain product groups. It would certainly be good for tackling climate change. Experts estimate that emissions of CO₂ equivalents would be cut by around 60 million tonnes if the German industry were to double the volume of recycled raw materials used in their production processes from the current 15% to 30%.

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Choosing the right firefighting equipment

REMONDIS' NEW CATALOGUE DEDICATED TO FIRE SAFETY EQUIPMENT

REMONDIS®
WORKING FOR THE FUTURE

Fire safety and fire prevention are, quite literally, a hot topic. More and more people are talking about the potential danger of both lithium ion batteries and contaminants such as aerosol cans and tins of paint as they considerably increase the risk of a fire breaking out. One of REMONDIS' top priorities is to protect its recycling infrastructure against fires – and not just since the number of fires faced by the industry has increased so significantly. Working closely with TSR, REMONDIS' regional Rhineland branch has now brought out a fire safety catalogue for the whole of the REMONDIS Group in order to make fire prevention easier for the staff and managers across the whole of the network.

It is essential to have the right firefighting equipment if a fire is to be put out quickly



Efficient fire prevention and firefighting equipment is particularly important at industrial businesses handling flammable substances. With the recycling sector treating a whole range of materials, from paper to plastics and metals, to liquid industrial residue, it has a responsibility to ensure the country's recycling infrastructure remains intact – for its own sake as well as for others. All too often, however, recycling plants find themselves having to tackle fires.

"Every fire is small when it starts," explained Carsten Koch, head of fire safety at REMONDIS Rhineland. "The first steps that are taken to tackle a fire are absolutely crucial. And these can only be effective if you have the right equipment." Being an experienced firefighter and long-standing member of the Lippe Plant's fire station in Lünen, he knows all about this subject. "You have to look at the specific requirements of the business you're running to be able to decide what equipment you need to buy and these are often very different to the equipment used by local fire brigades."

"The first steps that are taken to tackle a fire are absolutely crucial. And these can only be effective if you have the right equipment."

Carsten Koch, Head of Fire Safety at REMONDIS Rhineland

Conventional fire extinguishers not enough for the industry

He decided, therefore, to take a closer look at this subject to make it easier for REMONDIS' different business locations to get hold of the right equipment. Cooperating closely with TSR, he has put together a catalogue containing all modern – and in some cases very specialised – firefighting equipment. This catalogue not only includes fire extinguishers, foam extinguishers, fire hoses, couplings and jet and spray branch pipes but also a wide range of devices for protecting the environment during a fire. "Capturing the water used to fight the flames both during and after a fire is always a sensitive subject," Carsten Koch continued. Which is why the catalogue also offers a selection of binding agents, covers, mobile firewater barriers, collection tanks and water pumps that can handle foreign objects up to 65mm in size. One item in the catalogue has already caught the attention of many people because of its amusing name: the famous GullyEi [drain egg] – a standard piece of equipment used by many businesses in the Rhineland region for sealing drains in the event of a fire or emergency. "By offering such a wide range of specialist equipment, this easy-to-use catalogue provides the managers in charge with a large selection of tools, enabling them to react quickly and effectively should a fire break out," Carsten Koch concluded with a confident smile. "It goes without saying that it also contains personal protective equipment."

The REMONDIS Group's own fire safety catalogue

All of the articles have been tried and tested in the field. Anything that was unable to cope with the high standards was excluded from the catalogue. "I've personally tested all of the equipment at least once," Carsten Koch said proudly. "In some cases, several tests had to be carried out on the different kinds of firefighting foam and fire extinguishers." The catalogue is going to be regularly updated and adapted to REMONDIS' changing needs. "We will always find ourselves having to tackle new challenges – such as the droughts and high temperatures we've had over the last few years. Last year, for example, we put together a water mist system for cooling screening material and containers. And let's not forget the growing problem we're having to face with lithium batteries being thrown away into the wrong bin," he added. Tests are currently being carried out on a water mist-gel extinguisher – an idea thought up by Carsten Koch – and the results have been promising so far. There is no other extinguisher like it on the market for lithium batteries. "The water mist stifles the acid fumes and gases caused by the fire and extinguishes the flames. The gel cools the cells preventing the fire from spreading." Fire blankets for stackers

and containers are also being tested at the moment. Electric stackers are covered with the blanket during the loading process to extinguish the flames should a fire break out as well as to prevent them from spreading. "Tests are currently being carried out in the lab to confirm the effectiveness of the blanket in putting out fires caused by lithium ion batteries independent of any particular manufacturer. Such a product could be used in a whole host of situations. Containers used for storing highly flammable substances or materials prone to self-ignite could, for example, be covered with such a blanket to prevent fires breaking out or spreading," Carsten Koch commented, looking ahead into the future. Other bigger tests are being conducted as well.

Over the last few months, a variety of tests have been performed on an "extinguisher turbine" that has a system similar to that of a snow cannon. Equipped with infrared technology for early fire detection and a mixing system for extinguishing foam, this "turbine" is a perfect fire extinguisher that can discharge a wide range of extinguishing materials (from water mist to a solid stream) and, if necessary, from a great distance.

A special water mist-gel extinguisher is currently being developed to combat the growing problems the industry is having to face with lithium batteries



Optimised costs included

Fire prevention also involves getting work groups together to take a close look at the subject of safety, something the team around Carsten Koch are more than happy to do. "It's really important that we get to hear people's feedback, suggestions and wishes. For the catalogue to be a success, we need our colleagues to pass on their first-hand experiences with the equipment and to let us know their exact requirements," he stressed. What's more, the catalogue is a good business tool. The purchasing department regularly holds price negotiations with the manufacturers and analyses the sales figures. The catalogue, therefore, offers two major advantages: it increases safety standards in the area of fire prevention and improves cost control at the same time.



The catalogue provides all of REMONDIS' branches with the best possible overview and maximum cost control

Zero-emission waste collections in Bremerhaven

BREMERHAVENER ENTSORGUNGSGESELLSCHAFT MBH (BEG) PRESENTS ITS FIRST ALL-ELECTRIC, BATTERY-RUN VEHICLE



The first all-electric, battery-run refuse collection truck has been out and about on the City of Bremerhaven's roads since the end of October. This vehicle is being sponsored by the "BEAR" project [Battery-run waste collections with robotic support] as part of the Energy and Climate Fund run by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. This pilot project represents a major step towards achieving a zero-carbon waste collection service in Bremerhaven as well as towards tackling climate change.



The keys were handed over to BEG managing directors Stefan Ketteler (3rd right) and Dr Adissou Makonnen (2nd right) during an official ceremony

"Together with the manufacturer FAUN's help, we are fulfilling the target of the BEAR project – namely to develop and operate an all-electric, battery-run refuse collection truck – in the best possible way," explained Dr Adissou Makonnen, managing director of BEG. "The auxiliary systems in the vehicle, such as the air conditioning, power assisted steering, compressed air supply system and on-board power supply, have also been replaced with electric-powered systems," he added. The truck can reach speeds of 80 km/h and is fed the energy it needs – for the engine, bodywork and lifter – from a fast rechargeable battery pack. The company has installed a high performance rapid charger unit, which is being supplied with electricity straight from the waste incineration plant.



BEG has been using two electric Smart cars and running a number of charging points since 2013

Prototype to be tested for 12 months

This prototype vehicle is to be trialed in Bremerhaven for at least twelve months. Data will be recorded throughout the test period to see how cost effective and reliable it is as well as to measure the impact it has on the climate and environment. Afterwards, the project findings should then be transferred to larger electric commercial vehicles being used in other areas such as inner-city logistics. "By the end of the twelve months, we are hoping to be able to make a valid and verifiable statement about how batteries should be designed in such vehicles. The goal should be for the batteries to be used for at least eight years," Dr Makonnen continued. A general tool for planning battery capacity is to be developed with this goal in mind.



“Together with the manufacturer FAUN’s help, we are fulfilling the target of the BEAR project – namely to develop and operate an all-electric, battery-run refuse collection truck – in the best possible way.”

Dr Addissou Makonnen, Managing Director of BEG

REMONDIS is testing all alternative types of fuels

REMONDIS is trialling other carbon-neutral waste collection technologies besides e-mobility. Last year, for example, it and its cooperation partners GVG Rhein-Erft, Zukunft Erdgas and IVECO launched a pilot project to test biogas-fuelled vehicles in and around the City of Cologne. At the moment, this zero-carbon fleet, which currently consists of six vehicles, is being deployed in Pulheim and Erftstadt – and has a number of plus points over a conventional diesel-run fleet: both its long-term potential to improve air quality (it emits practically no particulate matter or NOX emissions) and the fact that it is so much quieter give every indication that zero-carbon mobility is possible. Greater volumes of biomass can be expected in the future now that German law has made it obligatory for organic waste to be collected separately. This, of course, is another argument for further developing the concept of biogas-fuelled trucks. The fleet’s tanks are being filled with this climate friendly fuel at a new natural gas pump in Hürth and the time needed to do this is not much longer than would be needed to fill a diesel tank. This is one of the REMONDIS Group’s pioneering projects and it has attracted much interest both from other regions and from the company’s partners.

Düsseldorf-based Awista, a public private partnership between the city council and REMONDIS, have for example already purchased three biogas-fuelled refuse collection trucks.

