

LogisticsPEOPLE

02/2014

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Exploring new territory

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“We’re not involved in innovation for innovation’s sake. The innovation must benefit the customer.”



Dear readers,

Many companies love using terms like “sustainable”, “authentic” or “innovative” for public image purposes. No market player likes hearing that you could describe its services as “conventional” or even “antiquated”.

It is quite natural for Rhenus to monitor trends in the logistics sector carefully. If new products and innovative processes achieve significant benefits for our services for customers, we will invest in people, steel and concrete, software or processes without any hesitation. This involves, for example, improved equipment at our warehouse and handling centres, attracting specialist and management staff or purchasing and developing our own powerful IT systems.

However, for the Rhenus Group, being innovative does not mean running so far ahead that customers are unable to see us any longer. They are our major point of focus and we have to adjust our services to meet their needs – and not vice versa. Technical innovations, which are presented at trade fairs and introduced in specialist media, normally only provide the solution for a particular application or for specific applications. We demonstrate

our ability to introduce innovations to develop solutions; when working closely with our customers, we have no qualms about abandoning well-trodden paths and trying out something new.

Our customers expect us to be flexible. The numbers of items are not the only thing to vary within the duration of any project: the size of the products never remains the same either. We introduce the necessary adjustments with support from our customers. Innovation is never an end in itself for us, but must serve our customer’s needs.

We have to find our own courses of action to cope with the conflict between the specific requirements for everyday logistics work and making the necessary preparations for the challenges of the future. I deliberately say “courses of action” in the plural, for the steps that we need to take always look slightly different for the individual company units.

However, these units are always ready to question what has worked well in the past: firstly, so that we can improve matters in an ideal situation tomorrow, and,

secondly, so that we can still provide services efficiently the day after tomorrow. The fact that our employees enjoy solving challenges with their ideas, their own approach and in dialogue with customers strengthens the innovative character of Rhenus in the long term.

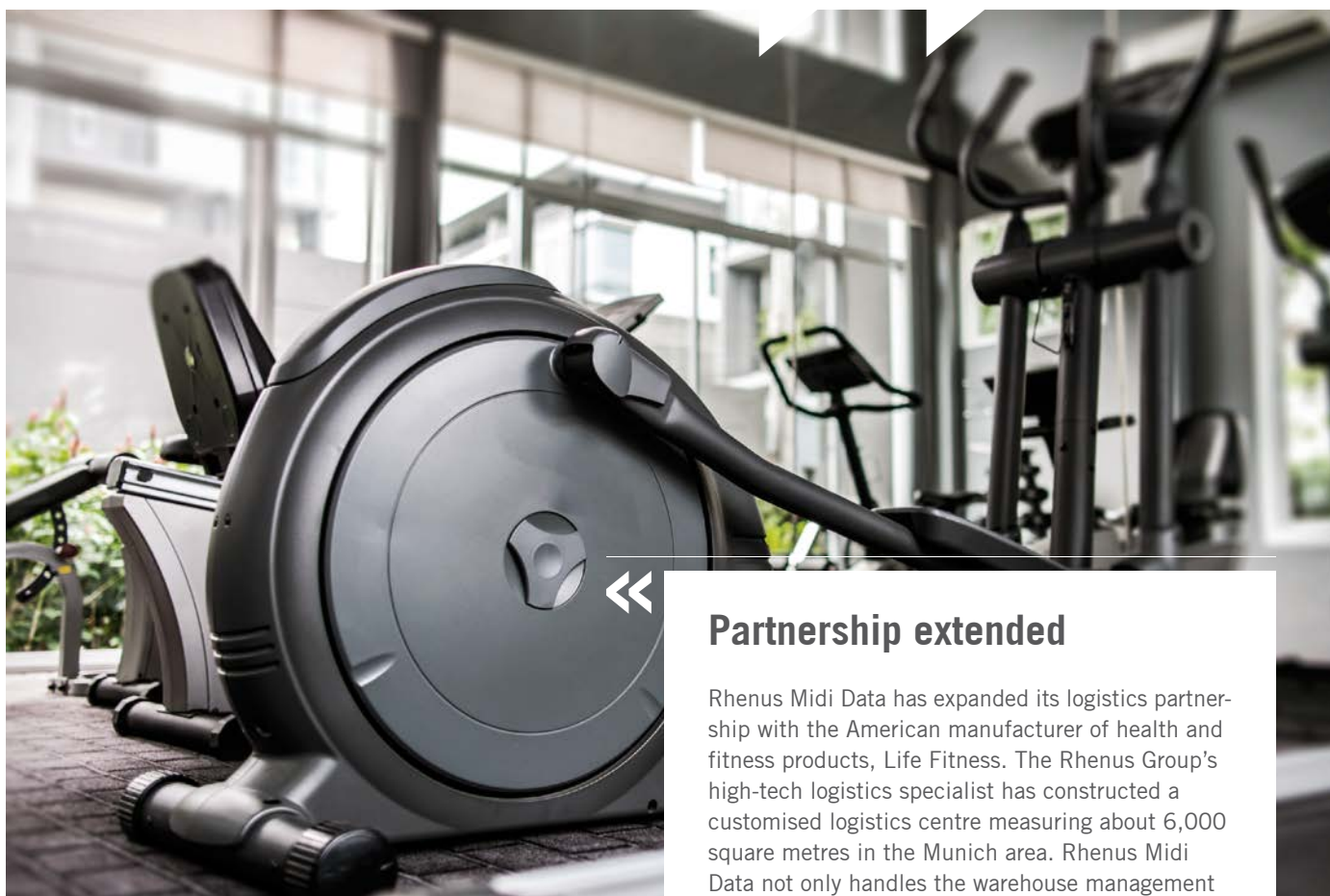
With this philosophy in mind, we will continue to develop Rhenus and its services for our customers in the next few years. We would like to introduce you to some projects in detail, where we have already been successful in this regard, on the following pages of the Logistics PEOPLE magazine.

A handwritten signature in blue ink, belonging to Klemens Rethmann. The signature is stylized and fluid, written on a white background.

Yours sincerely,
Klemens Rethmann
CEO

Rhenus

in Brief

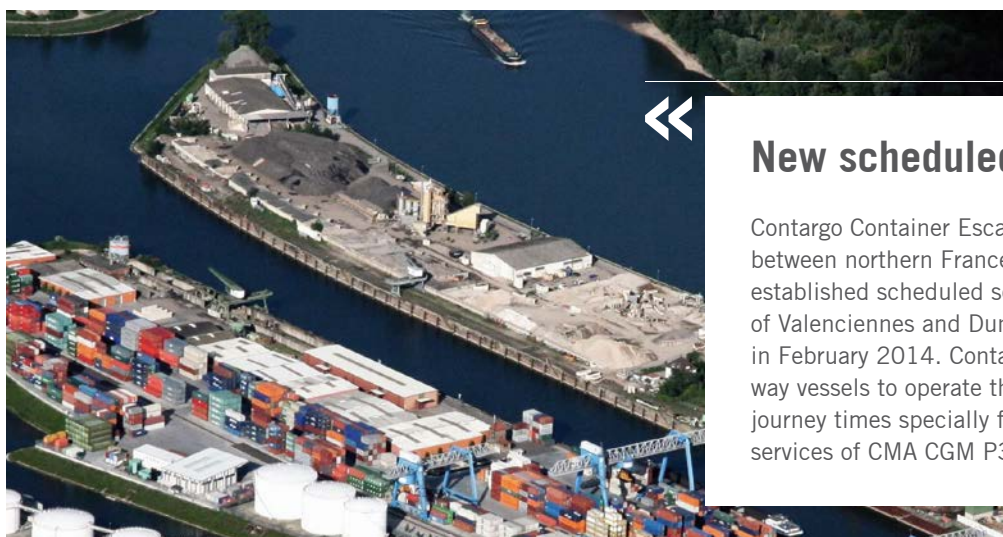


Partnership extended

Rhenus Midi Data has expanded its logistics partnership with the American manufacturer of health and fitness products, Life Fitness. The Rhenus Group's high-tech logistics specialist has constructed a customised logistics centre measuring about 6,000 square metres in the Munich area. Rhenus Midi Data not only handles the warehouse management operations for a wide range of fitness products, but also the spare parts logistics.

