



zero waste solutions
2016 Sustainability Magazine

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Dear Readers,

The world population consumes too many resources. Nor is this a recent trend. Over the last five decades, we've taken more resources from the Earth than can be naturally renewed – every year, without fail. Simple arithmetic tells us we'd need a new Earth in around 13 years. This should leave us in no doubt whatsoever that this cannot go on – neither for our generation nor those that follow. Unless we want to destroy the basis of our own existence, we need to protect our resources better.

Over 25 years ago, this is what Interseroh was formed to address, with a business model based on the conviction that we have to conserve our resources and avoid wastage. Our mission – and likewise our promise to our customers – is to develop 'zero waste solutions'. This is our term for solutions that organise materials within a closed loop, extend product lifetimes and design processes to be as efficient as possible. The aim is to accelerate development towards a closed-loop economic model, with innovative ideas that accommodate trends such as digitalisation and seek to address previously unsolved problems. And by developing new business models, just as we are doing with our Encory joint venture, for example.

But 'avoiding wastage' is not only relevant to our outward-facing business: we also apply this idea to our own actions – to avoid the disproportionate consumption of material resources and the inefficient investment of our time, skills or financial assets.

Here, we are seeking to involve all of our company divisions and have also prepared a comprehensive action plan. One of these actions is to make an initial calculation of our corporate carbon footprint and use the results to develop our own climate strategy.

All of our activities have been incorporated into our sustainability strategy with associated goals. We are now actively pursuing this strategy and reporting openly about our performance.

This Sustainability Magazine provides you with a window onto our 'zero waste solutions' and how we are working to develop them.

Your Management Team



Hans-Stefan Kalinowski



Dr Timo Langemann



Markus Müller-Drexel



Christian Petschik

Company profile



No waste of effort

Nothing needs to go to waste. All resources can be managed in a closed loop. A loop that offers a sustainable future for our economy and protects our environment. We work towards this reality each and every day. For our customers, society at large and our own business.

zero waste solutions

Our mission – and likewise our promise to our customers – is to develop ‘zero waste solutions’: solutions that avoid wastage, organise materials within a closed loop, extend product lifetimes and design processes to be as efficient as possible.

They’re found in our phones, our cars and our food packaging, in the pens and pencils we write with, and the pairs of glasses we wear. Resources. They are the natural basis of the products that accompany our day-to-day lives. Our ‘zero waste solutions’ mission aims to establish a sustainable basis for the increasing demand for resources from a growing global population and to ensure that valuable resources are not wasted unnecessarily.

Avoiding wastage wherever possible

Each and every day, **we work towards the infinite reuse of raw materials, to organise them into a closed loop, to ensure the systematic recycling of materials, to extend product lifetimes and to design processes so efficiently that scarce resources can be used as frugally as possible. This is what we call ‘zero waste solutions’.** We offer our customers solutions that mean much more than just ‘no waste’. They embody our principles: “We want to avoid wastage – right across the board,” explains Markus Müller-Drexel, Managing Director at INTERSEROH Dienstleistungs GmbH (Interseroh). “For us, our understanding of sustainability is built around actively taking steps against any and every form of wastage of material resources, time, skills or financial assets. This has been at the core of our business model for over 25 years.”

25

years of Interseroh – today an integrated environmental services provider with a global presence

While there is still much to do, we have already launched our ‘zero waste solutions’ mission in many different markets. “Thanks to the confidence placed in our business by our domestic and international customers, our company has returned over 15 million tonnes of used packaging to the raw material loop since its formation, thereby saving precious primary resources,” says Müller-Drexel. In addition, Interseroh also offers a full portfolio of services for closing the product, material or logistics loop. We help to avoid the squandering of valuable resources while drastically reducing the strain on the environment and safeguarding the supply of raw materials to the economy. Not an easy task in a world where the accelerating pace of change is reliant on an ever greater volume of resources.

Closed resource loops and extended product lifetimes thanks to alternative models such as the sharing economy are necessary to achieve the ideal of a true circular economy. Every day, the 1,600 and more members of our workforce dedicate their skills and abilities to put these solutions for a resource-friendly world into practice.

W solut

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Sustainability: our core business

We develop individual, industry-specific solutions for avoiding wastage and increasing business efficiency for customers throughout Europe. Not least because closed-loop solutions are now becoming indispensable factors for success. As a part of the ALBA Group, Interseroh not only offers all of its services from a single source but can simultaneously access the expertise concentrated within the Group. And a foreign investor has also been on board since 2017: the Chinese eco-business Chengdu Techcent Environment now holds a 60 percent stake in each of the ALBA Group's Chinese and service business. The intention here is to further expand these growth businesses and accelerate the internationalisation of the parent Group. Management responsibility for the companies will be shared between the two parties to the joint venture under the overall strategic guidance of Dr Axel Schweitzer, CEO of the ALBA Group, as chairman.

320

billion euros is the economic potential of the circular economy in the EU by 2025

Ellen MacArthur Foundation, SUN, SYSTEMIQ, Achieving 'Growth Within', 2017

“For us, our understanding of sustainability is built around actively taking steps against any and every form of wastage of material resources, time, skills or financial assets. This has been at the core of our business model for over 25 years.”

Markus Müller-Drexel,
Managing Director,
INTERSEROH Dienstleistungs GmbH



An estimated €

1.8

trillion of savings by 2030 for Europe's national economies by adopting closed-loop models

Ellen MacArthur Foundation, McKinsey, SUN, Growth within: A circular economy vision for a competitive Europe. 2015

Interseroh business segments

With our services, we're pursuing the goal of a future without waste. To do so, Interseroh's business model rests on four pillars:

ReDuce – To prevent waste, we deploy sophisticated multi-use systems and pooling solutions that optimise our customers' logistics processes while simultaneously cutting costs.

ReUse – We extend product lifecycles by setting up highly efficient systems for the taking back, sorting and reuse of recyclable materials.

ReCycle – Once the options for waste prevention and reduction have been exhausted, we then turn our attention to recycling. We develop modern solutions for closed-loop management and produce high-quality recycled materials.

ReThink – Consulting creates trust: we analyse, appraise and optimise our customers' business processes with sustainability in mind – regardless of whether the job at hand is waste volume, material flows or logistical and infrastructural processes.