What’s more, the idea of using surplus wind energy in the future to produce carbon-neutral hydrogen is also being looked into, especially in the north of Germany. This would mean that a zero-carbon waste collection service could also be provided by fuel-cell vehicles. For this to be possible, however, vehicle manufacturers would have to change the technology in their waste collection trucks and wind-gas plants must be installed to cover this demand for carbon-neutral hydrogen.

Either way, it is possible to set up carbon-neutral waste collection systems in Germany. Greater political will and more initiatives from politicians will be needed, however, if these systems are to be expanded to cover the whole of the country. Local and district authorities must deliberately choose and promote alternative fuels and give them a better standing in their public procurement projects. Being an expert for carbon-neutral waste collection logistics, REMONDIS is there to help and support them with its dedicated staff and practical know-how.

Founded in 2003, BEG is a public private partnership between the City of Bremerhaven and REMONDIS



To date, BEG has three all-electric vehicles: a refuse collection truck and two Smarts



Mobile phone addict? Workaholic? Slipped disc? No, thank you!

REMONDIS' SAFETY CAMPAIGN TEACHES APPRENTICES ABOUT THE CHALLENGES OF EVERYDAY WORK



A small fire in a chemicals lab, backache from sitting in a lorry for so long or becoming addicted to your mobile phone or online games to forget the stress at work. A person's job can involve a whole range of challenges, many of which are not taken as seriously as they perhaps should. REMONDIS' safety division recently launched its new "Safer together" campaign to make the REMONDIS Group's apprentices more aware of these pitfalls and to show them how they can be avoided.



Dennis Kladnik (back row, 2nd right), Head of REMONDIS' Safety Division, together with his team of advisers and experts taking part in REMONDIS' safety campaign

A team of advisers and experts have travelled to five different locations (Lünen, Berlin, Brandenburg an der Havel, Leipzig and Lübeck) since the safety campaign began back in October. They will have visited a total of 15 towns in Germany by the end of the campaign. All of the company's apprentices were given the opportunity to register to attend one the events being held in their region. As a result, 1,000 young professionals such as office workers, lorry drivers and plant employees have been able to learn more about workplace health and safety. The lectures, seminars and simulation games have been divided up into three main subjects. The workshops are being held in cooperation with

the medical insurance company, BIG Direkt Krankenkasse.

The participants taking part in the first workshop, which was entitled "digital addiction", took a closer look at the tricky subject of excessive mobile phone use and online gaming.

Besides learning more about the typical risk factors, they also carried out tests on themselves to see how high their own risk of addiction was. The second workshop focused on showing those taking part how to organise themselves, as job-related stress can be reduced by working in a structured manner. The experts also underlined at this point just how important it is for colleagues to treat each other correctly, to divide up tasks sensibly and to communicate with one another as these all help to alleviate workplace stress. The third workshop turned the spotlight on the subject of "ergonomics", which was particularly useful for both the office workers and the lorry drivers. As well as showing the apprentices what exercises they can do and the best way to sit at a desk or behind a wheel, the expert in charge also taught them all about ergonomics. Having learned how tension actually comes about and just what a positive impact regular exercise has on a person's body, the participants are now more aware than ever of how important exercise is to stay healthy. They also got some physical exercise when they went go-carting wearing 'impairment glasses' or 'beer goggles'. The course had been set up by the fire brigade to demonstrate the danger of drinking and driving.



Consumers happy to separate waste – but with a simpler system

A POSITIVE RESPONSE ACROSS GERMANY TO THE 'GETON ON TOUR' CAMPAIGN

geTon, an environmental initiative launched last year, has made it its goal to provide more information about plastics recycling and to improve waste segregation. Its geTon on Tour campaign, which has taken it across the whole of Germany, has not only been a resounding success, it is also proving to be a great opportunity to get feedback from the public.

The first step to tackling climate change is for us to separate our waste correctly in our own homes. This is the central message of the geTon on Tour campaign and it has received a very positive response across the country. Standing in front of supermarket entrances from Kiel in the north to Munich in the south, the geTon on Tour team have already spoken to over 20,000 people. Working together with local waste management advisers and consumer advice centres, this team of experienced teaching specialists have been spending a whole day in front of a supermarket presenting their programme of information, games and entertainment to members of the public.

"The consumers weren't only interested in taking part in the programme; they also gave us their thoughts on the subject of plastic and recycling. They have three main wishes: less plastic packaging for fruit and vegetables, more information about the packaging and clear, simple rules for sorting old packaging," explained the coordinator of the initiative, Claudia Fasse.

REMONDIS, one of the companies involved in founding geTon, was particularly pleased to see just how great the interest has been in this campaign. "Separating waste correctly at source in people's homes is one of the most important ways to help curb climate change. Every tonne of recycled plastic produced from old sales packaging reduces carbon emissions by up to 1.6 tonnes. Which means, of course, that this initiative reaches the right people – and gets everyone talking together," commented REMONDIS managing director, Herwart Wilms.

The geTon initiative unites companies from all stages of the plastics life cycle: the packaging manufacturer Alpa, the brand firm Procter & Gamble, the retailing business Schwarz Group, the 'dual systems' der Grüne Punkt, Interseroh and PreZero and, last but not least, the recycling companies REMONDIS and ALBA. The goal of the geTon initiative is to minimise consumption of crude oil by avoiding the use of packaging in the first place and promoting the correct separation of waste (i.e. ensuring recyclable materials are put in the recycling bin) in order to help tackle climate change.



geTon

To discover more about the 'Gelbe Tonne' initiative go to get-on.org



Seeing the bigger picture

REMONDIS MANAGEMENT TEAMS DISCUSS THE CURRENT STATE OF THE INTERNATIONAL RECYCLING SECTOR AND ITS FUTURE

REMONDIS®
WORKING FOR THE FUTURE

REMONDIS managers travelled to Germany from over 20 different countries to take part in the company's International Management Meeting, which was held at Wellings Parkhotel in Kamp-Lintfort from 14 to 16 October 2019. Once again, the event proved to be a great opportunity for them to discuss the recycling industry and the latest developments in their various countries. Right from the start, the motto of the meeting – "Make change happen" – emphasised the need for businesses to adapt to changing conditions as quickly and as effectively as possible. As had been the case in the past, the growing demands of climate change were something that united everyone, no matter where in the world they were based. The increasingly tough political landscape caused by the current trend towards populism and isolationism was also a topic that led to a lively discussion, which was held in German and English and moderated by REMONDIS press spokesperson Michael Schneider.

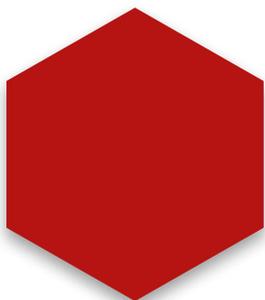
The international meeting began with a tour around the Cuno gas and steam turbine power plant in Herdecke. This power station has had a turbulent history and has been on the brink of closure several times. It has, however, succeeded in holding its own by swapping over to a gas firing system – an important step considering climate change and the country's decision to pull out of coal. Having seen this great example of a business successfully adapting to market changes, the group returned to Kamp-Lintfort, where REMONDIS board member Egbert Tölle held his opening address, officially welcoming the participants and outlining the growing challenges being faced by the Group's international branches. The keynote here: with all due respect for the latest political, cultural and economic challenges, it is vital to never lose sight of the company's long-term business success. Day 1 of the event was rounded off with two interesting speeches.

Carsten Fritsch, a commodity analyst at Commerzbank AG, first spoke about the development of international commodity markets. Prof. Enzo Weber, head of the 'Forecasts and Macroeconomic Analyses' research department at the Institute for Employment Research (IAB), then took a macro-economic look at the development of the job market.

Much of the second day consisted of lively panel discussions that saw all of the participants joining in. A number of pressing topics were discussed such as the possible introduction of a dual system for collecting sales packaging in Russia and other countries based on the scheme currently used in Germany, in which REMONDIS plays an active role. The growing digitisation of the recycling industry was also talked through – with the introduction of Redooo in Australia and Turkey taken as a successful example.



It's all about communication. Mutual understanding and an analysis of best practice cases from the different countries will inspire the participants to further develop their own business



It soon became clear that there could be no simple or standardised answers as to how REMONDIS should react to the latest political developments, such as Brexit. Business in general is becoming increasingly difficult in many countries and firms cannot simply wait for a shift in political attitude or for more favourable regulatory changes to be introduced. What is needed now is for companies to play an active role in reshaping the economic landscape and in adapting their business. The discussions continued over dinner, which was attended by REMONDIS board chair Ludger Rethmann, Thierry Mallet, board chair and CEO of the Transdev Group, and his colleagues from the board of directors and supervisory board, Antoine Colas, Henrik Behrens, Bruno Charrade, Marcos Garcia, Dr Werner Kook and Christian Schreyer.

Once again, the International Management Meeting goals were more than met: networking, talking to one another and exchanging experiences with international colleagues. By seeing the bigger picture, REMONDIS will continue to be a success on the international stage as well.



When take-off is a thing of the past

TSR HELPS DISMANTLE TWO A340 AIRBUSES

The dismantling of the two A340 Airbuses at the decommissioned airport in Parchim was a cross-divisional and cross-company project for both TSR and REMONDIS

When a plane has been permanently grounded, it does not mean that all of its parts have become obsolete. On the contrary, there are many components that can still be used: the landing gear, engines, navigation and communication instruments and many other pieces can be removed, carefully checked and, if they pass the test, given a certificate allowing them to be used as spare parts. However, at the end of the process, there are still large volumes of metal and recyclable materials left over. Which was why TSR took a closer look at the possibilities of recycling and marketing these materials when two A340 Airbuses were dismantled recently.