Factory logistics for Solvay

Rhenus Logistics France has been operating the factory logistics for the Solvay Group, a major player in the chemical industry, at the latter's plant in Saint-Fons near Lyon since January 2014. The factory there produces aromas for the food industry and intermediate products for the pharmaceutical and chemical industries. Rhenus Logistics France ensures that the products are packed in sacks, boxes, barrels and big bags round the clock; it also manages the disposal and warehouse processes and prepares orders for Solvay customers.



New scheduled service

Contargo Container Escaut Services has improved the link between northern France and Asian routes with a newly established scheduled service between the French cities of Valenciennes and Dunkirk; the company launched this in February 2014. Contargo uses its own inland waterway vessels to operate the 143-kilometre long route. The journey times specially fit the timetables of the Asian services of CMA CGM P3 Network, Maersk and MSC.

New buses for Veniro

Rhenus Veniro is renewing its bus fleet. Following an invitation for tenders across the EU, Rhenus placed an order for 50 public transport buses with the chosen manufacturers. Access for the disabled, ecological and economic criteria all played an important role in the decision to place the order.



Publishing software

Rhenus Media has expanded its IT services portfolio and will in future operate the knkVerlag publishing house software at its own data centre. Rhenus Media is planning to introduce a service and licence accounting system related to its use during any particular period for magazine, book and specialist publishing companies. Publishing houses do not need to make any up-front investments to use the software.



Warehouse projects in India

Rhenus India has managed to gain several commercial warehousing contracts at the same time: the logistics specialist operates a warehouse measuring 4,500 square metres for the scientific technology company, DuPont India, in Baroda; it will be possible to enlarge this, if necessary. Rhenus India has also been handling warehouse services for the chemicals company Huntsman in Bhiwandi, Chennai and Jamalpur since January 2014.



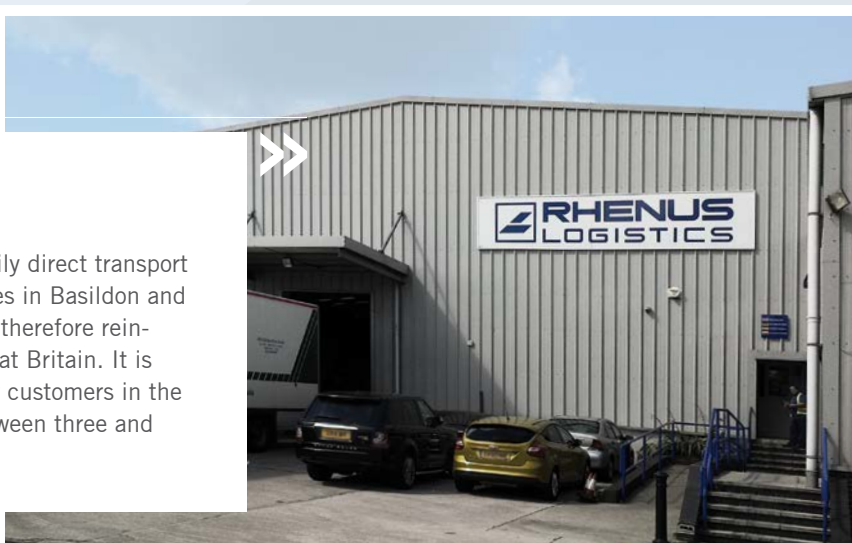
“Satellite” software platform

Rhenus Logistics France presented its new “Satellite” IT system at the SITL Transport and Logistics Fair in Paris in the spring of 2014. The platform enables customers to manage their supply chains in line with their needs. “Satellite” pools all the customer details, regardless of which information system is in use. It is also possible to pass on information and access the programme in real time – even using a tablet while on the road.



Direct traffic

Rhenus Logistics Spain has been offering a daily direct transport route between Valencia and the logistics centres in Basildon and Cannock in England since April 2014 and has therefore reinforced its links between eastern Spain and Great Britain. It is now possible to provide even better support for customers in the Mediterranean corridor. The transit time is between three and four days.



IDEAS, INPUT, INNOVATIONS



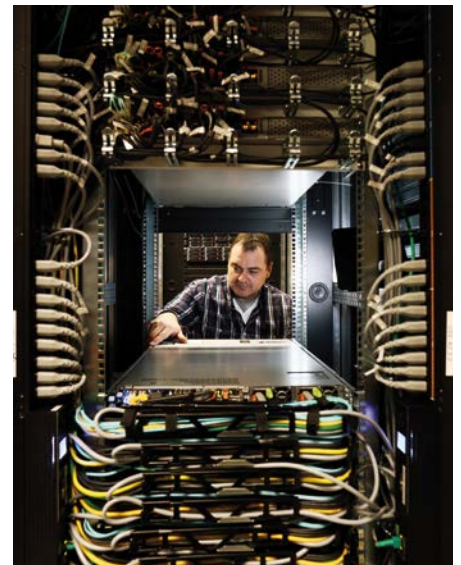
Rhenus explores new avenues –
with customers and for customers

The world of logistics will look very different in ten years' time. However, Prof. Dr Michael Hompel, who is carrying out research in the field of innovations, says that constant evolution is required rather than a revolution and he advises companies to make changes gradually.

Rhenus claims to be at the forefront in terms of innovations: being one of the leaders of the pack is our motto – but only if customers receive clear benefits from the innovations. “We want to move our services into the future and take our customers with us,” says Dr Stephan Peters, a Member of the Rhenus Board.

As a result, the individual corporate units do not primarily develop logistics processes, techniques and services as forward-looking solutions for the market place, but often as a specific service in conjunction with their customers. The current state of technology is one gauge and the realities in the customer's line of business are another. To put things differently: the pace of innovations in the high-tech sector is far greater than when handling coal.

Rhenus seeks to remain close to customers in an innovative way. This means



looking to save resources, time and costs for freight operations, finding standard cloud solutions for very different terminal devices, discovering highly efficient processes for picking and packaging parcels to suit several customers or business sites, or developing new ideas for transporting office equipment that has proved its worth on countless occasions. Rhenus demonstrates its unique approach when facing a variety of tasks – whether they are large or small.



Clever freight scan with “Smart Cargo”

Amsterdam Airport Schiphol is the home base for the pilot project known as “Remote Scan”. Rhenus is aiming to change the air-freight sector decisively. The principle is simple. “We screen the freight consignments selected by the Dutch Customs Service in our own x-ray machine and send the images to the authority for remote analysis in real time. So no customs official has to be physically present for the procedure,” says Peter Pasmann, the Rhenus Group’s COO Airfreight Europe, describing the project that the company launched at the beginning of the year.