Strategy for more sustainability

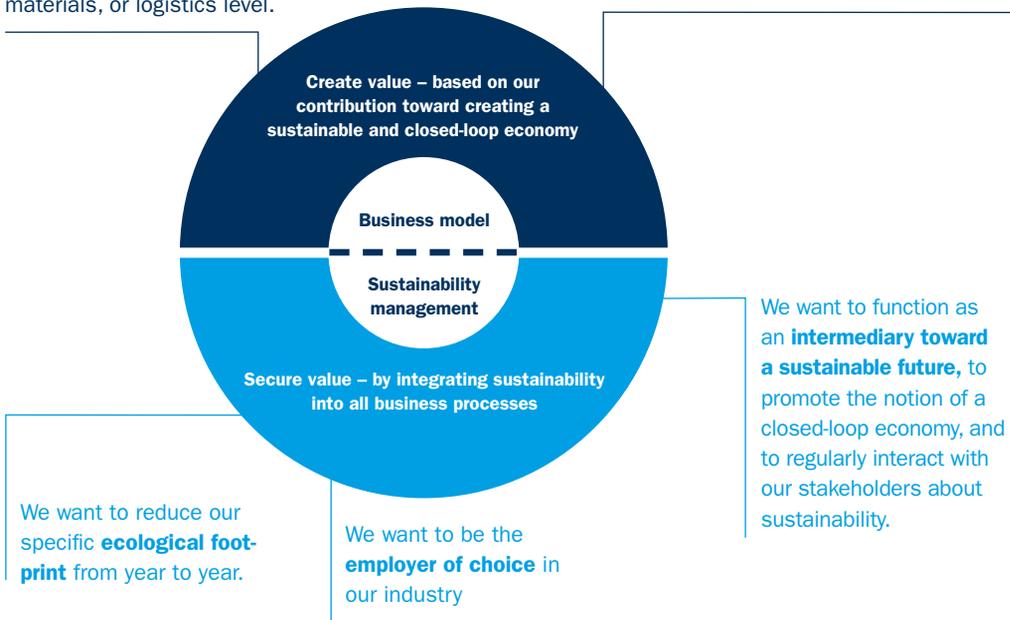
For Interseroh, cooperating on sustainable development is both a business model and a strategic focus. And this also forms a key plank of our sustainability strategy. Every year, we want to work for and together with our customers to develop new solutions that close loops and conserve resources. All of this is driven by the motivation of our staff, for whom we want to be the most attractive employer in the industry. With their help and the help of our sustainability manage-

ment team in particular, we are also working to embed sustainability into our processes to reduce our ecological footprint from year to year. As an ambassador for sustainable development, we also want to disseminate our vision of a future without waste to a wider audience. Interseroh has transposed these goals into five overarching commitments, which the company now uses to assess its progress every year (→ page 32).

Interseroh sustainability strategy

On behalf of our customers, we want to close **three loops** annually – at the product, materials, or logistics level.

We want to improve the sustainability performance of our customers by preserving at least **50 million** tonnes of raw materials annually within the ALBA Group with our services



We want to reduce our specific **ecological footprint** from year to year.

We want to be the **employer of choice** in our industry

We want to function as an **intermediary toward a sustainable future**, to promote the notion of a closed-loop economy, and to regularly interact with our stakeholders about sustainability.



The Interseroh Sustainability Advisory Board (left to right): Sybilla Merian (Interseroh), Dr Thomas Melde (akzente), Daniel Goldscheider (Global Footprint Network, YES Europe AG), Christian Petschik (Interseroh), Dr Christine Lemaitre (German Sustainable Building Council, DGNB), Michael Kölzer (HOCHTIEF), Andrea Weber (METRO Cash & Carry), Stephanie Thiele (Interseroh), Markus Müller-Drexel (Interseroh). Not pictured: Dr Henning Wilts (Wuppertal Institute), Kai Battenberg (toom Baumarkt).

Interseroh's Sustainability Advisory Board

To become better, you often need to get an outside-in perspective. By convening our Sustainability Advisory Board in 2016, we can now get a fresh viewpoint from inside our own organisation. Working with six sustainability experts, we will be further enhancing our sustainability strategy.

The members of our Advisory Board combine sustainability expertise from research, practice and civil society with professional careers in private equity, certification, retail, construction and the circular economy.

Twice a year, the six experts meet with members of the Management Board and Interseroh's sustainability management team. The aim of these events is to discuss general issues relating to the circular economy and recycling, develop ideas and proposals for the further development of the

sustainability strategy, and to identify new topics in a sustainability context. The Advisory Board also offers the experts themselves an interesting platform to exchange ideas, share best practice and propagate successful strategies to the wider world.

By 2018, the experts and internal stakeholders intend to revise the Interseroh sustainability strategy, flesh out the goals, actions and KPIs, and embed the strategy deeper into business development.

No waste of resources

All resources are valuable. And our customers have recognised the fact: old and used can be turned into new. To make the vision of the closed-loop economy a reality, we are organising this process and identifying the right solution for each customer.

Solutions for customers



It's true: there's value in everything



A visible sign of the pilot project: Genshagen is now home to 300 recycling containers in a range of colours.



A pilot project with Interseroh, titled 'There's value in everything', has proven that 'zero waste' is much more than just a vision: even now, some 99 percent of all production resources are being recycled.

99%

of all production waste is sorted and collected for recycling

"As one of the leading producers of non-alcoholic beverages, we attract a lot of public attention on many topics, including resource conservation and sustainability. Our customers and consumers talk to us about their expectations – and here too, they expect us to lead by example," says Dr Stefan Seiss, Supply Chain Director, Coca-Cola European Partners Deutschland GmbH, explaining the strategic background to the pilot project. After first formulating a vision of 'zero waste', the company contacted the recycling specialists at Interseroh for advice on closing the resource loop as completely as possible. At Coca-Cola's Genshagen plant near Berlin, all of the site's material flows were examined down to the last detail – from suppliers to production and administration through to outbound delivery.

A certified 99 percent

Fast-forward less than two years and Coca-Cola and Interseroh have already put theory into practice: as certified by the independent bifa environmental institute, 99 percent of all production waste is now collected for recycling. In terms of all recyclable materials produced at the site, the quota is an impressive 98 percent. "The project has also resulted in our monthly volume of non-recyclable waste being slashed by around 66 percent compared to figures for 2014 and 2015," Seiss reports. With the technology currently available, the trivial amount of remaining general waste – such as hairnets and disposal gloves – are not worth reusing from an economic or environmental perspective. But these are naturally not simply neglected. Interseroh not only regularly checks the quality of collected waste but also reviews potential new solutions with the aim of achieving the ultimate goal of 100 percent recycling.



Coca-Cola, Germany's largest beverage company, has set itself the goal of turning the theory of the closed-loop economy into reality – in full.

300 containers and a change of culture

A visible sign of the new sorting process at Coca-Cola in Genshagen are the 300 containers in various colours in which 50 separate kinds of material groups are collected – directly at the point of production. Interseroh has also developed a series of modular training materials that describe each process step and how to handle the recyclable waste that this step produces. "Interseroh's expertise, plus a clear commitment from our management team to sustainability and the associated capital investment were the key factors contributing to the success of this project," Seiss reports. From his perspective, another decisive factor for long-term success was the cultural change that the project introduced. "This high recycling rate is possible only because we gave our staff know-how and motivation rather than a set of orders."