With old planes normally being sent to businesses abroad where they are scavenged for spare parts, it has been practically impossible to recover the unused raw materials.

To be able to do this work, TSR Recycling GmbH not only had several different departments working on the project, it also collaborated with REMONDIS and the airplane recycler MoreAero. The long-term goal here is clear: to draw up a sustainable and comprehensive plane recycling concept that enables previously unused raw materials to be recovered for reuse. The trickiest part of the project? To transport the two dismantled China Eastern Airbuses from the decommissioned airport in Parchim (Mecklenburg-Vorpommern) to TSR's branch in Hamburg. "We're really pleased to have had MoreAero's help here as they're so experienced and know about and meet all the red tape requirements affecting companies working in airline operations," commented André Zick, TSR branch manager

(2. Hafenstraße) in Hamburg. With old planes normally being sent to businesses abroad where they are scavenged for spare parts, it has been practically impossible to recover the unused raw materials. The second challenge: the manufacturers do not provide information about what, where or how many materials and hazardous substances have been installed in the planes.

The stages needed after this – such as shredding and recycling the materials – are normal everyday work for TSR and REMONDIS. "We were able, for example, to recover around 130 tonnes of aluminium from the planes. REMONDIS took over the task of recycling the other substances such as plastics, mineral fibres and operating materials," explained Dr Sebastian Jeanvré, project engineer at TSR in Lünen. Tim Wilms, project manager and key account manager at TSR, summed up the project: "Dismantling airplanes is a really exciting subject as far as we're concerned. It would allow us to enter a new and innovative field and enable us to recover raw materials so they can be reused. We would also be filling an important niche market in Germany. Such projects are also a great way to learn more about the different models of airplane and the type and quality of materials used to make them and a useful opportunity for us to sound out the potential of this business," he added.



TSR

THE METAL COMPANY

MORE AERO

AIRCRAFT RECYCLING SERVICE WORLDWIDE

REMONDIS Recycling acquires Pakufol and Depner

SERVICES PORTFOLIO EXTENDED TO INCLUDE THE RECYCLING OF PE-LD PRODUCTS

REMONDIS Recycling GmbH & Co. KG has taken over all shares in Pakufol Folienprodukte GmbH, Depner Vermögensverwaltung GmbH & Co. KG and Depner Verwaltungs GmbH as part of a share deal, with retroactive effect from 01 January 2018. The acquisition was completed on 14 November 2019.

By recycling low-density polyethylene (aka PE-LD), REMONDIS Recycling has achieved vertical integration along the supply chain – reflecting the comprehensive developments and on-going efforts being made by REMONDIS to recycle all plastics. With over 30 years' experience, Pakufol is one of the leading manufacturers of plastic sacks in Germany. Pakufol's products are stamped with the Blue Angel, the ecolabel of the Federal German government, and are – for the most part – made from recycled plastic film. The company's former managing partner, Peter Depner, has been appointed managing director of Pakufol Folienprodukte GmbH. Dagmar Depner will also continue to support the firm's customers and employees.



High quality blow moulding plants are used to produce easy tear, high stretch plastic film

A further step towards 100% plastics recycling

With PE-LD making up the largest share of all plastic waste produced in Germany, this addition to its portfolio, i.e. recycling and producing this plastic, is an important diversification for the company. REMONDIS Recycling's subsidiaries, such as RE Plano GmbH and REMONDIS PET Recycling, already have a wealth of knowledge of plastics recycling – especially in the production of high quality recycled raw materials that include flakes, pellets and compounds.

"In the past, we supplied other PE-LD recyclers around the world with old plastic film. We will now be able to recycle it ourselves and use it to manufacture plastic sacks made of 100% recycled plastic," explained Ralf Mandelatz, managing director of REMONDIS Recycling. Thanks to this acquisition, REMONDIS has closed a further gap as it heads towards achieving its goal of 100% plastics recycling.

Pakufol's sacks are stamped with the Blue Angel ecolabel and are, for the most part, made of recycled plastic film



With over 30 years' experience, Pakufol is one of the leading manufacturers of plastic sacks in Germany.

Digester supplies Sinsheim with biomethane

AVR AND REMONDIS ARE HELPING THE REGION TO SWITCH FROM FOSSIL TO RENEWABLE ENERGY

AVR's new organic waste digester and multi-stage recycling concept most certainly meet all sustainability and efficiency criteria. This plant is also a prime example of environmentally friendly resource recovery and recycling that unites regional climate protection with a robust and profitable business. "In the past, rubbish was simply rubbish. For a long while now, though, waste materials have been an important source of energy," commented Undersecretary Baumann from the Ministry of the Environment during the official opening of the plant in September. "Germany has so few natural resources of its own. Our country has deliberately chosen to collect recyclables and recover the raw materials for re-use or to generate energy and consequently to use modern technology to transform waste into climate-friendly energy. This is a path that is both logical and future-proof."



All the people involved in the project – the Sinsheim-based AVR Group and its partner REMONDIS, the various political bodies and, in particular, District Administrator Stefan Dallinger – consider AVR's new organic waste digester in Sinsheim to be a flagship project for the whole of this German state.

"An important step towards switching the region's energy supply from fossils to renewables has become a reality today. AVR's organic waste digester provides a reliable and long-term waste management solution for the Rhine-Neckar district and helps us get that much closer to achieving our political goals of protecting our climate and setting up our own energy supplies in our region," the District Administrator said as he thanked all those involved in the project and praised their successful teamwork.

"An important step towards switching the region's energy supply from fossils to renewables has become a reality."

Stefan Dallinger, District Administrator

Each year, the plant will produce around

40 million
kilowatt hours of biogas



FACTS & FIGURES

- Total effective area of the biomass digester plant: ca. 22,000 m²

The plant consists of:

- a building for accepting the material & removing any contaminants
- a bunker/building for temporarily storing the material
- the double digester (each chamber: 2,250m³) for producing methane
- the double digestate conditioner/dryer for drying the liquid digestate
- a total of 13 tunnels and three identically built storage tunnels for turning the material into compost



The first sod was cut on 22 February 2018 after months of intensive planning work, complex public procurement processes, painstaking profitability calculations and finally adding some strategic finishing touches. The construction work was then carried out over the following months – just in time so to speak – so that the first trial runs were able to be held on schedule in the spring of 2019. AVR and MVV fed their environmentally friendly biogas into the natural gas network for the very first time on 19 July 2019. Every year, the new AVR plant will treat and dry around 60,000 tonnes of biogenic waste, which will then be marketed by AVR BioTerra GmbH & Co.KG as quality-assured, certified compost. This compost is of particularly high quality thanks to its high fertiliser value, its ability to promote the formation of humus and its high plant compatibility. Local farmers now have access to a long-term supply of sustainable organic fertiliser that can also be used as an alternative to peat by both hobby gardeners and commercial gardening businesses.

REMONDIS is AVR BioTerra GmbH & Co. KG's partner. This family-run company was awarded the contract after winning a Europe-wide tender in the spring of 2017. REMONDIS owns a 49% share in AVR BioTerra GmbH & Co. KG and organised the construction of the organic waste digester as the general contractor to ensure the project would be completed within the planned budget. 51% of AVR BioTerra GmbH & Co. KG remains in the hands of the Rhine-Neckar district authorities.

The raw biogas produced by the digester is sent by AVR BioTerra GmbH & Co. KG to its sister company AVR BioGas GmbH. After the gas has undergone a preliminary cleaning process, it is first transformed into biomethane before being fed into the natural gas network. AVR BioGas GmbH is responsible for the preliminary cleaning and processing stages as well as for marketing the biogas. Each year, the plant will produce around 40 million kilowatt hours of biogas – sufficient quantities to cover the annual requirements of approx. 2,700 households. By preparing and supplying this biogas, the plant provides the region with a flexible and decentralised source of renewable energy that can be supplied exactly where and when it is needed. With its current structure, the natural gas network has access to a huge gas storage facility, something that will become ever more important as the country switches from fossil to renewable energy.

What's more, a 5,000m³ biogas storage tank is also available to compensate for any variations in the volumes of gas being produced and/or fed into the network at the site. The chances of AVR's organic waste digester actually suffering a failure are practically zero as all of its main components have redundant internal components for safety reasons. Not to mention the fact that the whole of the plant is fully enclosed. The negative pressure and numerous biofilter systems make sure that unpleasant smells are not released into the atmosphere.

AVR BioGas GmbH is owned by the Mannheim-based energy supplier MVV Energie AG (41.5%), Stadtwerke Sinsheim Versorgungs GmbH & Co. KG (7.5%) and AVR Energie GmbH (51%). During the opening ceremony, managing director Peter Mülbaier thanked all the partners, stakeholders and employees and gave special mention to REMONDIS' style of conducting business which, he said, was "constructive and cooperative at all times".