The pilot project is part of the “Schiphol SmartGate Cargo” programme and is one of the first international public/private cooperation schemes in the air-freight sector. This procedure has already proved

its worth. Remote scans now take place every day between 6 a.m. and 9.30 p.m. The Dutch Customs Service decides which criteria to use to select the cargo consignments.

Pasman points out that the Rhenus warehouse where the x-ray machine is located meets the highest security requirements and has certification in line with the global TAPA standard (Transported Asset Protection Association). “Our remote scan system is a new step towards more efficient and more secure logistics processes. Rhenus not only plays an active role in air-freight logistics,” Pasman emphasises. “All those involved in the logistics chain benefit from the time savings – both companies and public authorities.”

“

“Anybody who has stopped getting better has stopped being good.”

Philip Rosenthal (1916–2001),
German Industrialist



Patented space-saver

Innovations do not always involve such major steps. Sometimes it is possible to make crucial improvements to logistics processes with just a small idea. The best example is “Bobby” – a pallet that is 80 centimetres wide with what are known as clamping jaws at its sides – movable, metal attachments at the edge, some of them covered by felt.

At first glance, it does not sound very spectacular. Yet Rhenus Midi Data customers now benefit enormously from this patented reusable pallet. Why? “Because we can now transport office equipment, which is often not packaged – e.g. large printers – for our customers in an efficient,

safe and easily manageable way,” Franz Kronschnabl, General Manager at Rhenus Midi Data, explains; he is the co-inventor of this transport carrier with the patent number EP 1785361 A2.

“The special feature here is that only one person is required to handle the units during deliveries, as we can transport the pallet in normal lifts with a pallet truck. In addition, we can now safely transport 36 pallets in a truck.” The figure was only 24 prior to “Bobby”. This is a real hit with customers. Rhenus Midi Data now uses 4,000 of these pallets for its business operations.

“

“I enjoy making something that nobody has seen yet.”

Roland Emmerich (*1955),
German Film Director, who works in Hollywood



Innovations for people

We now move to Cuxhaven on the North Sea coast. The Cuxport terminal, in which Rhenus has a shareholding, is currently supplying the parts for the “Amrumbank West” offshore wind park, which is under construction. The terminal has been handling the foundation structures for 80 wind turbines since October 2013; it provides intermediate storage and prepares deliveries for the installation vessel.

However, what is the use of the best logistics if the project manager at the wind park and his employees cannot be on site all the time? “We set up a container village here at short notice. We supply everything for our customers – ranging from coffee cups to the crawler crane that can lift up to 1,350 tonnes,” says Roland Schneider, Business Development and Sales Manager at Cuxport.

“Any innovation is destined to fail if we do not take into account the people,” Schneider says. It is just as important in his eyes to supply the many experts at the site as to handle the monopiles weighing up to 670 tonnes and the transition pieces that weigh 300 tonnes.

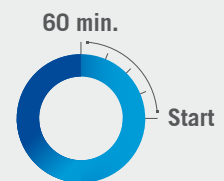
Mobility in rural areas

Just 130,000 people live in the Eastern German Rural District of Stendal, one of the most sparsely populated regions in the country. However, as even people in small villages have to go to the nearest small town to do their shopping or visit a doctor from time to time, Rhenus Veniro and the Rural District of Stendal have jointly developed an innovative concept in the public transport arena: the “call bus”.

“Passengers can register their need for transport using a hotline to the Stendal mobility centre 60 minutes in advance and a vehicle then picks them up; they only have to pay one euro extra on top of the normal fare for this comfort service. If Rhenus Veniro is able to pool several requests, it uses a normal bus or minibus – otherwise a taxi picks up the passenger,” says Rhenus Veniro Managing Director, Henrik Behrens, explaining the idea.

Rhenus has successfully introduced this system with the local public authorities in other rural districts too – e.g. in Bautzen, Görlitz or the river Mosel area or the Eifel Mountains, where it is impossible to use comprehensive, scheduled services triggered by demand in a cost-effective way.

This is how it works:



60 MINUTES

in advance - register their need
for transport



+1 EUR

COMFORT SURCHARGE
on the ticket



PICKED UP
by bus or taxi

“

“Anybody who is confident enough will step up to score.”

Joachim Löw (*1960),
Former German Footballer and
Coach of the Germany Team

Clever management

Technology is there to serve people and not vice versa. In line with this, the Rhenus Group set up its own corporate cloud as early as 2012 to enable employees to gain access to software, server and database systems from anywhere in the world.

“The private cloud enables us to be very flexible and we can quickly adapt our services to meet local circumstances,” Christoph Kistner, Managing Director of Rhenus Assets & Services, explains.

Kistner and his colleagues are currently working to ensure that all the office applications and corporate portals are available in the Rhenus cloud, regardless of which device is in use.

PC, tablet or smartphone, Windows or Android – each employee will be able to provide the best service for customers at any time – regardless of whether they are situated at a cool port on the North Sea, in hot and dusty Tunisia or in an air-conditioned warehouse in Amsterdam.

Innovations that had to wait for a breakthrough

1881

Gustave Trouvé built the first electric bicycle – it had three wheels, weighed 160 kilos and travelled as fast as a horse-drawn carriage.

1947

Percy Spender developed the first prototype of a microwave oven. The unit was as large as a refrigerator, weighed 340 tonnes and was supposed to cost US \$ 5,000.

1975

Kodak introduced the first digital camera on to the market. It weighed 3.5 kilos and it took almost 30 seconds to store a digital photo.

1983

The enormous Growian wind turbine was connected to the national grid for 420 operating hours. It was 100 metres tall and generated three megawatts of power, overloading the networks available at the time.



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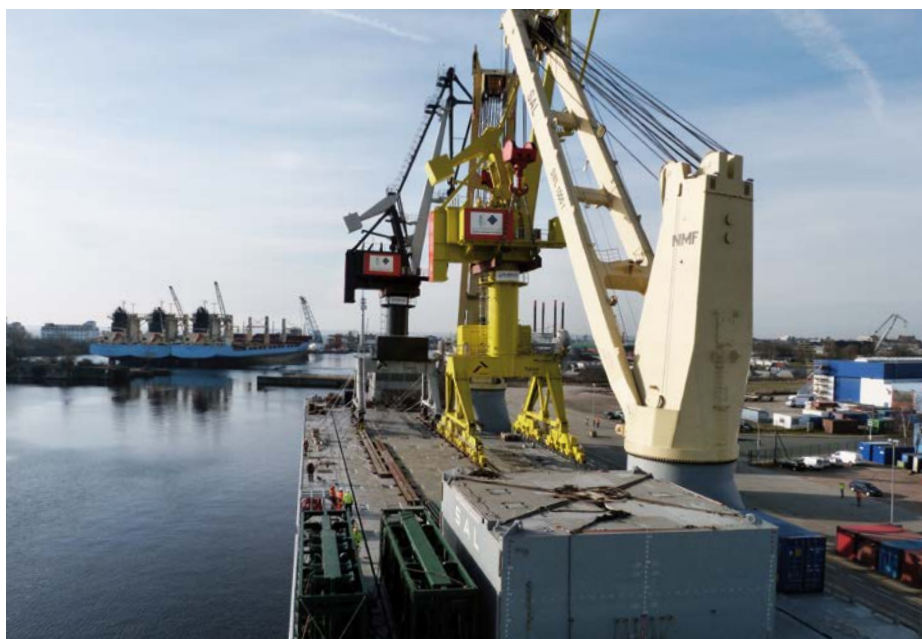
*“There’s always a way
to improve things.”*

Thomas A. Edison (1847–1931),
US American Inventor and Entrepreneur

Every idea counts

All these examples demonstrate that the innovative power available within the Rhenus Group stems from a wealth of individual ideas, small steps and the ability to think on a large scale. Each employee, regardless of where they work, faces the challenge of looking for innovative solutions.