In-depth training has been a part of the project from the outset – even visitors receive a short briefing before entering the premises. In workshops with suppliers and customers, the upstream and downstream processes are thoroughly investigated to ensure the best-possible recirculation or reuse, as appropriate. Comprehensive reporting on miss-sorting also offers a means of checking collection quality. Rollout at another Coca-Cola site is already planned.

The next 'There's value in everything' project is due to be launched as part of pending modernisation work at the company's Karlsruhe plant, where the site's use of returnable bottles will increase the project's complexity.

"Interseroh's expertise, plus a clear commitment from our management team to sustainability and the associated capital investment were the key factors contributing to the success of this project."



Dr Stefan Seiss, Supply Chain Director Coca-Cola, CCEP DE

A new lease of life for IT equipment – secure and resource-friendly

PCs, laptops and smartphones now form an indispensable part of our lives. And they are becoming ever faster, ever more powerful and often – although still perfectly functional – cast aside to make room for new models. To ensure that usable equipment and the resources it contains are not lost, Interseroh offers a service for preparing these devices for reuse – known as IT refurbishment. This service saves resources and keeps data secure.



IT refurbishment is the preparation of second-hand hardware for reuse and remarketing. For enterprise use in particular, PCs and laptops need to be high-performance, state-of-the-art models. After an average of 3.5 years, their service life is therefore over. If devices are then simply disposed of without proper recycling, many of their constituent resources – gold, copper, rare earths, etc. – will be lost. Many large and mid-sized companies in particular have now recognised the value of their IT in both monetary and ecological terms. “A greater sense of responsibility is now emerging in many firms,” says Benedikt Konradt, IT refurbishment expert and Head of Purchasing ReMarket at Interseroh. “We’re increasingly asked about what happens with end-of-life PCs – and not just about the data but also about the resources they contain,” he continues.

“With Interseroh, we can be absolutely sure that our data are reliably erased. And at the same time, we also help to conserve resources since our old equipment can then be reused.”

Michael Meyer, Vice President
IT Service at airberlin



Speed and security

Interseroh can handle the complete process for the customer: from pick-up and data destruction to refurbishment and remarketing. “Often things need to be handled quite fast at the start,” says Konradt. “If new PCs are on order, legacy stock needs rapid appraisal and secure pick-up.” In Germany, our turnaround for this phase is two days, nationwide.” To expand the service further, new premises are now being set up near Berlin.

This speed and high quality are key factors for customers such as airberlin. “With Interseroh, we can be absolutely sure that our data are reliably erased,” explains Michael Meyer, Vice President IT Service at airberlin. “And at the same time, we also help to conserve resources since our old equipment can then be reused.”

Since many PCs contain sensitive data, a specialised, secure logistics chain is required from the point of pick-up onwards. This can range from a drive without major stops to pick-ups with tamper-proof seals and photographic documentation. “We then use certified software to delete all data according to the recommendations of the German Federal Office for Information Security,” Konradt explains.

A second life for PCs

This is where PC hardware gets its second life. All equipment is tested, refurbished and then remarketed via resellers. A PC can then be used for another four to six years in a business or home consumer environment. Compared to manufacturing a new PC, this saves around 387 kilograms of primary raw materials and 229 kilograms of greenhouse gas emissions per unit (assuming an additional useful lifespan of 3.5 years). This was the result of research conducted for Interseroh by the Fraunhofer Institute for Environmental, Safety, and Energy Technology (UMSICHT). Customers receive a certificate from Interseroh as proof of these savings. “Of course the idea of reuse is our first priority,” says Konradt. “But if the equipment isn’t suitable, then we also handle the recycling process.”

387

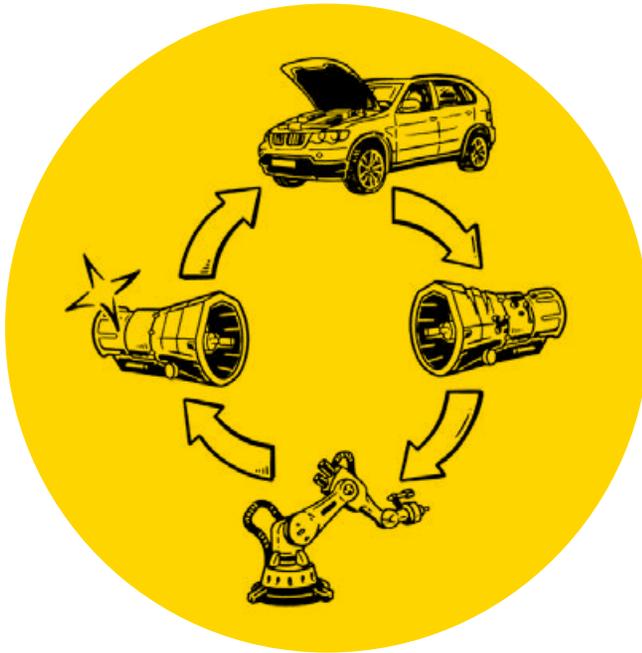
kilograms of primary raw materials are saved by refurbishing a PC. That’s a scientifically validated fact

A joint venture with a future

As many as 10,000 individual parts are built into the average modern vehicle. But what happens to these components when they are replaced? Many of them can be reconditioned and used again. Encory, a BMW Group and ALBA Group joint venture, is dedicated to achieving this goal. Within the ALBA Group, the venture was initiated by Interseroh and is also being managed by the company.



Encory, a BMW Group and ALBA Group joint venture. Redefining the future of sustainable vehicle part management.



Encory closes the loop for motor vehicle replacement parts: from reclamation and reconditioning to the remarketing of used parts, and the ultimate disposal of motor vehicle parts and waste materials.

In the automotive industry, the topic of ‘remanufacturing’, i.e. the reconditioning of used manufactured parts, is still in its infancy. To date, most old vehicle parts have been disposed of, with only a fraction being reconditioned. Yet this represents a huge loss of potential. “As a result, BMW decided to develop the topic of remanufacturing and resource collection with the aim of reconditioning and remarketing suitable kinds of parts,” explains Gregor Eggl, who works for the Munich-based vehicle maker and is now one of Encory’s two Managing Directors. **With BMW needing a competent partner for the new joint venture, Interseroh seemed the logical choice. Long experience with recycling and reverse logistics, plus comprehensive expertise in raw materials matched by a presence in international markets – an impressive résumé.** “Another factor was the positive record of cooperation with our dealer network in Germany,” Eggl adds. At the time, Interseroh was already responsible for handling workshop disposal work for BMW.