The new organic waste digester and its supply of biomethane is a further important step towards helping Germany switch from fossil to renewable energy



Norbert Rethmann, Honorary Chairman of the Supervisory Board of the RETHMANN Group, holding his speech during the official opening of the plant



Container terminal in Cologne: logistics turn to recycled aggregate

A SUCCESSFUL PROJECT FOR B+R BAUSTOFF-HANDEL UND -RECYCLING KÖLN GMBH

REMEX[®]

WORKING FOR THE FUTURE

The government-supported project to extend the North Container Terminal in Cologne for transshipping goods between rail and road began in the spring of last year on behalf of Häfen- und Güterverkehr Köln AG (HGK). Around 75% of the 76,000 tonnes of aggregate needed was covered by recycled aggregate. This, plus the fact that B+R, the supplier of this material, was located so close to the site, has made the undertaking a showcase project for the whole of the logistics sector – both for reducing carbon emissions and for demonstrating sustainable procurement practices.

Having used over 75% of recycled aggregate, the extension of the terminal has become a showcase project for the logistics sector



“One of the special features of this project was the extremely high requirements regarding the subsurface.”

Fabian Kronenberger, Senior Site Manager Schnorpfel



All in all, B+R Köln supplied 56,000t recycled aggregate, 17,500t natural aggregate and ca. 2,500t top soil

The actual construction work involved building more than 8,000m² container storage space, ca. 22,000m² roads, 2,735m railway tracks and 7 railroad switches as well as crane rails built on bored piles for two cranes. “One of the special features of this project was the extremely high requirements regarding the subsurface. It must be able to cope with very heavy loads as around ten trains a day will be loading and unloading containers there in the future,” explained senior site manager Fabian Kronenberger from Schnorpfel, the firm carrying out the work.

The spotlight was also turned on the subject of sustainability when selecting the materials: “As the subsurface will be covered in concrete and/or tarmac and the site is not in a water protection zone, it made sense to deploy recycled aggregate – both from a business as well as from an environmental point of view as this helps conserve natural resources,” Fabian Kronenberger continued. Another even more compelling argument was that this material is just as good if not better than natural aggregate.

Contract awarded to REMEX’s firm B+R

In the end, B+R Köln beat the other companies looking to win the project because it was not only in a position to supply all the primary and secondary aggregate required, it was also able to handle the excavated earth. “We had supplied the first loads of aggregate within just 14 days of being awarded the contract. Our recycling plant is a mere 500m away from the site – as the crow flies. This means, of course, that we are perfectly placed to provide just-in-time deliveries,” said Frank Grasmehr, managing director of B+R in Cologne. The recycled aggregate has been used in a number of sections, for example for the frost blanket and gravel sub-grade under the roads, paths and container storage areas.

130,000 unit loads or

208,000



standard containers will be transhipped at the new terminal in the future

At the very top of Germany

REMONDIS AS-CONTROL SERVICES SEPARATORS 2,962 METRES ABOVE SEA LEVEL

It is the job of separators to prevent dangerous liquids and substances hazardous to water seeping into the ground and possibly contaminating the groundwater. Companies can only be confident that their equipment will do this if they have these systems serviced regularly. This also applies to the highest located separators in Germany – namely on the Zugspitze, the country's highest mountain.

The task of checking and servicing this equipment was given to none other than REMONDIS AS-CONTROL GmbH, a company offering a full range of separator services. These include, for example, emptying and cleaning separators, performing monthly checks, servicing fat separators every twelve months and light liquid separators every six months in accordance with DIN standards as well as carrying out inspection and renovation work as required.

AS-CONTROL masters the challenges caused by the weather and freezing temperatures

"The separators on the Zugspitze had to be inspected in line with the 4040-100 standard for fats and the 1999-100 standard for light liquids. Two of the biggest challenges we had to face here were, of course, their location – high up a mountain – and the freezing temperatures, which were around -10°C," explained Michael Laimer, AS-CONTROL's technical project manager. This meant that AS-CONTROL's operatives could only perform their work in short sessions, especially



Not for the faint-hearted: work was carried out on the light liquid separator which was out in the open around 2,600m above sea level

on the light liquid separator which was situated out in the open around 2,600 metres above sea level. "Besides having to cope with the tricky logistics, our operatives had to master the challenges caused by the pressure ratio and frost depth," Michael Laimer added. Faced with these prevailing weather conditions and temperature changes, the company used special renovation techniques and fibreglass-reinforced plastic to ensure their work was successfully completed.

"Besides having to cope with the tricky logistics, our operatives had to master the challenges caused by the pressure ratio and frost depth."

Michael Laimer, Technical Project Manager at AS-CONTROL

Making the most of nappies



NAPPY RECYCLING PLANT IN THE NETHERLANDS LEADS THE WAY IN EUROPE

Every day, millions of disposal nappies end up in the residual waste bin in Germany alone. Which means they end up at an incineration plant. This is, of course, anything but sustainable: while thermal treatment does indeed generate energy, it also means many other substances are lost to us forever. The Netherlands' latest national waste management plan has taken a closer look at this waste stream to see how it might be recycled. As a result, many Dutch district authorities have already introduced a separate collection scheme for disposable nappies. So far, however, this step has proven to be unsuccessful as the country has not had access to a viable recycling plant able to offer a sustainable, low-carbon nappy recycling process.

REMONDIS Niederlande is now leading the way across the whole of Europe by operating a nappy recycling system in the Dutch city of Nimwegen. This system was developed at the University of Brandenburg and is based on thermal pressure hydrolysis. During the process, which involves

temperatures of 225°C and a pressure of 44 bar, the nappies are melted down as well as incinerated. Consequently, the individual components of the highly complex nappy product – primarily polymers and cellulose – can be separated from each other and recovered.



1 tonne of nappies is transformed into

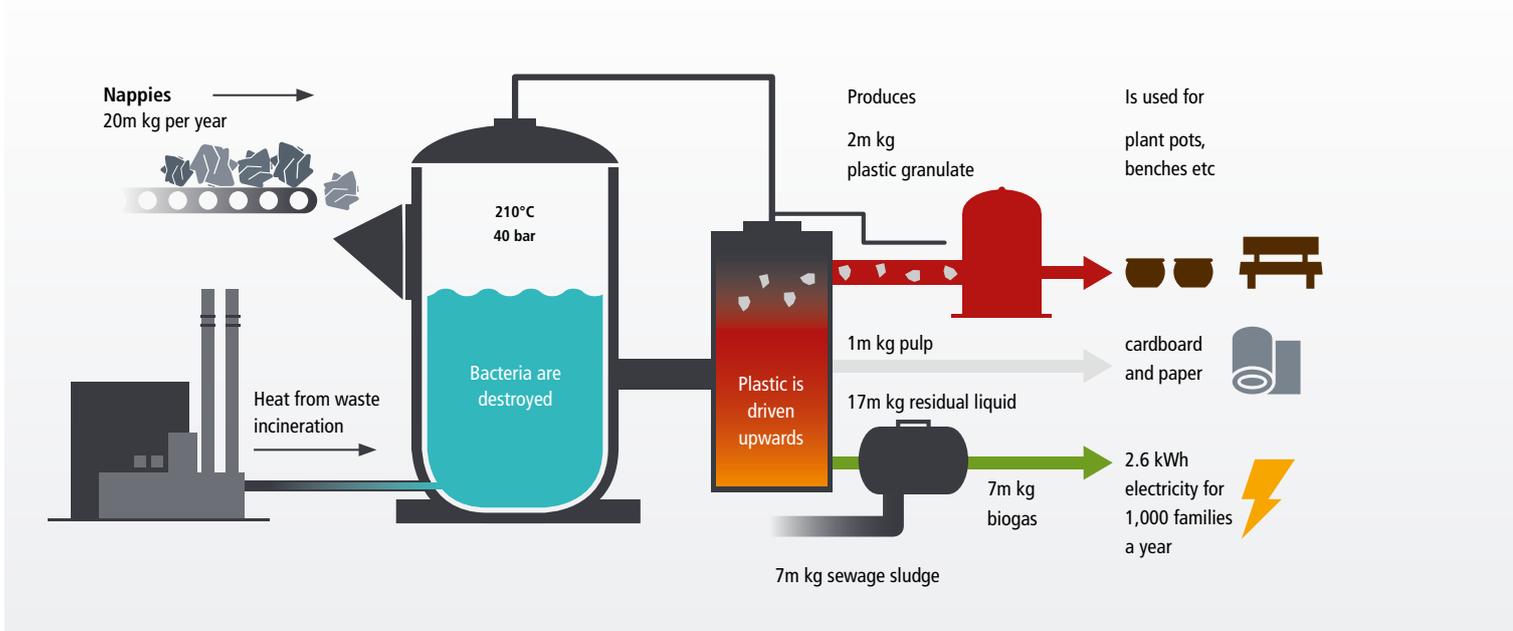
100kg
plastic granules

50kg
pulp



350kg
biogas*

* by adding sewage sludge



So what happens during the nappy recycling process?

“At the end of this process, we have recovered high quality recycled raw materials – in the form of plastic granules and paper – that we can then return to production cycles. Any leftover material undergoes a further treatment process where it is enriched with digested sewage sludge to produce high-purity biogas,” explained Dr Gerd Terbeck, managing director of REMONDIS Niederlande. A small pilot plant had been commissioned back in 2013 to test this system. A deliberate decision was made at the time to start small so that the technology could be gradually optimised over a long test period to get it ready for market. This latest plant, which has been in operation since the beginning of the year, will be able to process 15,000 tonnes of disposable nappies once it reaches full capacity. The local communities will benefit from the plant’s output materials: the recovered plastics can be used to make new products, such as plant pots, and the biogas from the Nimwegen plant can supply up to 1,000 homes with electricity. The paper will be used by paper mills to make new paper and cardboard. “Not only the raw materials, which are recovered and returned to production cycles, help to protect the environment and curb climate change. The actual recycling process itself is environmentally friendly as well. It helps reduce greenhouse gases – our plant will cut carbon emissions by 7.2 million kilogrammes every year,” said Dr Terbeck.