“Customers supply us with important suggestions for continuing to logically develop our range of services,” says Dr Peters. Innovation is not an end in itself for Rhenus. Practical benefits alone turn the original idea into real progress.



Tall cranes well secured

The main thing is to ensure that no dirt gets into the works. Rhenus Project Logistics now ships whole cranes from Wilhelmshaven to the Tunisian ports of Sfax and Gabès instead of individual parts. As a result, it is not necessary to assemble the 50-metre tall cranes in a very sandy environment locally. Rhenus developed special load securing measures for the marine transport operations, as the cranes are as tall as a 13-storey building!



Video showing the transport operation:
<http://www.rhenus-projects.de/galerie.html>

Schiphol SmartGate Cargo programme

The programme is a joint initiative by Amsterdam Airport Schiphol, the Dutch Customs Service, the Air Cargo Netherlands air-freight association and the Dutch airline, KLM Cargo. The aim is to make freight processes even quicker, more efficient, more secure and more cost-effective in future – and retain the same high levels of security and reliability. Amsterdam Schiphol is Europe’s third-largest cargo airport and handled approx. 1.5 million tonnes of freight in 2013.

“The Feeling of Being the Only Customer”

Nonin Medical relies on the skills of Rhenus Advanced Services



The US American corporation, Nonin Medical Inc., the global manufacturer of non-invasive medical monitoring devices, has pooled a wide range of processes with the Rhenus Group by moving its customer and warehouse distribution centre from Hudiksvall in Sweden to Amsterdam in the Netherlands. Andy Radford, Director of Global Operations at Nonin Medical, and Willem Boersbroek, General Manager of Rhenus Advanced Services, talk about their cooperation.

Mr Radford, which challenges did you face in terms of distributing your products in Europe?

Andy Radford: We gained access to a customer service and warehouse distribution centre in Sweden through an earlier acquisition. But its isolated location made it difficult for us to offer the best services to our customers in Europe, the Middle East, Africa and India. So we looked round for a services provider in a central location, which would support us and make available the services that we now require and will need in future.

Mr Boersbroek, was the Netherlands a promising alternative?

Willem Boersbroek: Yes, indeed. Using the facilities at Advanced Services, we're now able to supply the dealers and sales staff of Nonin Medical much quicker with products, literature and information in the regions already mentioned. The same applies to repair work. The Netherlands also offers a benefit in terms of cash flows,

as imports and sales within the European Union do not attract any value-added tax.

What other advantages are there?

Andy Radford: We now have one partner, Rhenus, to handle all the tasks – ranging from orders to payments. Rhenus not only handles customer services in many languages when accepting and logging orders, but also picks items, dispatches them and provides technical services, including managing returns, stocktaking and even accounting processes. This enables us to manage the operations division more simply and it offers us cost benefits.

Willem Boersbroek: We want to create exactly these benefits for our customers through what Rhenus Advanced Services is able to do – that is to say, by combining logistics and administrative tasks. In addition to our high degree of expertise in health care logistics, we're now the contact partner for all administrative issues too. We standardise processes, if possible, but also respond to the specific requirements of each individual order in a very precise manner.

Mr Radford, does Rhenus Advanced Services manage to do this?

Andy Radford: Definitely. Our company and our intermediate dealers are thrilled by the care and attention paid to small details, which characterise the work that Rhenus performs for us. If we contact Rhenus, we always get the impression that we're the only customer. That's what I call ideal customer service.





Nonin Medical

The name “Nonin Medical” comes from the English word “non-invasive”. It describes a medical means of diagnosis and treatment that does not damage any tissue. The company, which was founded in the USA in 1986, is a market leader in developing and producing non-invasive medical monitoring devices. Nonin sells its innovative pulse oximeters, capnographs, cerebral oximeters, sensors and OEM products in more than 125 different countries.

Full of Energy

Electromobility enables intelligent transport concepts

No emissions, no noise and cheap to maintain: electrically powered vehicles are gaining ground. They make sustainable mobility a real possibility – even in congested urban areas. Despite their many advantages, these nippy vehicles are having a tough time gaining acceptance in the face of their rivals with conventional drive systems.

The key element in electromobility: the battery

Electric vehicles normally use lithium-ion batteries. They provide a high degree of electric power, but are very expensive to buy. Researchers are therefore working hard to find cheaper alternatives: lithium-sulphur technology, for example, combines high-density energy with low costs. The latest ideas are moving towards so-called semi-solid fuel cells, which store the energy in a gel.



The idea of electromobility is not new: even the automobile pioneers experimented with electric motors – which were very popular at the end of the 19th century. No wonder: the first petrol-driven

vehicles were not only loud and smelly, but had to be started by hand too. Despite this, cars with internal combustion engines had driven electric vehicles from the market place within just a few years – mainly because their operating range was much greater.

The lack of operating range and infrastructure are still preventing electric vehicles from achieving a major breakthrough. If politicians have their way, things are set to change very soon. The European Union is planning 800,000 publicly accessible charging points all over Europe by 2020. And logistics operations in cities are set to be CO₂-free by 2030. There are plenty of model regions and showcase projects: some mail deliveries are made on electric bikes, car sharing companies use electric vehicles in many places and there are even some electric buses operating in towns.

“

“We use an electric pool vehicle for courier services to obtain spare parts and shuttle between our four business sites in Bremen.”

Alternative for short routes

The Rhenus Group also uses electric vehicles. Cargologic, the leading Swiss handling company for air freight, operates the world’s most efficient fleet of electric vehicles at Zurich Airport. In comparison to the diesel fleet used in the past, it saves about 400 tonnes of CO₂ every year. “We’re making our contribution to enable ecological freight transport services every day and we’ve also invested in Cargologic’s economic future,” says Urs Strupler, Head of Maintenance and Purchasing at Cargologic. As the engine acts as a generator when braking and feeds back energy to the battery, the tugs are in service constantly for two shifts without the need to recharge them.

Electromobility is always a popular alternative if distances are short. “We use an electric pool vehicle for courier services to obtain spare parts and shuttle between our four business sites in Bremen,” says Weserport Managing Director, Heiner Delicat, quoting one example. Weserport also has its own charging point as a company participating in the electromobility corporate initiative in Bremen.

The port handling company, Cuxport, has also had a charging point for electric vehicles since October last year. It is not there for the company’s own electric vehicles, but for handling customers’ electric cars. “As a result, we can check the state of the battery and recharge the cars, if necessary,” Oliver Fuhljohn, Head of Automobile Logistics in the Port Logistics business area, explains.

Sustainable research

Prof. Dr Michael ten Hompel, who was born in 1958, is Professor of Materials Handling and Warehousing at the University of Dortmund and is the Managing Director of the Fraunhofer Institute for Material Flow and Logistics (IML). Alongside his work as a research scientist, he has had many years of experience as an entrepreneur.

Industrial upheavals

The introduction of the mechanical weaving loom in the second half of the 18th century marked the start of the first period of industrialisation. It ended the age of an agriculture-based economy. The second industrial revolution superseded it at the end of the 19th century. The use of electrical energy improved the system of mass production and replaced steam and water power. The use of electronics and information technology heralded the third revolution in the 1970s. Production processes now face another major change, which is known as Industry 4.0, through the ability to network the virtual and physical worlds.