“Above all, this benefits customers: they receive a professionally reconditioned and quality-tested used part that is typically less expensive than a new part.”

Gregor Eggl, Managing Director, Encory

Eggl’s co-director at Encory is Interseroh’s Hanno Großschmidt: “We’ve already set up complex take-back systems for laser drum units, waste electrical equipment and disposable deposit items, for example, while developing brand-new business models like RTP pooling.” The company – and the new joint venture likewise – can also draw on an extensive network of service providers.

And so the leading experts in automotive on the one hand and the closed-loop economy on the other have joined forces in pursuit of a common goal: to set up a new company with the aim of retaining – or even winning back – customers, and those with older vehicles in particular.



50

Around employees handle the entire workload – from logistics to reconditioning and disposal



Good for customers, good for the environment

The joint venture, in which each company holds a 50 percent interest, was formed in autumn 2016 and had already started business in Southern Europe by early January 2017. "Spain was an interesting market because of the high average age of vehicles there and the related strong demand for repairs," says Eggl. "And the Spanish are also very receptive to new business models." With a workforce of 50, Encory now handles the entire process from logistics to the reconditioning of automotive parts and disposal. When a part is removed in the vehicle workshop, this is reported to the company via the Dealer Frontend that Encory has developed. Encory then takes care of the work involved in efficient return logistics, sorting and identification. If the used part cannot be reconditioned, it is then sent for professional disposal or recycling.

In all other cases, the remanufacturing process produces a 'reman' part that is of the same quality as a new part. "Above all, this benefits customers," explains Eggl: "They receive a professionally reconditioned and quality-tested used part that is typically less expensive than a new part." From a strategic perspective, the new company therefore also helps to improve customer loyalty for the BMW Group, since it enables certified dealerships to attract customers who are looking to repair older BMW and MINI vehicles at

a price reflecting the vehicle's age. "Particularly for vehicles more than six years old, this is an appealing alternative."

"And every used part reconditioned and resold saves on the production of a new part," says Großes Schmidt, underlining the ecological benefit of the process. Compared to the manufacturing of new parts, potential savings worldwide add up to around 85 percent of raw materials and 55 percent of the energy used. Several million tonnes of CO₂ emissions can also be saved every year. "We save around 150 kilograms of CO₂ by reconditioning just a single engine."

Rollouts planned until 2020

The next steps in Encory's expansion include technical interfacing with platforms for handling orders and returns. "Dealers already have extensive IT infrastructure available – our applications need to integrate well with their systems while also being easy to use," Eggl comments. Encory's German launch is already planned for the third quarter of 2017, and rollouts in BMW's top twelve markets in Europe, Asia and the USA are scheduled to be complete by 2020. A tight schedule. "Encory was deliberately structured as a joint venture to give us speed and agility," says Großes Schmidt. This may seem fairly unconventional when compared to the typical approach in a large corporation, he says, "but it gives us the chance to try things out quickly and then develop the ones that work well."

85%

of the raw material volume can be saved by remanufacturing

“Every used part that is reconditioned and resold saves on the production of a new part. We save around 150 kilograms of CO₂ by reconditioning just a single engine.”

Hanno Großes Schmidt, Managing Director, Encory



An online platform for waste management

Interseroh Poland moves to optimise waste management with customised Online Waste Platform.

An international retail giant set itself the task of reducing waste generation – and costs – at its 250 sites in Poland by optimising its processes. Not an easy undertaking, due to the project's complexity: a dense network of branches, varying waste types and volumes produced by each site, as well as stringent legal requirements and record-keeping obligations that are frequently amended. Here, the company achieved key improvements with the Online Waste Platform from Interseroh.

A blueprint for optimised waste management

Devised as a modular system, the digital platform can map a wide range of material flows, define interfaces to waste management and recycling companies and handle legal notification requirements. All in all, it can serve as a standard process blueprint for optimised waste management. This is the starting-point for tailoring a solution to the customer's needs. "The first step is to document the existing waste management process and identify potential areas for optimisation; if necessary, we then work with the customer to design completely new workflows," explains Katarzyna Kowaluk, Innovation & IT System Manager at Interseroh Poland, who is co-managing the project with Paweł Ceklarz, Director for Recycling Solutions & Waste Management. IT specialists from Interseroh then develop the customer-specific version of the platform. Quantities, pick-up schedules, waste management and recycling partners are all mapped out in detail, as are reporting and documentation.



“The first step is to document the existing waste management process and identify potential areas for optimisation; if necessary, we then work with the customer to design completely new workflows.”

Katarzyna Kowaluk, Innovation & IT System Manager
at Interseroh Poland

More recycling, greater transparency

Initially, the bespoke Online Waste Platform was trialled as a two-month pilot project in Poland. User training, video materials and handbooks were also provided to ensure that implementation would proceed as smoothly as possible. All 250 sites in the country are now using the platform to manage their waste. Just a few months after the rollout, optimisation has already brought results in terms of waste quantities and costs, and income generated by resource sales. With a helpdesk and its monthly audits – also designed to identify further potential for optimisation – Interseroh remains part of the process.

A total of

250

sites of an international retail giant now manage their waste with Interseroh's Online Waste Platform.



Watch the video here:
RSI Waste Platform Poland (www.youtube.com/watch?v=FAekX-5aXk0Q)



“With our new centre of competence in Maribor, we are now even better equipped to satisfy the individual requirements of our customers.”

Dr Manica Ulcnik-Krump,

Head of Research & Development at Recycled-Resource

New for old

DR ULCNIK-KRUMP, HEAD OF R&D AT RECYCLED-RESOURCE, OFFERS INSIGHTS INTO PLASTICS RECYCLING AT INTERSEROH. IN 2016, INTERSEROH OPENED A NEW CENTRE OF COMPETENCE FOR RECYCLED PLASTICS IN MARIBOR, SLOVENIA.

Dr Ulcnik-Krump, why is there such importance attached to plastics recycling?

In Europe, figures from PlasticsEurope show that the demand for plastics in 2015 was around 49 million tonnes. After use, an estimated 70 percent of plastics end up in landfill sites or thermal treatment plants. Interseroh's Recycled-Resource process focuses instead on recycling – with the aim of significantly reducing resource usage.

What is special about the Recycled-Resource process?

Recycled-Resource is fundamentally different from other processes since it operates in the opposite direction to development. We start with the product: what properties does the customer need, what requirements have to be met by the end product? After sorting based on state-of-the-art technology, the material is shredded, washed and then chemically stabilised in an extrusion process to give it the required properties. This process results in the production of a high-quality regranulate that meets specific customer requirements.

So these properties are probably very diverse?