REMONDIS Niederlande – a trailblazer

REMONDIS’ goal is to continue to extend its nappy recycling capacities in order to further promote sustainable development. This is especially important as disposable nappies tend to be the product of choice of most parents of young children and this situation is unlikely to change.

The plant in Nimwegen cuts carbon emissions by 7.2 million kilogrammes every year.

To be able to achieve this goal, the company is already planning to build further plants in the Netherlands. Over the medium term, this process shall, of course, be set up in other European countries. If there is to be a successful disposable nappy recycling system in Germany, for example, then nappies must be kept apart from other waste streams and a separate collection scheme must be introduced across the country. Some European countries have begun setting up such systems but this is not true for the whole of Europe. REMONDIS, however, is setting a good example here by offering institutes, such as hospitals and care homes, waste management concepts that include a separate storage and collection system for absorbent hygiene products.

Besides opening this new nappy recycling plant, REMONDIS Niederlande has also installed an innovative digester plant in Weurt and a district heat network and is actively looking into ways of effectively recycling orange peel.

Switzerland's market leader joins the REMONDIS Group

ACQUISITION OF K. MÜLLER AG STRENGTHENS OPERATIONS IN AND AROUND ZÜRICH



After over 90 years of family history, K. Müller AG was taken over by REMONDIS Schweiz AG, with retroactive effect from 01 January 2019. This company has had its head office in Wallisellen since 1925 – a town situated ten kilometres north of Zurich and 40 kilometres south of Schaffhausen.

Three generations of the same family have managed this recycling company over the years, which offers a wide-ranging portfolio of services for household, municipal, commercial and industrial waste. REMONDIS managing director Peter Nardo is now leading the company, which will continue operating with the same team of employees and the same corporate design. "We're really pleased to be able to keep the tradition of this family-led firm going and to continue offering its customer-oriented solutions in and around Zurich. The acquisition of K. Müller AG will enable us to further cement our market presence. What's more, K. Müller AG's long-standing and experienced workforce will be a great addition to REMONDIS Schweiz's team," commented Peter Nardo.

Thanks to the integration of K. Müller AG, the REMONDIS Group has been able to considerably expand its operations,

in particular around Zurich. Regular waste collection concepts and collection on demand are just two of the many long-standing services that the company delivers to around 160,000 households. The overall concept also allows customers to access many other useful services. They can, for example, have their garden waste bins cleaned when they are emptied. The company also offers a range of maintenance and technical services for bins and containers, hires out machines and gives waste management advice to operators of building sites.

Moreover, the company collects and recycles waste from a total of 40 districts, 800 restaurants and hotels and many different industrial businesses based around Zurich. This portfolio of express services, clearance work or events services will also benefit REMONDIS' other customers in Switzerland. The Mülliland recycling centre – which was opened in 2015 and is much appreciated by the local population as it accepts all types of waste – will continue to be open 24/7 as before. Thanks to its team of 85 employees and fleet of 40 vehicles, K. Müller AG delivers a wide range of reliable services from its 16,000m² business premises.

K. Müller's overall concept includes many specialist services such as bin cleaning, machine hire and express services

With 85  employees, 40 vehicles and a 16,000m² business premises, K. Müller AG is one of the largest recycling companies in the country



Bienvenue à Beauvais !

NEW REMONDIS LOCATION IN THE FRENCH DEPARTMENT OF OISE

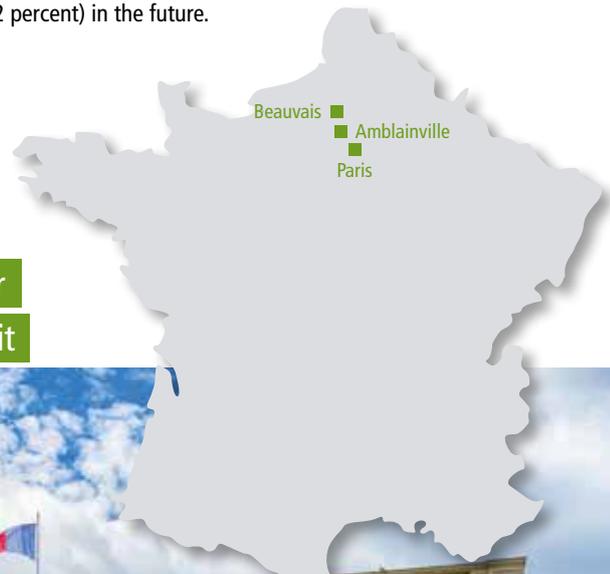
REMONDIS France S.A.S acquired a recycling location from the French family-run firm Decamp-Dubos on 01 May 2019. The site, which has been operation since 2012, is situated in Beauvais, approximately 100 kilometres north of Paris and close to REMONDIS' business in Amblainville.

Marianne Decamp, the third generation of her family to run the firm, handed over the business to REMONDIS managing director Pierre-André Vasseur in the spring. Decamp-Dubos is a great acquisition for REMONDIS. For decades now, the company has built up a solid reputation in the Department of Oise as a reliable provider of recycling services for both commercial and industrial businesses. Its portfolio not only includes collecting commercial waste but also sorting and recycling it. And it is able to carry out all these services itself on site at its 110,000m² business premises. Using its 32 specialist vehicles, crane, hydraulic excavator, fork-lift truck, screw compactor, baler and a variety of container systems, the company stores, sorts and processes the many waste materials it receives.

REMONDIS managing director Pierre-André Vasseur is looking forward to the new tasks at the site and working with the experienced team there. The 50 employees should continue to uphold the company's tradition and make the most of their extensive know-how. "REMONDIS has been operating in France for many years and all of its divisions will benefit from the acquisition of Decamp-Dubos," he commented. Not least because this takeover means that public landfill waste will also be able to be processed by REMONDIS in France (up to 92 percent) in the future.



Dubos was originally founded in 1946 to collect textiles. The business premises was completely destroyed by fire in 2008. The new business was opened in Beauvais in 2012



"REMONDIS has been operating in France for many years and all of its divisions will benefit from the acquisition of Decamp-Dubos."

Pierre-André Vasseur, REMONDIS Managing Director



Large-scale sludge dewatering system at Chemelot Industrial Park

INCREASED CAPACITY AND EVEN MORE RELIABLE OPERATIONS THANKS TO NEW MEMBRANE FILTER PRESS

FILTRATEC®

WORKING FOR THE FUTURE

Sludge dewatering has established itself as a useful alternative to liquid disposal systems. The very most can be made of the cost-effective and environmental benefits of sludge dewatering when both the services and the equipment have been perfectly adapted to meet the requirements of a project. FILTRATEC is currently setting up a future-oriented solution at the Chemelot Industrial Park in the Netherlands – clearly showing just what is possible in this field of business.



FILTRATEC specialises in sludge dewatering, solids/liquid separation, product filtration and sludge and wastewater treatment

Chemelot is one of the largest industrial parks in the Netherlands. Home to around 60 companies and 8,000 employees, it is an important economic driving force in Limburg Province and beyond. Sitech Services B.V. is the park's official service partner and offers a wide range of services that also covers the site's infrastructure. For decades now, it has been working with FILTRATEC in the area of sludge dewatering – a collaboration that has always been shaped by innovations and full-service solutions.

Focusing on customer requirements

FILTRATEC dewateres all of the industrial sludge produced at the park for Sitech. To be able to do this, it currently deploys a stationary membrane filter press that is capable of handling large volumes of material. The facility, which was set up in 2012 and built by FILTRATEC specifically for Chemelot, is operated 24/7, 365 days a year. Its bespoke design combines both the company's many years' experience of filtration services and its findings from carrying out extensive trials. By adapting the facility to the exact requirements of the industrial park, it is able to achieve excellent solid/liquid separation results – i.e. a filter cake with a high dry residue content and a solids-free filtrate. This means – for both Sitech and Chemelot – that the amount of solids left over which have to be sent for disposal is kept to an absolute minimum.

“The industrial-scale sludge dewatering system at Chemelot Industrial Park is an excellent example of how collaboration work can help develop and move projects forward so they are fit for the future.”

Gerd Brückerhoff,
Managing Director of FILTRATEC Mobile Schlammwässerung GmbH



Moving projects forward together

Sitech and FILTRATEC – a partnership lasting over 25 years

Beginning of the 90s

A contract is awarded to ABR, which later merges with FILTRATEC; deployment of a mobile chamber filter press

1995

A treatment facility is set up consisting of two mobile chamber filter presses and a diverse range of additional equipment; total chamber volume: 4.6m³

2011

A concept is drawn up for a stationary dewatering plant with a membrane filter press

The new large-scale press will be able to process up to 600 tonnes of thin sludge every day. The result: 100 tonnes of filter cake, reducing the weight of the material by one-sixth



New large-scale press will double capacity

Having performed such successful work, FILTRATEC has now been given the task of extending its sludge dewatering activities at the park. Besides expanding the scope of services, this project also centres on a second filter press, which will also be designed as a membrane unit. Both presses will be used side by side next year – and will be located in the same area, as the existing plant was designed so that a second system could be added should it be needed.