Logistics Reloaded

The Internet of Things is gradually arriving



Intelligent machines that steer themselves will become part of the world of logistics during the next few years. They are designed to support supply chain management for future industrial production, which will become more and more localised and individual. Prof. Dr Michael ten Hompel from the Fraunhofer Institute for Material Flow and Logistics and Dr Stephan Peters, a Member of the Rhenus Board, discuss developments.



Prof. Dr ten Hompel, how far advanced is the fourth industrial revolution?

Prof. Dr Michael ten Hompel: There is already integration between information technology and production processes in many industrial sectors. The real issue now involves increasing the value added through the maximum degree of autonomous controls.

And to what degree is logistics affected by this?

Prof. Dr Michael ten Hompel: This naturally also affects the logistics sector as THE services provider for industry. We now have access to the technologies in order to be able to transfer controls of material flows to intelligent shelves, containers and vehicles. We're working on the software, which will enable the devices to network with each other in the right direction, so that the vision of automated logistics will become a reality. Intelligent containers, for example, arrange themselves in the correct sequence before a cargo aircraft is loaded.

However, it will not be possible to introduce these innovative technologies overnight.

Prof. Dr Michael ten Hompel: That's correct. When introducing this new technology, we're talking about migration, rather than a revolution. It needs to take place gradually, component by component. We say that things will become intelligent. It must at least be possible to integrate them seamlessly in the existing systems environment. This is how we're paving the way for the Internet of Things, as we call this system of self-organisation for intelligent devices. As a result of these innovations, logistics operations will look very different from today by 2020.

Dr Stephan Peters: Definitely – as logistics services providers, we view things in a similar way. However, the challenge will lie in either making the necessary investments viable for different customers despite contract terms becoming shorter and shorter – or developing real partnerships along customer processes.

Strategic forward thinker

Dr Stephan Peters, who was born in 1968, is a Member of the Board of the Rhenus Group. The logistics specialist with a PhD has been part of the company since 2000 and was appointed to the board five years ago.



How do you see things developing?

Dr Stephan Peters: It will not be an “either/or” situation. I tend to assume that we’ll see sector solutions – for example, in the health sector or hospital logistics, in the automobile industry or in engineering, which are then combined with individual solutions from major players in the market rather like Amazon does. There will be an overall trend: systems and applications will be connected and connectable to a far greater degree than we’ve seen in the past. As a result, technology will become a real driving force for integration, transparency and flexibility.



How will logistics services change through the new technologies?

Prof. Dr Michael ten Hompel: It’s already true that many value-added services go far beyond classic transport and handling operations. Hybrid services will be in demand in future. Software solutions and product handling operations will be linked inseparably so that we can achieve the gains in efficiency that are necessary to be successful in a competitive world.

Dr Stephan Peters: This approach is already reality in many areas at Rhenus. It’s becoming increasingly important to dovetail IT and logistics. We’re generating more than half our turnover in the world of publishing house logistics with value-added services, which include IT applications and integration services. In addition to sector solutions, we’re particularly involved in the value-added chain by handling the last mile for our customers. We hand over customer products fully installed for use in the high-tech and home delivery sectors. We’re fully integrated in the information logistics chain and we shape and integrate the services for manufacturers and dealers at many points.

Prof. Dr ten Hompel, how would you advise logistics companies to ensure that they remain competitive in future too?

Prof. Dr Michael ten Hompel: I’d recommend that they do their homework! When things do change, the process will take place faster than many people imagine. The issue now is to remain focused and adapt to the requirements of “Industry 4.0” as a logistics specialist in order not to miss the boat in a few years’ time.



Dr Stephan Peters: Customer orientation and the ability to adapt are important for us. I fully agree with you: we’ll not experience a revolution, but a process of evolution. By the way, we’re already involved in this process. We’re bringing together interested parties, who are concerned to develop partnerships, processes and solutions beyond just placing an individual order. On the one hand, we’re thinking in completely new dimensions with regard to using all the technical options and, on the other hand, we’re pursuing the evolutionary approach when handling projects.

Which countries will play a leading role in developing “Industry 4.0”?

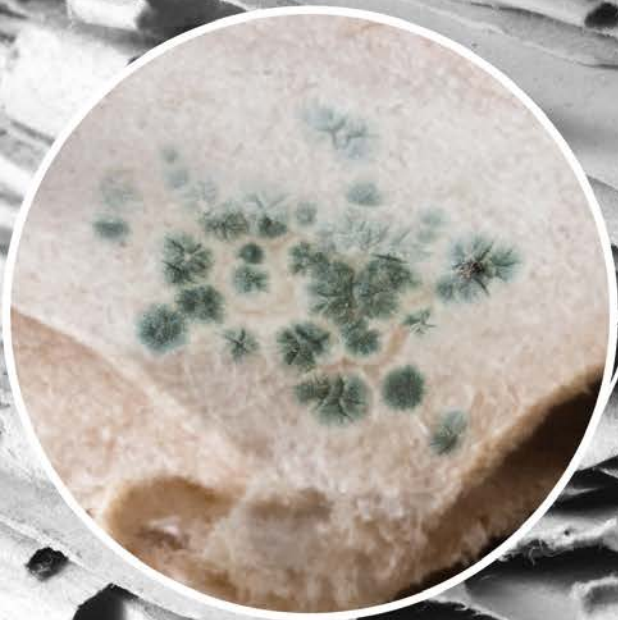
Prof. Dr Michael ten Hompel: Germany as the logistics world champion is far ahead of the others. The strength of its industry, its in-depth research, its high level of efficiency and the large concentration of services providers complement each other very well. This is creating a situation where there are constant developments in services so that the country can continue to survive in a globalised economy.



File Rescue Services in Action

**Professional intervention
protects valuable information**

It all happens very quickly: a burst water pipe, a leaking drain, sudden floods or water used to extinguish a fire. Once a file has been damaged by water or is contaminated by mould, file rescue experts need to get involved. One unit at Rhenus Data Office has particularly specialised in this field since the devastating floods in Central Europe in August 2002.



The damage is not always visible at first sight. It sometimes takes months before companies discover that files are damp or mouldy – for example, during renovation work or when relocating their premises. Dangerous fungi have often eaten their way through the files. This happened at one customer's premises and the authorities shut down its offices immediately. It was only possible to use the office space and the documents again after the file rescue services at Rhenus Office Data had sprung into action and used special cleaning procedures.

"The extremely dangerous mould, *Stachybotrys Chartarum*, had spread almost everywhere. Our first job was to clear the building and its files," says Michael Stapel, who is responsible for security and quality at Rhenus Data Office, explaining the task faced by the file rescue company. "Once the customer had eliminated those files that were surplus to requirements, we destroyed them in a safe manner and we cleaned the files that were needed in future and eliminated the mould using special irradiation," he adds.

“

"The extremely dangerous mould, Stachybotrys Chartarum, had spread almost everywhere. Our first job was to clear the building and its files."

Careful handling required

Rhenus only uses trained employees to rescue files and they receive regular training and undergo medical checks. "There are strict operating instructions, skin protection and hygiene plans to protect the employees from any risks to their health," says Michael Stapel.

Equipped with breathing equipment, protective goggles, gloves, disposable suits and safety shoes, the file rescue workers make their way to the site as quickly as possible. Then the file rescue operation can start – sometimes in rooms that are still flooded. "Even if the paper survives the soaking initially, mould can appear later and will subsequently destroy the document and pose a risk to people's health. After all, water is the breeding ground for fungi," Stapel explains.