Absolutely. And it's the combination of specific properties that really adds value for our customers. As one example, for its reusable shipping

system called “memo Box”, the mail order company memo AG needed a material that not only is a specific shade of green but is also durable, mechanically stable up to minus 30 degrees, UV resistant and safe during transportation. This is a set of properties that even new material would have difficulty meeting. AlmaWin had very different requirements. Together, we have launched the first laundry detergent bottle on the market that consists of over 95 percent recycled plastic packaging and which, despite the specific requirements of the HDPE plastic, can be manufactured using the blow moulding process.

Pen and pencil maker STABILO came to you with some very specific safety requirements. Were you able to match them?

For STABILO, material origin was the key factor. After all, plenty of people stick a pen in their mouth. This meant that the origin of the material had to be 100 percent traceable. Here, we found a match in the food grade bottle caps used by Coca-Cola. After collection, these are grinded, washed and carefully extruded. The Procyclen produced fulfils our customer's stringent safety requirements.

What are the trends in the market?

The contemporary market for recycled plastics needs high-quality materials – and increasingly ‘recompounds’ that meet the same quality requirements as new materials. This is where our materials are strong competitors. Stabilisation and modification are the areas where the biggest developments are to be expected, especially as regards colourings.

Conserving resources – the proof

Returning resources to the loop is a significant and measurable contribution to the resource and energy transition. The ALBA Group works with the Fraunhofer Institute for Environmental, Safety and Energy Technology (UMSICHT) to obtain regular reports on the resource and greenhouse gas savings achieved by its recycling activities. The benefits are also shared by Interseroh's customers.

The comprehensive study for 2015 confirms that the recycling activities of the ALBA Group in Germany, Austria, Poland and Slovenia helped to save **around 51.8 million tonnes of primary resources, while avoiding some 5.9 million tonnes of greenhouse gas emissions.** The term 'primary resources' covers overburden quantities transported as well as other abiotic and biotic primary raw materials.

Metals data now more inclusive

Alongside the metals aluminium, copper and steel accounted for in previous years' reports, Fraunhofer's experts included savings due to recycling for brass, zinc, lead and stainless steel for the first time in the 2015 report. Savings here are especially high, since mining and processing is particularly resource-intensive – and for brass in particular. "Even if we only take the ALBA Group's recycling volume of 48,000 tonnes of brass, we calculated a saving of over 5 million tonnes of primary resources," explains Dr.-Ing. Markus Hiebel, Head of the Sustainability and Resources Management Department at Fraunhofer UMSICHT.

PC refurbishment makes sense

In early 2017, the Fraunhofer experts also showed how the PC and laptop refurbishment service offered by Interseroh makes a measurable contribution to protecting the environment: every PC given a second life saves up to 387 kilograms of primary resources and avoids up to 229 kilograms of climate-polluting greenhouse gases. Customers enjoy multiple benefits because Interseroh not only organises all of the

steps involved in pick-up, the thorough destruction of all data and the reconditioning of the actual equipment, but also issues a certificate documenting the resource savings achieved.

Mobile Counting Centre saves CO₂

In autumn 2016, Fraunhofer UMSICHT also investigated the CO₂ savings achieved by Interseroh's Mobile Counting Centre. In operation since early 2016, the Centre offers on-site collection of non-reusable containers, which it also counts, shreds and crushes. The result is a considerable reduction in transportation costs and, in turn, damaging CO₂ emissions. With 21 tours of transportation of 100 kilometres each saved per month, UMSICHT's experts calculated a reduction in CO₂ emissions of 18,850 kilograms in 2016. Here too, customers receive corresponding certificates from Interseroh.



Watch the video here: [resources SAVED by recycling \(www.resources-saved.com/detailsstudie/video/\)](http://www.resources-saved.com/detailsstudie/video/)

An estimated
51.8 million tonnes
 of primary resources
 saved

Key figures at a glance

Every year, Interseroh completes many activities designed to continuously improve sustainability at its customers and within its own organisation. And we're happy to be judged on our performance. The following key figures summarise the development of our sustainability performance indicators. All of the facts and figures on sustainability at Interseroh can also be found in our 2016 Sustainability Report, accessible online at web.interseroh.de/sustainabilityreport.



31 locations

Interseroh operates 31 sites in 8 countries, including a new centre of competence for recycled plastics that opened in 2016 and an IT refurbishment plant near Berlin, which opened in 2017.

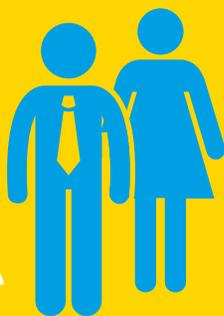


Over 25 years of experience

Interseroh celebrated its 25th anniversary in 2016. Since starting business, Interseroh has managed to return over 15 million tonnes of material to the resource loop in the packaging segment alone.

104,000 tonnes of CO₂

In 2015, Interseroh had its Corporate Carbon Footprint (CCF) calculated for the first time, thereby achieving transparency about all emissions along the value chain. Interseroh's CCF is approximately 104,000 tonnes of CO₂, and the largest share is transportation, with 63,372 tonnes of CO₂.



1,646 employees

In 2016, Interseroh's workforce increased slightly by 1.1 percent to 1,646 employees. We also increased our apprentice and trainee headcount to 19 (2015: 15).



EUR 492 million

in sales

In 2016, Interseroh's revenue rose once again by 4.7 percent. Profit declined slightly to EUR 27.3 million (2015: EUR 30.5 million).

Women in management

In 2016, women held



21.3%

(2015: 24.5 percent) of Interseroh's management positions at all levels.

- 1,216 tonnes of CO₂

In 2016, Interseroh's site-based greenhouse gas emissions (including business trips) totalled 30,312 tonnes of CO₂ – a year-on-year decline of 1,216 tonnes. In percentage terms, a reduction of

3.9%

No waste of energy

We put all our energies towards generating good ideas. We avoid wastage wherever we can. This also strengthens our own environment. Protecting what's important, promoting what's good for the future – this is also true for our staff, our company's most valuable resource.

Sustainability within the company



Calculating our corporate carbon footprint

50%

reduction in site emissions by 2025 is Interseroh's goal

In late 2015, a global climate goal was agreed at the UN Climate Conference in Paris: the warming of the planet caused by greenhouse gas emissions was to be limited to much less than 2 degrees – and 1.5 degrees if possible. One thing was immediately clear: this goal could only be reached if everyone did their part – countries, companies and citizens. As a recycling company, part of Interseroh's business model is to return resources to the loop, and so protect the climate and environment. These activities themselves create CO₂ emissions, however – although much lower than those required to manufacture products from primary raw materials. **For Interseroh, the consequence is clear: internal processes and activities must also be designed to be as resource-neutral and efficient as possible.** As part of our environment programme, all sites are required to work continuously towards improving their environmental performance. With the help of our management system, certified to ISO 14001 and ISO 50001 (since 2016), consumption figures are recorded, appropriate initiatives are worked out and goals are set.