The sludge dewatering capacities available to the industrial park will have been almost doubled once this new large-scale press is up and running. The size and scale of the new facility take future growth into account. Having said that, though, the extra capacity that is expected to be needed in the future will be useful right from the start. It means the units will be able to cope with any unexpected volumes caused by a sudden increase in sludge production. In the past, mobile units have had to be brought in to treat this additional material. What's more, by doubling the capacity of the units, the company will be able to provide an even more reliable service.

 Using filtration to reduce the volume of material cuts both waste management and transport costs

Optimum equipment design

With over 40 years' experience, FILTRATEC has in-depth expertise in both developing and building practical mobile and stationary filtration units. The equipment, which has often been specifically developed to meet individual customer requirements, is part of the service package and remains the property of FILTRATEC. This means, of course, that its industrial and municipal customers do not have the financial burden of having to invest in their own equipment. Furthermore, it increases transparency and makes it easier for their clients to plan their costs.

High level of expertise for complex tasks

FILTRATEC will operate both filtration units at the Chemelot Industrial Park for ten years via its Dutch subsidiary FILTRATEC B.V. FILTRATEC has been operating in the Netherlands for around 30 years now. The country is one of the most important foreign markets for this filtration specialist, which delivers its services across the whole of Europe. Besides using filter presses, the firm's sludge dewatering division also deploys decanters, including gas-tight three-phase decanters for separating combustible and/or harmful substances. In many cases, FILTRATEC is also involved in manufacturing processes. For example, in the field of metal production where this specialist is able to deliver speciality product filtration solutions so that even aggressive and acidic substances can be filtered.

The units, designed by the company's own engineering department, are built, connected and assembled at FILTRATEC's head office in Voerde, a town in the Lower Rhine region



2012

Commissioning of the filtration plant with a membrane filter press; chamber volume: 6.2m³

2019

Construction of a further additional membrane filter press to grow capacity

2020

Scheduled commissioning of the second membrane filter press; total chamber volume: 12.4m³

A job for the specialists

XERVON IPS REPLACES MEMBRANES AT
ELECTROLYSIS PLANTS

XERVON®
WORKING FOR THE FUTURE

The most notable use of the electromembrane process around the world is the electrolysis of sodium chloride to produce chlorine. If the performance levels of the plants are to be maintained, however, then the membranes have to be replaced regularly – generally every three to six years depending on the current density deployed. XERVON IPS has developed a package of highly specialised services for this particular field of work.

Chlorine is one of the most important basic chemicals. Indeed this substance plays a significant role – either directly or indirectly – in up to 70% of all chemical products. As this chemical is so important, many companies choose to produce the chlorine they need themselves using electrolysis.

The majority of modern chlor-alkali electrolysis plants use the membrane process. This environmentally friendly technology delivers a particularly pure end product. The main disadvantage of this system, however, is that the membranes can only be used for a limited period of time as foreign particles tend to stick to them and disrupt the process. Replacing these delicate membranes is both complex and time-consuming. At the end of the day, an electrolysis plant is made up of 162 elements, all of which must be dismantled so that the membranes inside the system can be replaced.

Specialisation means greater precision & faster work
Around ten years ago, XERVON IPS, a company owned by XERVON Instandhaltung, developed a special package of services to speed up this complex task of replacing membranes and to save its customers both time and money. One of the biggest strengths of these services – which are being continuously optimised and fine-tuned – is that they are so highly specialised. The operatives carrying out the work, for example, are experienced industrial mechanics who have taken part in a specialist training course that looks in detail at the process of replacing membranes. Furthermore, they receive additional training ahead of each individual project to learn all about the specific features of the customer's facility.



Every year,

80 million

tonnes of chlorine are produced around the world using membrane electrolysis plants; production in Germany lies at around

5 million
tonnes a year

XERVON IPS has added a new service this year: processing the sets of screws used in the plant. While to some this work may initially seem to be of little consequence, it does in fact create some major cost advantages for the customers. With each individual electrolysis element needing 74 screws, the whole plant contains a total of almost 12,000 screws. Thanks to this new service, these can be reused after they have been processed, significantly reducing the overall costs.

Helping to cut energy consumption

XERVON IPS' membrane replacement services are in high demand. Replacing the membranes not only gives the customers peace of mind that their plants will continue to function smoothly. It also enables them to upgrade their systems as the old membranes can be replaced with the new generation of membrane that delivers a higher yield without having to increase energy input. The maintenance and installation work, therefore, not only makes sure the plants continue to deliver a top performance, it also helps reduce energy consumption.

Thanks to these measures, the staff have become true experts in their field enabling them to deliver their services faster and with greater precision. These are two major advantages as there is no room for error when it comes to replacing the membranes. Not when they are dismantling the individual elements and not when they are installing the new membranes. Even the smallest of kinks or the slightest damage will affect the way the membrane works. If tiny microparticles get left behind on the anodes or cathodes, then they may cause irreparable damage to the new membrane so that the whole replacement procedure has to be repeated.

Besides dismantling the units and replacing the membranes, XERVON IPS' portfolio also includes carrying out pressure tests on the individual elements, checking the plant parts for signs of wear and tear, examining the coating and, where necessary, performing the recoating work. Once the plant is up and running again, the operatives monitor the operations via a computer, carry out a plausibility check and document all the work they have done.



Being experienced maintenance experts, XERVON IPS specialised in replacing membranes in electrolysis plants – or remembraning as it is also known – a long while ago

REMONDIS takes a look at the City of the Future

POLITICIANS, SCIENTISTS AND BUSINESS LEADERS TRAVEL TO THE REMONDIS FORUM IN SCHWERIN TO DISCUSS "THE CITY OF THE FUTURE – INNOVATIONS AND SUSTAINABLE DEVELOPMENT FOR LOCAL AUTHORITIES AND THEIR RESIDENTS"



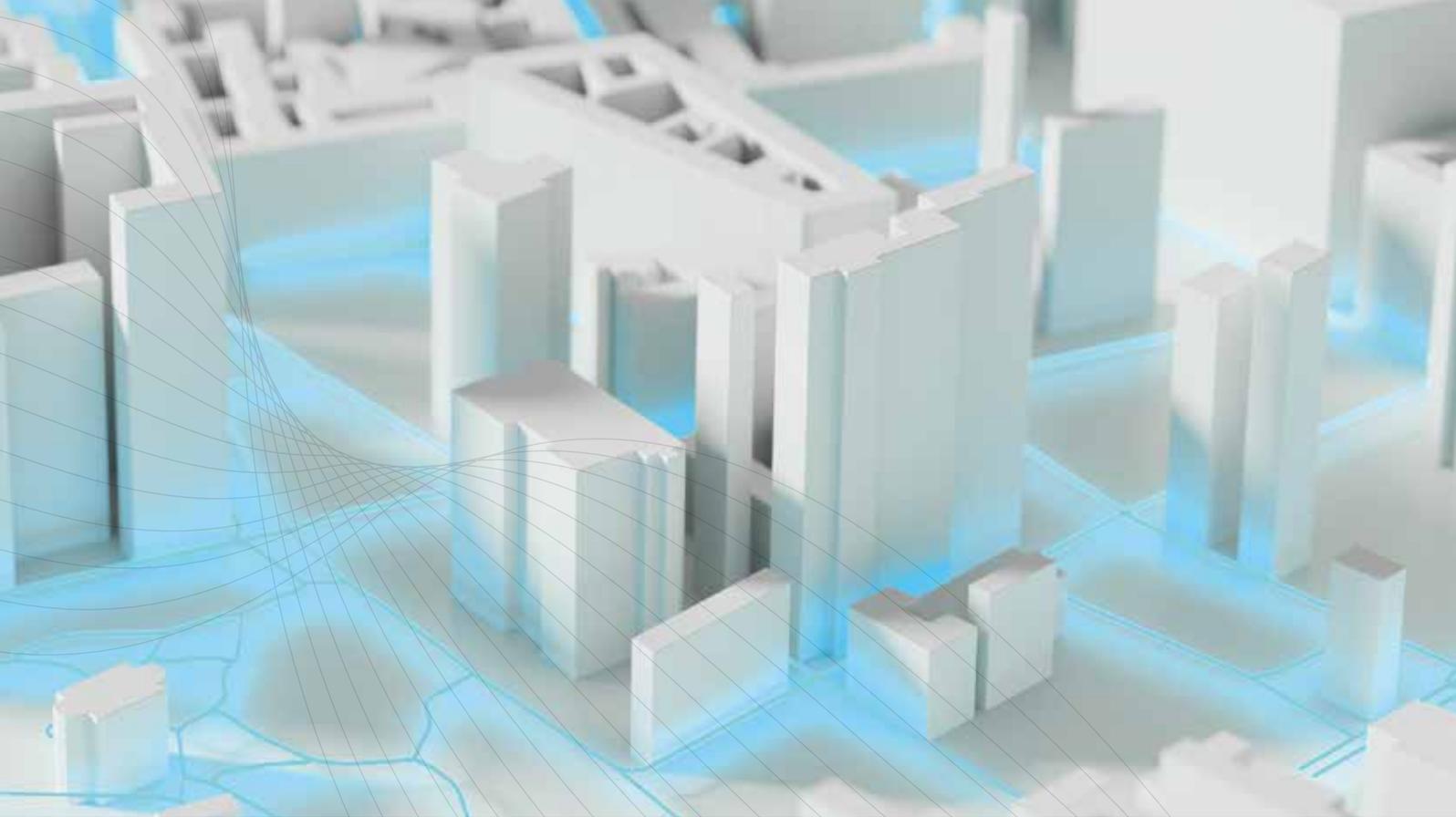
Self-driving shuttle buses, artificial intelligence and low-energy homes are just a few examples of the many innovations we can expect to see in the future. These will not only open up a whole range of far-reaching possibilities, they will also create some major challenges. Large cities and small towns alike will have to make changes to their infrastructure – starting with making the necessary legislation amendments all the way through to finding cost-effective ways to implement them. The worlds of business and politics will have to work together if these challenges are to be mastered in a sensible way.