Last resort before destruction

We prevent this with a range of measures. We extract the water from the paper using special machines; we kill off the microorganisms and then remove any surface spores. A microbiological examination then proves that the treatment has been successful. It is also possible to use additional procedures to remove any unpleasant smells. "We destroy any contaminated files, which are no longer required, in a closed, mobile file destruction system in line with the laws covering data protection and health and safety at work," Michael Stapel confirms.

Rhenus has saved files from destruction for a wide variety of business sectors during the past few years. Its customers include public authorities like federal ministries or historical archives – or firms, banks and insurance companies or prominent individuals. The Rhenus specialists are often the last chance for them to save important documents, which need to be kept according to the law or are very valuable in other ways.

Deep-freeze, freeze drying, irradiation

3

Flash-freezing

Regardless of whether the water damage has triggered any visible mould, we flash-freeze the files at minus 25 degrees Celsius in a special freezer. Any fungi are then unable to multiply and produce their toxins. This ensures that no further damage takes place in the material.



4

Freeze-drying

Freeze-drying is the most gentle process for removing water from paper. The water evaporates in a vacuum sublimator at icy temperatures without turning to liquid. This has benefits: the document hardly suffers, the pages do not stick to each other and the printer's ink remains intact; so the document is still legible. Depending on its condition, it takes up to seven days to dry a file.



2

Secure transport services

Rhenus Data Office only uses its own high-security vehicles with a closed box body to transport the goods to its headquarters in Nottuln in Westphalia. It is possible to seal the vehicle bodies, if necessary. Modern GPS location techniques mean that it is possible to track the consignment of documents without any interruptions.



1

Initial assessment

When they arrive at the scene, the file rescue specialists from Rhenus Data Office first classify and mark the damaged documents and files and prepare them for transport and further treatment. We guarantee the customer's anonymity at any time by adopting various measures like encrypting the customer's name, sealing archive cartons or wrapping pallets in black plastic.



Restoring a file

What do you do if files have been damaged by water or improper storage and are affected by mould? You need speedy action and professional cleaning and restoration processes.

This is how the file rescue services at Rhenus Data Office proceed in an emergency:



The Hospital Logistics Health Promoter

Rhenus eonova provides expertise for supplies and disposal services

Rhenus eonova helps medical centres improve their processes. Our logistics expertise enables companies to optimise a wide variety of organisational procedures. That releases resources for the real tasks of looking after patients.





The process of demographic change means that people are making greater use of health facilities. Fewer contributors have to finance an increasing demand for health services. This is creating financial bottlenecks. The shortfall in funds is not the only factor affecting the increased demand: there is a shortage of specialist workers too. It is therefore important to release nursing staff from non-specialist activities to make the jobs more attractive and ensure that they use their working time to care for patients.

Health centres need to consistently improve the efficiency of their processes in order to cope with the pressure caused by their increased use. Logistics can help here and that is what Rhenus eonova does as a specialist logistics partner for the health sector.

On the lookout for good hospital logistics?

Some of the most important secondary processes at health centres involve organising and providing transport for patients, food, drinks, medicines, medical products, laboratory samples, beds, technical equipment and waste – and handling express items like implants and mail at

the hospital site. All the processes have to work smoothly, otherwise the clinic's complex wheels grind to a halt. The reason for long waiting times or a cancelled operation may lie in flawed logistics procedures, if the necessary materials or the patients themselves are not at the right place at the right time. Any unused infrastructure and personnel not used to the full are very expensive, particularly in an operating theatre. Inefficient logistics can therefore become a cost driver.

Rhenus eonova's IT-supported transport management system enables the company to centrally manage, coordinate and organise all the logistics processes at a hospital. There are central controls and monitoring systems to ensure that all the transport operations are punctual and reliable. Rhenus eonova's central control centre coordinates all the resources used, like employees, rooms, equipment or materials, and optimises them, even during day-to-day operations. The use of this kind of intelligent transport management system creates transparency regarding the use and availability of resources and enables the company to introduce long-term organisational improvements.

Regional cooperation schemes

Effectiveness and operating efficiency are increasingly the major focus of management schemes at health sector centres. Companies are signing regional cooperation schemes in order to make better use of the existing infrastructure. In addition to internal processes at hospitals, the Rhenus eonova team also focuses on external material supplies. Hospitals have a large number of suppliers. The number may exceed 500 at large clinics. That means many trucks have to drive to a single facility every day. The frequent deliveries, some of them very small, tie up personnel in the incoming goods department and it would be more effective to use them elsewhere. Most hospitals manage their own stores too.

Rhenus eonova operates logistics centres to supply various hospitals in the relevant region from one base. These warehouses provide temporary storage for medical products and business and office requirements; employees pick the items and prepare them for transport to the hospitals, while ensuring that hygiene standards are met. This pooling of flows of goods reduces costs and minimises the expenditure for the hospital, because it can use its technical and personnel resources in a much better way than if each clinic operated its own stores without any special expertise.

The NetLog logistics solution: the Rhenus multi-user logistics centre

Large storage areas at health centres are a waste of space. Growing demands on clinic buildings through rising patient numbers and too little investment mean that hospital managers are looking for space at their facilities so that they can convert them to provide medical services. Bottlenecks are primarily apparent in the congested supply rooms on wards. This makes it even harder to treat patients quickly – if the nurse first has to look for the right product on overfilled shelves or in cupboards stuffed full of items.

Various hospitals in the capital of Lower Saxony have been using a common

logistics centre since 2001. This facility in Hanover now supplies consumable medical items to 18 different hospitals with more than 7,000 beds. The various health centres use common infrastructure, which is organised to take into account logistics principles, in order to store the necessary products. The ideal use of space and the concentrated organisation of labour at the logistics facility take the pressure off the supply logistics at all the hospitals involved and reduce the logistics costs. This meets the aim of reducing storage space and stocks at the hospitals. They can then use the storage space that becomes available as examination rooms or radiology facilities or for MRT machines for medical tasks.