Improvement across the board

In 2016, we completed targeted activities on all of our plants and systems. We installed more efficient pumps in our sorting plant for lightweight packaging and recyclable materials in Berlin, for example. In Leipzig, we serviced the compressed air system and replaced the conventional factory lighting with LEDs. In Mönchengladbach and Sankt Leon-Rot, we significantly reduced the number of pumps by making modifications to the dosing method. At the moment, we're also investigating options for procuring hybrid or electric vehicles for our vehicle pool. With these and other initiatives, we've saved around 1,200 tonnes of CO₂ emissions.

Corporate carbon footprint

These initiatives primarily target the greenhouse gas (GHG) emissions that are generated directly on Interseroh's premises (Scope 1), as well as indirect emissions caused by electricity, for example (Scope 2). Our business model also means that a large portion of our emissions are tied up in the upstream and downstream services we contract out, such as materials logistics, for example (Scope 3). To properly estimate these emissions and their effects, and discover

By calculating its corporate carbon footprint, Interseroh has achieved transparency about its emissions. The results have been used to formulate a climate strategy and set concrete goals:

- By 2025, we will reduce our site emissions (Scope 1 and 2) by 50 percent.
- As regards logistics, we are continuously looking for areas of potential optimisation and working towards our goal of reducing logistics-related emissions.
- In the future, we want to use our services to make an even greater contribution to the circular economy and reduce emissions. We will also be setting ourselves a quantifiable goal in this area in the course of 2017.

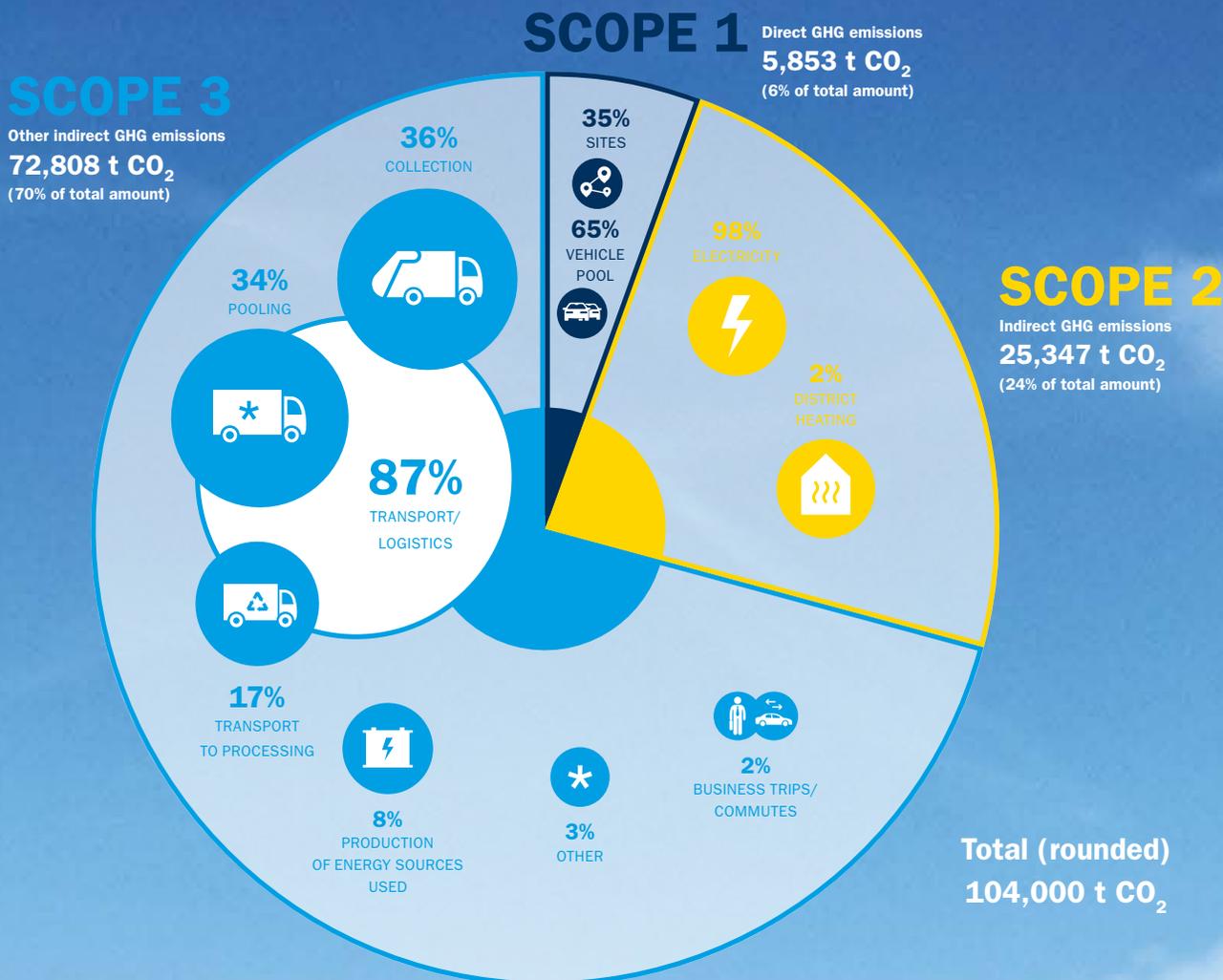
Saving resources, combating climate change – the challenges to be mastered are considerable. And Interseroh wants to do its part. With our products and services on the one hand, and by reducing our own environmental footprint on the other. Which is why we have now had our corporate carbon footprint calculated.