The 14th REMONDIS Forum, which was held in the City of Schwerin for the second time on 26 September, created a perfect platform for politicians, business leaders and scientists to discuss this issue. The keynote speakers – such as TV journalist and physicist Kristina zur Mühlen, CEO of Microsoft ScaleUp Iskender Dirik and the futurologist Kai Arne Gondlach – shone a light on the current and future challenges faced by society as well as on some exciting innovations.

Benedikt Winkelmann, managing director of Walter Teyard, spoke about the promising innovations that are already available to us and how these could be implemented cost effectively and without too much effort. For example a reliable sensor solution by setting up a LoRaWan radio network. In the morning, Undersecretary Dr Heiko Geue welcomed the guests to the Schwerin Chamber of Commerce and, in the evening, the Mayor of Schwerin, Dr Rico Badenschier, greeted the approx. 250 guests at a networking event held in the Orangery at Schwerin Castle. This proved to be an excellent opportunity for everyone to continue discussing the topics looked at during the day.



Transdev's self-driving shuttle bus is an excellent example illustrating innovation. Transdev's employees answered all the questions that the REMONDIS Forum guests had about self-driving technology



Schwerin is home to Wasserversorgungs- und Abwasserentsorgungsgesellschaft WAG, a company that has been successfully running a public private partnership with REMONDIS since 2003. The city – the capital of the German state of Mecklenburg-Vorpommern – has held a number of events this year to celebrate 20 years of stable drinking water supplies, which included the Mühlenscharn waterworks opening its doors to the public. A very good reason, therefore, for the REMONDIS Forum to be held in Schwerin as well. WAG and REMONDIS Aqua provide a number of vital services including supplying drinking water and treating wastewater.



Undersecretary Dr Heiko Geue welcomed the guests to the Schwerin Chamber of Commerce in the morning



Iskender Dirik, CEO of Microsoft ScaleUp, took the guests on a journey into the future – under the motto "How Artificial Intelligence Will Change Our Everyday Life"



Clean water – sound health

ASKLEPIOS HOSPITAL IN BRANDENBURG SELECTS LAUSITZER WASSER GMBH TO
SUPPLY ITS DRINKING WATER



In July 2019, the family-run ASKLEPIOS Group – Europe’s largest private operator of hospitals – awarded a contract to LWG Lausitzer Wasser GmbH & Co. KG to operate the drinking water supply system at its hospital in Teupitz, a town in the district of Dahme-Spreewald, south of Berlin. The Asklepios Clinic in Teupitz has over 300 beds and specialises in psychiatry and neurology. The centre comprises a clinic for psychiatric, psychosomatic and psychotherapeutic medicine, a neurology clinic and a specialist centre for socio-psychiatric rehabilitation. LWG, a REMONDIS Aqua subsidiary, is now helping to secure the well-being of the patients by supplying them with high quality drinking water.



Clean water is the first requirement for being healthy – this is precisely what REMONDIS Aqua supplies

The hospital has always had its own independent drinking water supply system and it has now commissioned LWG to operate its waterworks, clean water storage tanks and three kilometres of drinking water pipes outside the buildings. All in all, the system covers the requirements of the approximately 500 staff and patients at the clinics. The new contract will also see LWG helping the hospital to implement its decision to invest in two new clean water storage tanks and control technology. LWG already operates such plants in Teupitz to supply the local district with drinking water and manages the drinking water and wastewater billing and accounting processes on behalf of the local water association.

ASKLEPIOS is, therefore, benefiting from the extensive experience of these water specialists. LWG Lausitzer Wasser GmbH & Co. KG, for example, has been supplying the Carl Thiem Clinic with drinking water for decades now. With its 1,203 beds and around 2,500 employees and apprentices, it is not only the biggest employer in Cottbus, it is also one of the largest and best performing hospitals in Germany.

Wasserverband Lausitz Betriebsführungs GmbH, a fully owned subsidiary of REMONDIS Aqua GmbH & Co. KG in Lünen, is also responsible for supplying the health care sector with drinking water. Its customers include the two hospitals in Senftenberg and Lauchhammer owned by Klinikum Niederlausitz GmbH, the many health centres run by Gesundheitszentrum Niederlausitz GmbH across the whole of WAL’s district and the FamilienCampus Lausitz in Klettwitz.

Furthermore, Rheingauwasser GmbH has been responsible for the technical management of the water supply system at the Vitos Rheingau Clinic since 01 January 2018. This project involves Rheingauwasser GmbH (a company managed by REMONDIS EURAWASSER GmbH) operating the hospital-owned equipment, such as its extraction plants, two elevated tanks, a pumping station, a drinking water production plant and a pipe network stretching approx. six kilometres.

Kocaeli's new water

NEW TURKISH PLANT COMBINES WATER TREATMENT AND ENERGY GENERATION

On 01 October 2019, REMONDIS SU, REMONDIS Aqua's Turkish subsidiary, took on a contract to operate the new wastewater treatment plant in the region of Kocaeli for a period of 24 months. With almost 2 million inhabitants, Kocaeli is the tenth most densely populated city in Turkey. And is the country's second-largest city as far as the size of its economy is concerned. This new contract, therefore, not only involves a number of major technological demands, it is also a flagship project for REMONDIS in Turkey.



The newer of the project's two sewage treatment plants, Kullar WWTP, was commissioned in 2018 and is the most modern of its kind throughout the whole of the Kocaeli region. One of the special technical features of this wastewater treatment plant is its activated sludge tank. A one-megawatt solar power system has been mounted on its cover enabling it to use this unusual surface to generate renewable energy. Moreover, some of the treated wastewater undergoes a fourth treatment stage. The treated wastewater is fed through additional sand filters and then supplied to the neighbouring businesses as industrial water. At the same time, it is also used for watering the grounds of this large sewage treatment plant. All of the wastewater is disinfected by using UV light irradiation.

The operations contract was concluded between ISU – Kocaeli General Directorate of Water and Sewerage Administration, which runs a total of 22 wastewater treatment plants, 13 drinking water supply plants and several laboratories, and REMONDIS SU. This agreement for operating the two plants – Kullar Advanced Biological Wastewater

Treatment Plant and Plajyolu Advanced Biological Wastewater Treatment Plant – puts the company in charge of the personnel, laboratory analysis work, maintenance and repair, chemical treatment, waste management, the transport of sewage sludge and the fleet of vehicles required to do this work.

The Kullar Advanced Biological Wastewater Treatment Plant is located in Basiskele, Kocaeli, and can process 83,225m³ of wastewater every day. The plant's system enables the carbons, nitrogen and phosphorus to be filtered out of the water. The sewage sludge is thermally treated in an adjoining incineration plant which produces 8,000,000kWh of energy every year. The second plant, Plajyolu Advanced Biological Wastewater Treatment Plant, is in Izmit, Kocaeli, and processes up to 72,000m³ of wastewater a day. Having been awarded this new operations contract in one of Turkey's fastest-growing regions, REMONDIS SU will once again be able to demonstrate its in-depth expertise of wastewater treatment and show just how reliable it is.

No other plant in Turkey has this combination of modern wastewater treatment and renewable energy production



The Kullar Advanced Biological Wastewater Treatment Plant is located in Basiskele, Kocaeli, and can process

83,225m³

of wastewater every day

The next generation of specialists

Cottbus training centre breaks its own records



For yet another year in a row, LWG Lausitzer Wasser GmbH & Co. KG, a successful cooperation between the City of Cottbus and REMONDIS Aqua, has excelled itself – even in the area of apprenticeships. 21 talented young people began their apprenticeship there in September to become plant mechanics. They were also joined by a further apprentice training to become an electronics engineer for operating technology who should take over from an older colleague in 3 ½ years' time.



'Germany's best plant mechanic apprentice' has come from LWG's training centre seven times already

Marten Eger, technical managing director at LWG, is especially pleased to see the confidence that external companies have in their training programme. Three Brandenburg-based firms have decided to have LWG train their future specialist staff for the first time this year: Nuthe Wasser und Abwasser GmbH from Luckenwalde, Eurovia Verkehrsbau Union GmbH from Kolkwitz and Cottbuser Hochdruck GmbH. Versorgungsbetriebe Hoyerswerda GmbH, a business located in Saxony, is once again relying on LWG's top quality training programme.

"The popularity of our courses can primarily be put down to the training centre's excellent reputation and the recommendations of the firms and associations among each other," Reinhard Beer, commercial managing director at LWG, stressed during the official start to the new apprenticeship year.