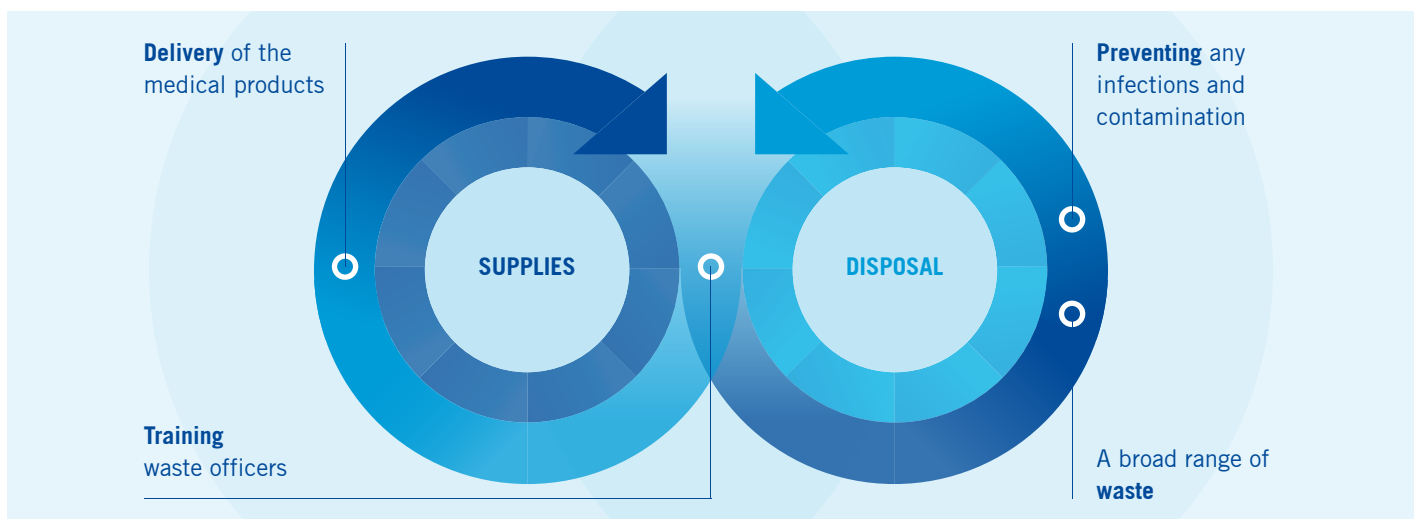
There is another benefit too: the clinics only pay for the services that are actually requested and the suppliers bear part of the logistics costs. The suppliers make available 65% of the goods at the logistics centre as consignment stock; Rhenus eonova employees then pick the items required. Software solutions, which enable an exchange of data between the supplier, the logistics expert and the hospitals, make the scheduling and accounting processes even easier. The Rhenus software solutions mean that it is possible to track batches and expiry dates precisely in line with the legal requirements. If a manufacturer recalls any products, Rhenus eonova can immediately remove them from the supply chain.



Complete supply chains

Rhenus eonova handles the material supplies at clinics using its cupboard service. Supply assistants deliver medical products and administration items to material cupboards on the wards and in the specialist departments every day. One major element in material supplies at clinics involves having proper organisational procedures for disposing of items too. Hospitals and research facilities create a wide variety of waste, including hazardous and infectious items; some examples are used syringes and drainage tubes, disposable wipes, blood bags, bottles, packaging materials and medicine remains. It is necessary to handle this waste so that no risks occur during collection or transportation. Rhenus eonova has to comply with the standards in

the Recycling Management Act, the Waste Verification Order and the Hazardous Goods Act. Professional disposal logistics creates legal certainty for the management teams at hospitals and can reduce their disposal costs in the long term. As a certified services provider, Rhenus eonova manages the waste processes as far as the recycling centre and it makes available waste and hazardous goods officers too. Its cooperation with other companies in the RETHMANN Group like REMONDIS Medison helps ensure that materials are recycled.



Go East

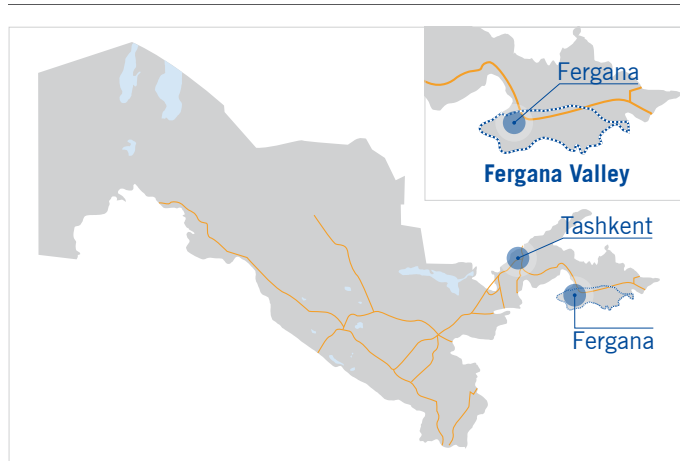
Multimodal transport operations for agricultural machinery parts to Central Asia

Rhenus has to cross many national frontiers when shipping components for the agricultural machinery manufacturer CLAAS to its factory in Uzbekistan. This not only involves using trucks, ships and trains to transport the parts, but also containers belonging to MAXX Intermodal Systems.



CLAAS

CLAAS, the family business founded in 1913, is one of the world's leading manufacturers of agricultural technology. The company, which has its headquarters in the Westphalian town of Harsewinkel, is the market leader in Europe for combine harvesters. CLAAS is also one of the world's leading producers of tractors, agricultural balers and forage harvesting machines. The company's range of products also includes the latest agricultural information technology. CLAAS employs about 11,000 people around the globe and generated turnover of EUR 3.8 billion in the 2013 business year.



“

Thanks to this innovative combination of means of transport, we can save time and keep to the agreed transit period of 35 days for shipments.”

According to official figures, the food industry accounts for one fifth of industrial production in Uzbekistan. The Central Asian country is mainly famous for growing cotton, but also a wide range of cereals and varieties of fruit and vegetables. As a result, tractors, combine harvesters and other harvesting machines are a common sight in Uzbekistan – in the densely populated Fergana Valley, for example.

Many of these machines come from the UZ CLAAS Agro LLC joint venture based near the capital Tashkent. This company has been producing agricultural equipment since 2010.

Multimodal route

Rhenus has been supporting the joint venture with production supplies for the factory since 2013. Rhenus transports machine components from the CLAAS factory in Harsewinkel in Eastern Westphalia to Central Asia. “The short transit times and the process expertise at Rhenus impress us again and again and guarantee our production cycles at this site,” says Bastian Linnenbrink, Head of Logistics at the Group Purchasing Department at CLAAS.

“The route involves a distance of more than 4,500 kilometres as the crow flies. Our transport chain involves overland services from Harsewinkel to the German North Sea coast, the short-sea route from Hamburg or Bremerhaven to the Baltic States and then block train services from Riga as far as Tashkent,” Rafael Zubac, International Key Account Development Manager at Rhenus Freight Logistics, explains. “Thanks to this innovative combination of means of transport, we can save time and keep to the agreed transit period of 35 days for shipments.”

Rhenus' own container capacity

MAXX Intermodal Systems, the container specialist for the CIS within the Rhenus Group, uses its own containers to transport the components for this project. “With our 40-foot high cube containers, we offer customers a great deal of flexibility in making up their loads – and CLAAS also saves the normal rental charge,” Raf de Schutter, Director of Sales & Development at MAXX Intermodal Systems NV, emphasises.

“The fact that Rhenus has its own employees in Uzbekistan is another major benefit in our close cooperation arrangement. It's easy to iron out minor problems, which always occur when facing a challenge like this, at short notice,” says Bastian Linnenbrink. So it is no accident that Rhenus achieves top marks for quality in the performance assessments conducted by CLAAS.



London Calling

A city on the move



London and innovations – the two terms belong together rather like fish and chips or Marks and Spencer or the royal family and continuity. Fashion trends like the miniskirt come from London, pioneering inventions like plastic were first presented to the world public here, the punk movement started its journey across Europe from London and a significant development in music history began here with the founding of the Rolling Stones in the district of World's End in Chelsea. At the same time, the cosmopolitan city on the river Thames maintains its traditions: tweed and teatime have been a regular feature of London life for centuries.

“

“We’re playing our part in ensuring that the services on the London Overground and Underground operate smoothly. This eases the pressure on the roads and improves the eco-balance.”

The Rhenus units in and around London also manage to balance what is new and traditional in their services: the high-tech logistics specialist, Lupprians, and Rhenus Freight Logistics design their services to match customer requirements precisely. Rhenus Freight Logistics, for example, recently handled a classic transport job to an unusual address: it had to deliver a modern kitchen module directly to Buckingham

Palace, the official residence of the British monarch. After all, the Windsors are not just the British royal family, but also the recipients of a wide variety of goods – even if the security procedures for deliveries are much tighter here than when handling other transport operations.