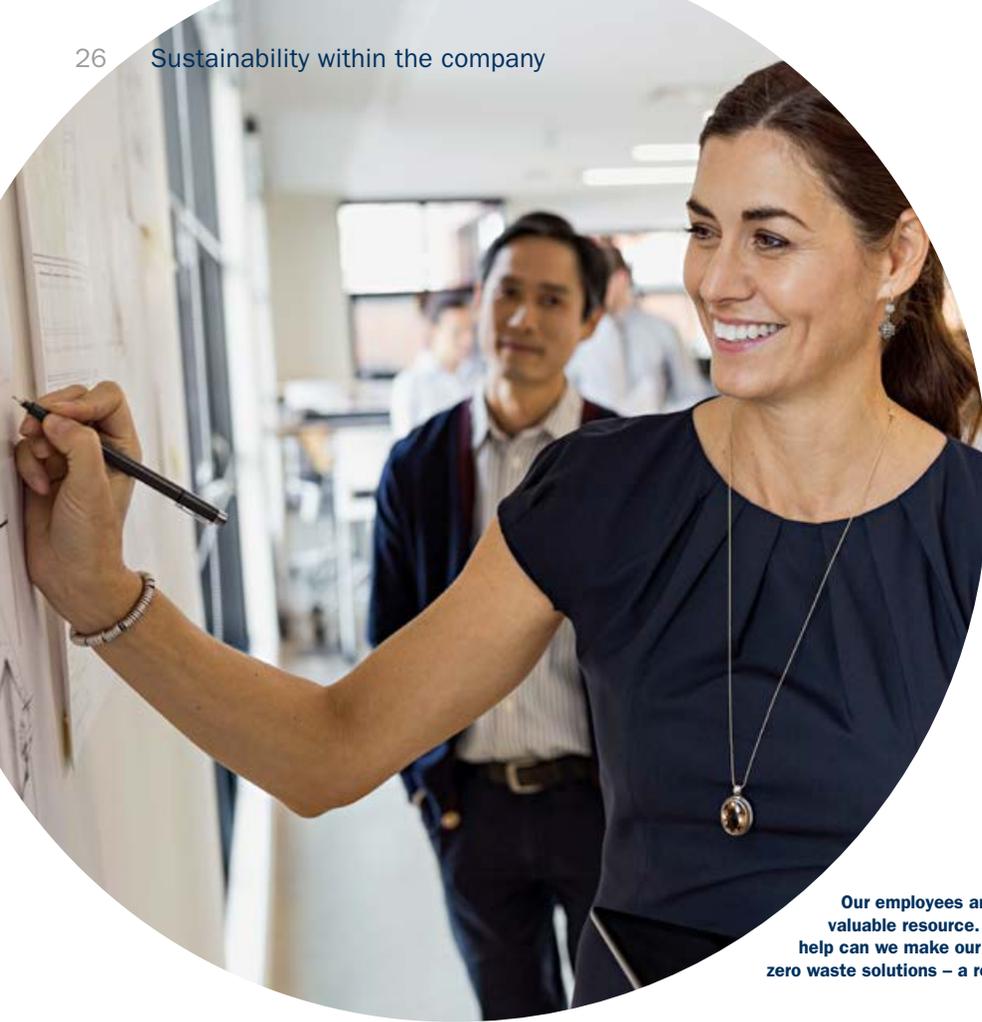
potential savings, we made a comprehensive calculation for the first time in 2015, according to the Greenhouse Gas Protocol Corporate Standard. This represents Interseroh's complete corporate carbon footprint (CCF), which amounts to a total of around 104,000 tonnes of CO₂.

Potential in logistics

Transportation plays a major role in many of the services we offer – from waste collection to the onward shipments of reconditioned materials for processing at a service provider and not forgetting

the complex logistics that keep our pooling solutions running. Such transportation is responsible for the lion's share of emissions listed in Scope 3 – some 87 percent in total. Accordingly, it's also clear that this is the area where Interseroh has the greatest potential to cut emissions. Our invitations to tender for logistics services therefore include relevant environmental parameters such as certification to ISO 14001 or the deployment of vehicles that meet the EURO 5 exhaust emissions standard as a minimum.





Our employees are our most valuable resource. Only with their help can we make our mission goal – zero waste solutions – a reality.

Energy for new ideas

Making our mission goal – zero waste solutions – a reality is possible only thanks to our employees. This is why it is very important to us to support them, to offer them a pleasant working environment and to help ensure that they stay fit and healthy.

We are very proud of our workforce of over 1,600 employees. Every day, every one of them helps to develop innovative solutions for our customers. Their motivation and expertise make them our company's most important resource. With our varied basic and continuous vocational training programmes, we therefore help our staff in their personal development, to see the bigger picture and to master new challenges.

Digitalisation – HR 4.0

One of these particular challenges is the topic of digitalisation. In 2016, we worked in interdisciplinary teams to develop our first digital competency model that incorporates the requirements facing our employees in the digital age. We then used the results to produce a new HR development model: #DigiCampus. This specialised basic and advanced training programme includes both traditional project management as well as training in agile software development methods and courses on topics such as process modelling. Our new careers website and social media recruiting channels are also helping us to identify new talent to support our digital transformation.

Leadership: more than just 'management know-how'

To keep in step with the accelerating pace of change, leadership is fast becoming a critical success factor for businesses. We've acknowledged this by using personal development programmes to optimally prepare our management staff for their roles and support them in their day-to-day work.

Promote health

We care deeply about the health of our employees. Which is why we actively support this topic. The focus here is on constant improvements to our health management system, which we achieve by performing regular evaluations and accommodating requests made by staff members. Supplementing standard programmes such as talks and sports courses, we have also implemented a 'health control circle'. In addition, our employees

have also been offered advice and services from pme Familienservice since 2015. These range from care and assistance for children and dependants in need of care to crisis counselling and preventive health solutions.

Staff initiatives for sustainability

In 2016, our Sustainability Ambassadors organised the first Interseroh Sustainability Week. Employees were encouraged to participate in numerous activities such as tidy-up days, sharing programmes or ways of commuting that save CO₂. Cycling is also generally promoted, with initiatives such as "Cross-City Cycling", for example. The aim here is to cover as many kilometres by bike in three weeks to contribute to local climate protection and raise awareness about the need to expand urban cycling infrastructure. In 2016, Interseroh's employees clocked up 4,016 kilometres of bike travel during the initiative – thereby avoiding an impressive 570 kilograms of CO₂ emissions.

An open door policy

In light of the current refugee crisis, Interseroh is also looking to actively help with the integration of asylum-seekers. In 2016, the ALBA Group's STEPone 'integration internship' gave two participants the chance to spend six weeks learning more about the company, visiting a language course and making the acquaintance of many new people. The programme is supervised by mentors who offer asylum-seekers help with looking for a training place and when dealing with local authorities. One of these internships was then transferred into an apprenticeship.

1,646

employees worked at Interseroh in 2016



“The work/study degree programme with Interseroh offers me just what I want: an industry with a secure future, options for personal development and a pleasant working environment.”

Robert Neumann,
work/study degree student,
majoring in retail management

Sharing knowledge, motivating and raising awareness

To achieve a future without waste, everyone has to work together – companies, citizens and organisations. As an expert for closed-loop systems, Interseroh contributes its expertise via a number of initiatives to advance the debate and shape opinion – especially among young people.



In Poland, Interseroh's EkoPaka project has been introducing primary school children to recycling since 2015.



REdUSE inspires: in multimedia presentations, school pupils learn valuable lessons about resource overuse.