In fact, just four of the 22 new apprentices attending the training centre actually come from LWG. The centre's tried and tested concept and the many prizes it has received have led to an ever growing number of external companies using LWG's training centre for their own apprentices. LWG's apprenticeship programme stands out thanks to its wide range of additional courses, such as its driving safety course and the apprentices' participation in special seminars and excursions. What's more, the company gives the participants the opportunity to gain extra skills during their apprenticeship, such as specialist driving licences or specialist qualifications.

363 apprentices

have already completed their course at the training centre since LWG was founded in 1993





Successful integration!

EURAWASSER Nord GmbH in Güstrow can be just as proud of themselves as well. 33-year-old Anton Melnyk completed his apprenticeship to become a pipe fitter this summer with 92 out of 100 points and an overall grade of 'very good' – the best exam results of all the pipe fitter apprentices enrolled at the Rostock Chamber of Industry and Commerce (IHK).



What makes this achievement so special is the fact that Anton Melnyk only came to Germany in November 2014 as a refugee from Ukraine. Even though he did not receive a long-term residence permit, he did what he could to find out about the various apprenticeship and training courses on offer – and took part in a careers open day held by EURAWASSER Nord. He then sailed through the application process and began his apprenticeship to become a pipe fitter in August 2016. As he did not have a valid residence permit at the time, EURAWASSER applied to the Bundesagentur für Arbeit (federal employment agency) for him to get an apprenticeship permit. Despite having been given

this apprenticeship permit, Anton received a deportation notice in October 2016. With the help of a specialist lawyer and the support of EURAWASSER Nord, he succeeded in extending his stay in the country so that he could complete his apprenticeship.

His excellent performance – both in the theoretical and practical parts of the course – has resulted in him being offered a permanent position at the company. Anton, however, is still waiting to hear from the immigration office. The company is doing everything in its power to help this talented young man get an open-ended residence permit.



Anton Melnyk (2nd from right) received a prize for his excellent apprenticeship results from Berit Heintz, Head of the Training and Apprenticeship Department at the IHK Rostock (left), and Mr Klaus-Jürgen Strupp, President the IHK Rostock (right), during a special awards ceremony.

Out of sight, out of mind – REMONDIS and Dortmund police force continue to teach about the dangers of the blind spot



Many people in Dortmund's city centre were interested in what Dortmund police force and REMONDIS had to say



More information is available at runtervomgas.de

Both partners are continuing their public awareness campaign to reduce the number of accidents caused by blind spots. It is not only in the long dark winters that HGV drivers find it difficult to see what is happening on the right or left side of their vehicle. Staff from Dortmund police force and REMONDIS have been travelling around the region to demonstrate how large a lorry's blind spot actually is – especially for refuse collection trucks. They have been spending time at

various schools and even in Dortmund's city centre to make people more aware of the risks. "It is certainly true that the new vehicles have been equipped with a variety of assist systems but we will only be able to achieve the highest safety levels if all road users are truly aware of this problem. Which is why REMONDIS is more than happy to take part in this campaign," explained Tobias Dornhege, the person in charge of this project at REMONDIS.

REMONDIS and NESTE cooperate in the field of chemical recycling



NESTE, the world's leading producer of renewable diesel and renewable jet fuel and an expert for drop-in renewable chemical solutions, have signed a collaboration agreement with REMONDIS to develop chemical recycling as a means to recycle plastic waste. Together, they wish to develop and push forward chemical recycling with the overall goal of creating capacities for processing more than 200 kilotonnes of waste plastic. "It is essential that the recycling and chemicals industries work together closely if chemical recycling is to be operated on an industrial scale. The partnership between REMONDIS and Neste will focus on developing the best possible recycling process so that more plastic waste

can be recycled – whereby this form of recycling must always be seen as complementary to systems that recover and recycle old plastic for reuse," commented Jürgen Ephan, managing director of REMONDIS Recycling.

Mercedes Alonso and Jürgen Ephan



Greater competition in the 'Dual System' market

The industry has been undergoing a change ever since Tönsmeier was taken over by the Schwarz Group (Lidl) and PreZero expanded into the sales packaging market. A number of events have been set in motion – such as REWE, one of the three biggest distributors of sales packaging in Germany, changing its Dual System provider and moving to Reclay. A public announcement was then made in November that ALDI has also changed its Dual System provider and is no longer working with DSD. Listening to those working in the industry, it would appear that other wholesalers are also

considering moving to a different provider. As a result, there has been a huge shift in the market shares of the various Dual System businesses – the likes of which the industry has not experienced for many years. Time will tell to what extent this latest development will impact on the decisions being made now and in the future by the monopolies commission.



REMONDIS wishes to regain its IHK Energy Scouts title

The Chamber of Commerce's (IHK) 'Energy Scouts' project started in October for the third year running. Besides learning their own apprenticeship coursework, 40 apprentices will be given the opportunity to take part in three full-day workshops free of charge to gain additional qualifications in the subjects of climate change and the switch from fossil to renewable energy. These workshops will, in particular, focus on the fundamentals of energy and resource efficiency, project management and presentation techniques. The teams of apprentices can then practise their new skills by developing and implementing an efficiency project in their company which will then be assessed by a jury.

REMONDIS' team actually won the event in the competition's first year. Two teams are taking part from the REMONDIS Group this year and they are determined to win the title back for their resource-friendly company.

REMONDIS Production's team: (from left to right) Laura Krois, Noah Sacharzek and Nicola Keuter



REMONDIS Industrie Service & Medison's team: (from left to right) Anna-Maria Zeiger, Mareike Schröder and Ines Meermann

On Berlin's roads with the patience of a saint

ANTONIA THÖNISSEN AND JESSICA KLEINE ARE HGV DRIVERS
THROUGH AND THROUGH

It's winter in Berlin. The dark mornings and evenings and the wet streets make it difficult to get around this capital city. It's hard to see what's happening in the side streets and patience is needed to get the large waste collection truck around the corners. Cars that have been double parked and cyclists are constantly holding up the traffic. "Patience! That really is the biggest challenge of this job," explains 17-year-old Antonia, who is currently doing an apprenticeship to become a professional lorry driver at REMONDIS in Berlin.

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Anyone who has met Antonia and her colleague Jessica will find there is no need to discuss gender equality here. Both these women know exactly what's what – across the whole of Berlin. Being lorry drivers, they don't have so much physical work. They do, however, find the job of moving the blue wheelie bins a good way to build up their strength with the bins being so full of transport packaging in the winter that the lids won't close. Both agree that the most difficult part of their job is remaining calm and patient in the traffic.

The fact that Antonia used to take part in boxing competitions has proven to be a great help to her in these chaotic situations. And not because it means she can get out her

boxing gloves but because this four-time winner of the Berlin Lightweight Boxing Championships knows how to cope with stress and how to persevere. Today, she only boxes as a hobby as she wishes to concentrate on her apprenticeship at REMONDIS. Nowadays, she likes to get her adrenalin kick by riding her motorbike or her quad bike. "And if I get bored at the weekend, I just take my dog out for a walk for a couple of hours," she said as if she often needs to get out and about to get rid of her excess energy. Her colleague Jessica would appear to have just as strong a character. This 18-year-old has already made a name for herself among her colleagues as being an excellent mechanic. With her father running his own garage, she knows all about engines and changing oil. So she is not easily thrown off course when she is carrying out her waste collection trips – not even if her truck breaks down.

Neither woman has had lewd or shallow comments thrown at them. Not from their colleagues, nor out on the streets. "Why should we have?" Antonia asked matter-of-factly. Asking why she chose, as a woman, to take up this profession also seems to be superfluous, as is perhaps the whole discussion about gender diversity. "I've always wanted to do this job ever since I was a small child. And this is what I've done. Simply because I love it."



Jessica Kleine (18)



Antonia Thönißen (17)

IMPRESSIONS



◀ Chairperson of the CDU party, Annegret Kramp-Karrenbauer, and German MP Carsten Linnemann visited the industry's stand during the national congress of the CDU's SMU Association

Transdev employees from all around the globe after they had had a tour of the Lippe Plant and listened to a speech held by the deputy chair of their board of directors, Ludger Rethmann, at Saria's new head office; they are participating in the Trans'Lead programme, a special training scheme aimed at furthering outstanding managers in the Transdev Group



Francois-Xavier Chirol and Caroline de Saint Leger, the organisers of the Trans'Lead programme, talking to Ludger Rethmann

◀ Umwelt Control Labor was one of the many companies to make the most of the annual Lünen Apprenticeship Evening to present their many different apprenticeship courses



The newly renovated square in front of SARIA's head office (Werner Straße 95) in Selm was officially named "Norbert-Rethmann-Platz" [Norbert-Rethmann-Square] in the middle of September; the official ceremony was attended by the Mayor of Selm Mario Löhr as well as by many members of the company's supervisory and management boards



◀ MEP Dr Peter Liese (2nd right), a member of the CDU party, visited the phosphorus recovery pilot plant in Elverlingsen together with Katrin Brenner, REMONDIS Aqua



Whatever people put together – should be able to be taken apart again

Lighter, more stable, more versatile – industry is increasingly banking on lightweight design and construction. Which is a good thing in principle. But sometimes carbon-reinforced plastics (CRP) are used as well. Composite materials like these cannot be recycled because their elements cannot be separated again. This is where we can only obtain help from ecodesign guidelines, which address the recycling issue already at the stage of product development.

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