Contribution to urban development

One issue where there cannot be enough revolutionary ideas is the traffic congestion in the British capital with its eight million residents. “The traffic in the city is almost as much the subject of conversation as the weather,” says John Fletcher, Managing Director of Lupprians. The high-tech specialist company has been part of the Rhenus Group since 2013. It ensures that London keeps moving: Lupprians is not only involved in transport infrastructure projects like the refurbishment of Terminal 2 at Heathrow Airport, but it also handles the distribution and installation of ticket systems, information boards, signals, backup electricity and tunnel ventilation systems for the city’s railway and underground networks. “We’re playing our part in ensuring that the services on the London Overground and Underground operate smoothly. This eases the pressure on the roads and improves the eco-balance,” John Fletcher adds.

London also adopted a new approach when planning for the 2012 Summer Olympic Games, which the city hosted; it was the first to do so for a third time. The sports venues, accommodation and transport concepts were not primarily designed

to cope with the major event lasting almost three weeks. Because of the need for buildings, the authorities asked how the new ones could be temporarily used as sports centres during the Olympic Games. They converted the handball facility for the Games into a new community centre, for example, and completely dismantled the basketball arena after the end of the competition. Not everything has been a success story, but overall the East End of London has benefited from the efforts associated with the Games; it was traditionally the poor man of the city. In the Borough of Hackney, a former working district, for example, artists, designers, galleries and original hotels and restaurants have sprung up and they are bringing a breath of fresh air to what is otherwise traditionally the rather stiff British character. “More than 160 different nationalities live in London. Its cuisine, architecture, fashion, music and art in all its forms benefit from this mix of influences,” says John Fletcher, summing up the city’s special flair. This unique mixture is what makes London so exciting and one of the most popular destinations for people from all over the world. To put it simply: London is still calling.



Branches

London is one of the strategic business and technology business sites for Lupprians, in addition to Milton Keynes, Manchester and Glasgow. The company specialising in technical installation and distribution services has its headquarters in Ashford on the outskirts of London and it particularly works for the transport, health and banking sectors and the IT industry. The specialist vehicle fleet of the high-tech logistics services provider, which is part of the Rhenus Group, allows the market leader in Britain to deliver high-value machines safely; and the experienced Lupprians technicians then set up, install and maintain them too.

The Rhenus Freight Logistics business site in Basildon organises international road transport services for southern England and London with starting points and destinations on the European continent. The branch located east of London also provides warehouse space for selected customers; and picking services take place there too.



Worth a visit

Anybody who wants to get a glimpse of the living accommodation of the rich and beautiful in the city should stroll along Regent's Canal from Camden Dock to Little Venice. The footpath through Regent's Park takes you past many magnificent houses and idyllic houseboats.

Tip: If you get tired of walking, you can book a seat on one of the many boats operating on the canal.



Eating and drinking

Poppies in Camden has the best fish & chips in London. And that is not all: the restaurant exudes the charm of the 1950s with great attention to detail – ranging from the music to the deco.

Tip: A real must for any sweet tooth: the Hummingbird Bakery on Notting Hill's famous Portobello Road sells delicious cakes, pies and cupcakes.



Evening programme

Drama, comedy, horror, musicals – there is a performance to suit every taste on London's stages – with very high standards and often internationally famous artistes.

Tip: Buy your tickets at the theatre that you have selected, as other places charge additional fees.



Shopping

Who is not familiar with the famous bookshop from the film comedy "Notting Hill"? Right opposite there is another bookshop to whet the appetite of any cook or chef: "Books for Cooks" at 4, Blenheim Crescent sells nothing but cookery books.

Tip: There is a small, but high-class restaurant hidden at the rear of the shop. The open-plan kitchen serves up two dishes and cakes from recipes found in the cookery books in the shop every day.

On your marks, get ready, go!



Scan the QR code and get playing!



<http://www.de.rhenus.com/rubbellos.html>



Win a real logistics adventure:



A glimpse behind the scenes in Dortmund

Win the chance to obtain a glimpse of file destruction operations with free shredding for your documents. Then there is a guided tour of Germany's largest stadium, the Signal Iduna Park.



Experience the port of Duisburg

Enjoy a boat trip through the port of Duisburg on board Rhenus' own vessel, "Möwe".



A guided tour through the world's largest freight airport in Hong Kong

Enjoy a tour of the terminal at the airport in Hong Kong. Its enormous size will impress you and you will see the pulsating city from a very different point of view.

It is as simple as this:

1.

Scratch off the winning code!

Scratch off the grey area with a coin to discover your code.

2.

Scan the QR code!

Scan our QR code with your smartphone or tablet or simply open up the listed URL in your browser.

3.

Enter your winning code!

Enter your winning code and, with a bit of luck, you could win one of the great prizes from the world of logistics!

*** Terms of Participation**

Any legal appeal or cash payment of prizes is ruled out. Any person aged over 18, with the exception of employees of the Rhenus Group and their relatives, shall be entitled to participate; the closing date for participation is 31 March 2015. You can find the detailed terms of participation at <http://www.de.rhenus.com/rubbellos/teilnahmebedingungen.html>. Valid for two people who make their own way to the site, excluding board and lodging.

Impressions 2014

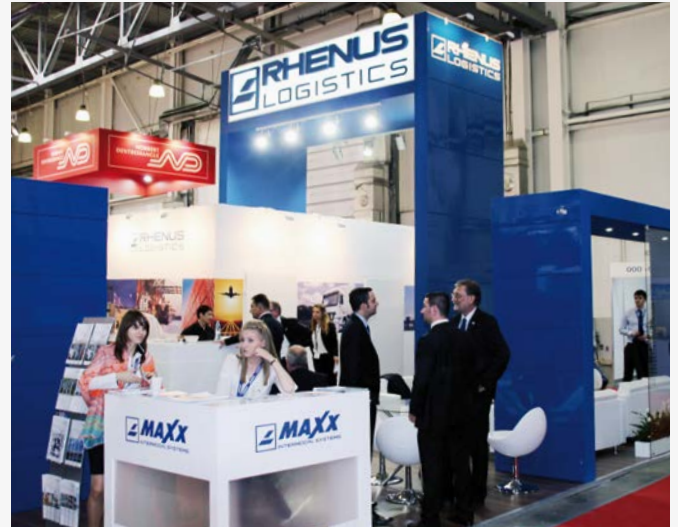
APRIL

Semaine Internationale
du Transport
et de la Logistique
(SITL) in Paris



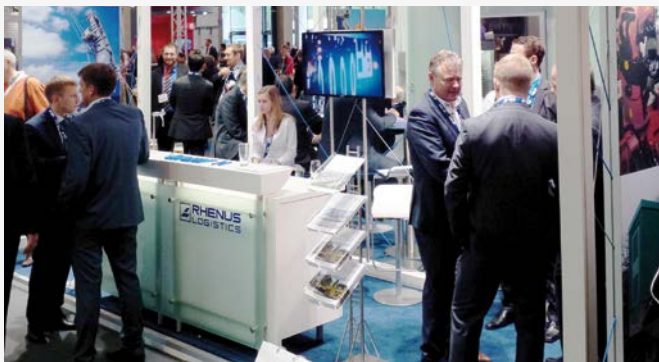
APRIL

TransRussia
in Moscow



MAY

Breakbulk Europe
in Antwerp



MAY

27th National
Sales Conference
in Eindhoven



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