Interseroh's social engagement also follows the guiding principle of securing the future by taking action today. **Beyond the walls of our own company, we use a broad range of tactics to disseminate and share our knowledge as an educator and thought leader. With our targeted activities and practical instruments, we want to encourage others to contribute actively to resource conservation.**

At the level of academic research, we support the Centre for Sustainable Governance (ZNU) at Witten/Herdecke University in Germany, for example. The focus here is making sustainability an accessible, inspirational topic for current and future management staff.

Sustainability Competence Programme

In early 2017, Interseroh put its commitment to networking into practice as founding member of the new Sustainability Competence Programme at econsense – Forum for Sustainable Development of German Business. Here, know-how is shared with a practical focus to anchor sustainability within the company long term. Specific aspects such as supply chain management and reporting are covered, as is the greater representation of the topic of sustainability in the company's communication strategy.



Getting young people on board

Another focus is raising awareness in the younger generation. Many of our projects here are long-running activities – such as the Eco Dragon project where school pupils take responsibility for contacting companies to collect their empty ink cartridges and drum units in a green 'eco box'. Interseroh then remarkets these cartridges on behalf of participating schools. Pupils can spend the 'green eco points' they earn in a

rewards shop set up specifically for the scheme to buy lesson, sport or play materials for their schools.

We've also sponsored the REdUSE project from the Multivision charity since 2016. Here, multimedia presentations are used to educate pupils about the overuse of non-renewable resources such as ores, minerals and rare earths.

Making learning fun

'EkoPaka' (Polish for 'eco boxes') is a project run by our subsidiary in Poland. Libraries across the country regularly receive new packages with which children can learn about saving resources in a playful way suited to their age groups. For 2017, a joint project with Fundacja Rozwoju Dzieci (Child Development Foundation) is planned, which will develop a digital information pack with real-world examples. Another Polish project has also been started in Lesznowola: Green Memo puts the focus squarely on the idea of learning from and with Nature and educates on a range of topics from botany through to the recycling of composites.

2

new initiatives now supported by Interseroh: econsense and REdUSE

RECOMMENDED READING (available in German only)

Sustainability Management in German Companies, vol. 2

Offers a look behind the scenes at the sustainability strategies of individual firms. Also present in this volume: Interseroh.

Published by: Andreas Model (epubli, 2016)

Circular Thinking 21.0: How we can make the world round again

Offers a wide range of concepts for conserving scarce or environmentally damaging resources and to promote reconditioning and recycling as preferable to the extraction of new resources. Also included: Interseroh.

Authors: Alexandra Hildebrandt, Claudia Silber (Amazon Media EU S. à r.l., 2016)

Sustainability programme



No waste of time

For us, tomorrow is already here. 'Zero waste' is our theory, and closing the loop is our practice. Finding new solutions is our motivation. With our plans and our focus we work every day to ensure that nothing goes to waste. This is how we shape the future.

Setting goals

Every year, we set ourselves goals based on our sustainability strategy. We use these to guide and support our initiatives, and to measure our progress. A full overview of our goals can be found on our website www.interseroh.de/en/sustainability. Here is an excerpt:

Our commitment	Goals	Deadline	Status 2016	
Every year, we want to close three loops – involving products, materials or logistics – for our customers.	Taking back of an additional still-usable product for developing a new product type	End of 2016 and annual goal	IT refurbishment expansion	● △
	Innovative approach to closing a logistics loop for a large customer	End of 2016 and annual goal	Formation of Encory joint venture with the BMW Group	● △
	Setup of an additional and separate collection for establishing an in-house material loop	End of 2016 and annual goal	Start of taking back of ceiling systems made from mineral fibres	● △
	Design a new generation of sorting plant to improve efficiency	End of 2017	New goal	△
We want to improve our customers' sustainability performance by using the services provided within the ALBA Group to save at least 50 million tonnes of resources every year.	Marketing of recycling material to replace primary material for at least three customers	End of 2016	Marketing of secondary material for cleaning instruments, tool and transit packaging for three customers	●
	Annual savings of at least 50 million tonnes of resources	End of 2016 and annual goal	Savings of 51.8 million tonnes of resources (2015), documented by the ALBA Group resources study	● △
	Improving the measurability of the environment impact of our services	End of 2017	New goal	△
We want to reduce our specific ecological footprint from one year to the next.	Regular (at least annual) meetings between all site managers to discuss areas with potential for optimisation	End of 2016 and annual goal	Meetings attended by all site managers not possible for organisational reasons, so bilateral dialogue instead: online meeting planned for 2017	● △
	Reduction in energy consumption	End of 2016 and annual goal	Reduction in absolute energy consumption year-on-year by around 3,300 MWh (approx. 4.5 percent)	● △
	Calculation of the corporate carbon footprint and specific product carbon footprint for Interseroh	End of 2016	Corporate carbon footprint (CCF) first calculated for 2015; calculation of a product carbon footprint postponed in favour of CCF strategy drafting work	● △
We want to be the most attractive employer in our industry.	Creation of new touchpoints in recruiting (incl. social media)	End of 2017	Review of recruiting portals and apps, setup of an internal personnel marketing resource being planned for 2017	△
	Completion of an employee survey/asking supervisors for feedback	End of 2016	Deferred due to prioritisation of growth projects and digitalisation	○
	Identification of additional cooperation partners for the topic of health management	End of 2016	Rollout of the fit4life programme together with a convalescent care centre in Cologne/Leverkusen	●
We want to function as an intermediary for sustainable development, to publicise the idea of the circular economy and discuss sustainability regularly with our stakeholders.	Continuation of lectures and free-to-attend speaking engagements on the circular economy	End of 2016 and annual goal	Cooperative ventures with partner schools in Berlin and Cologne maintained and expanded	● △
	Completion of 100 sustainability audits at suppliers	End of 2016 and annual goal	120 audits completed	● △
	Organisation of a comprehensive programme for refugee help, e.g. in the form of internships, mentoring and integration activities	End of 2016	Organised collection of in-kind donations for refugees at our Cologne site (no set time limit), internships for refugees at ALBA Facility Solutions (AFS)	●
	Drafting of a high-level strategy paper for a stronger focus on social activities related to resource conservation	End of 2017	New goal	△

Publication details

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Photos

- p. 10 (centre): Joint press conference given by Coca Cola and Interseroh, ALBA Group
- p. 10 (bottom right): Dr Stefan Seiss, Coca-Cola
- p. 14 Encory
- p. 15 (top centre): Encory, bottom right Gregor Eggl
- p. 16 (top right): Encory, bottom right Hanno Großschmidt
- p. 27: EkoPaka, Miejska i Powiatowa Biblioteka Publiczna im. Ryszarda Kincla w Raciborzu
- p. 28 (top): REdUSE, Multivision (Charity for Youth and Adult Education)
- p. 28 (centre): econsense – Forum for Sustainable Development of German Business

Paper

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