

interzero[®]
zero waste solutions

WIN
WIN

Shaping the circular economy

SHAPING THE CIRCULAR ECONOMY



The circular economy is a joint project that benefits all of us. A real win-win solution for both businesses and the environment. Work with us to shape the circular economy of tomorrow and join us in a sustainable and liveable world without waste.

If you can think it, do it! We are working with our customers and partners to turn our ideas into reality and move step-by-step towards a genuine integrated circular economy. We are fully committed to achieving our vision and are working flat out, as waste prevention, re-use, and materials recycling make a measurable contribution to easing the burden on our planet — and open up new long-term prospects for the economy, society, and each and every one of us. A **win-win** in the truest sense!

In our Sustainability Magazine, we want to shine a spotlight on exactly how our innovative circular solutions are benefiting both businesses and the environment. Read on to learn more about how the Interzero Materialkonto opens up opportunities for the resilient supply of sustainable raw materials, why manufacturers such as the CLASSEN Group rely on plastic recyclates made by Interzero, and how textile manufacturers such as Marc Cain are

successfully moving away from fast fashion and towards the circular economy.

We look forward to starting a conversation with you about these issues and continuing to drive the circular transformation. Interzero's double win at the 2024 German Sustainability Award certainly shows that we are on the right track. This accolade belongs to everyone who is already working with us to shape the circular economy of the future, and it strengthens our belief that we can achieve great things if we work together!

Sincerely,

Dr Axel Schweitzer
Interzero Chairman and Shareholder

CONTENT



14

Award-winning: Interzero scores a double victory at the 2024 German Sustainability Awards



26

We want moor: Interzero supports Mission to Marsh's climate action project



6

Talking about the future: What opportunities does the circular economy offer companies?



10

Bottle-to-bottle: Interzero's new PET recycling plant



28

Chemical recycling: Sustainable solution for mixed plastic waste



32

Europe-wide commitment: PET recycling project in Italy

06 What we need: Courage, curiosity — and data

Sabine Braun (Accenture) and Britta von Selchow (Interzero) discuss the road to a circular future.

10 PET recycling — looping the loop in Liebenau

How to turn used beverage bottles into food-grade granulate.

14 And the winner is — all of us!

Interzero scores double victory at the 2024 German Sustainability Awards.

16 Farewell fast fashion

Sustainability in vogue: Fashion industry gets fit for the circular economy.

20 Plastic recycles? A firm foundation!

Akzenta's eco-friendly floors contain plenty of recycled plastics.

23 International Zero Waste Academy

Interzero provides the know-how for the circular economy of tomorrow.

24 Overshoot Day? Let's move it!

Working together for a better world: Recycling makes a measurable contribution to easing the burden on our planet.

26 More moors, less CO₂

With its "We want Moor" campaign, Interzero supports the protection of valuable natural areas.

28 Chemical recycling: The best for the rest!

A useful complement of mechanical processes: New plant in Walldürn saves mixed plastic waste from incineration.

32 Partnership for more PET recycling

Europe goes circular: In Italy, the RecoPet project is boosting the return and recycling of PET bottles.

36 Donate a phone, give someone a future

For the environment and for a good cause: Interzero is teaming up with ALBA BERLIN and Caritas to collect disused smartphones.

38 Meet the Team

Around 2,000 employees at Interzero give their all for a world without waste. They introduce themselves on the careers page.

39 Publication details

WHAT WE NEED: COURAGE, CURIOSITY — AND DATA



Helping the planet is best done as part of a team. In this interview, Britta von Selchow (Interzero) and leading sustainability expert Sabine Braun (Accenture) talk about why companies should be getting up to speed in collaborating on the closed-loop economy.

Britta von Selchow: Ms Braun, you've been advising companies about sustainability for 30 years — and there's still plenty more to be talked about here. Where are we today, if we're looking specifically at the circular economy?

Sabine Braun: Sustainability is now much more than just a calling card for businesses. And they need more than just transparency here. Many of them have understood that it's time to make a real transition: that they need to look again at raw materials and rethink their business models. Yet they are nervous about fully committing, which is a great shame. While the circular economy can be a key factor for climate change mitigation, its potential is still largely untapped and so it remains a sleeping giant.

Britta von Selchow: What do companies need to be able to take action now and utilise the potential for themselves?

Sabine Braun: The Green Deal and EU legislation have paved the way here. However, more is needed than the big targets like climate neutrality 2050. Companies need detailed strategies for achieving these goals — as well as courage, curiosity and staying power. And now is the perfect point in time to invest in closed-loop systems: the circular revolution is imminent — and who wants to be on the losing side when it arrives?

Britta von Selchow: In our experience, managing raw materials in the loop — and being able to reuse them for in-house production — is becoming more important for manufacturers for three reasons: to fulfil legal requirements, to be more resilient against fluctuations in supply chains in a land

poor in raw materials such as Germany and — last but not least — to achieve cost advantages by re-using components. Successful loops are created by the stakeholders in a value chain working together, so openness and a readiness to collaborate are key core competencies for our future.

Interzero's Materialkonto

Putting control back into your hands: The Interzero Materialkonto is high-level management software for your recycling process that gives you full control of your available materials. Full transparency and unimpeded strategic access to recycled raw materials: this process chain digital twin is the ticket to the raw materials management of the future.

Successful loops are created by the stakeholders in a value chain working together, so openness and a readiness to collaborate are key core competencies for our future.

Britta von Selchow
Head of Sales Circular Solutions, Interzero



Britta von Selchow

Head of Sales Circular Solutions, Interzero

Britta von Selchow works with our customers to design loops that, mapped to their digital twin, can already be implemented as cost-effective and scalable solutions.



Sabine Braun: I firmly believe that digital solutions like the ones Interzero is fielding will be decisive for advancing the circular economy and the overall transition to sustainability. This is true not only as regards forthcoming reporting obligations like the CSRD (EU Corporate Sustainability Reporting Directive). Sustainability data is now also becoming significant for businesses as a KPI in its own right — it will be unavoidable in the future.

Britta von Selchow: How would you motivate companies to take an active part in shaping the future and maybe step out of their comfort zone when doing so?

Sabine Braun: We don't need so much as a call to action as a brief look at the facts: we're on course to miss the 1.5 °C target and the physical impacts of climate change are now also increasingly felt in Germany. Anyone who wants their children and grandchildren to inherit a liveable planet needs to act — and do so today. We need to be talking positively about the future. We have a considerable wealth of know-how and expertise, and strong SMEs. Germany may well be a 'Land of Ideas' — but these finally have to be put into practice.



Sabine Braun: The ability to think in terms of transactional ecosystems is certainly a key criterion for success. Engaging more in networking, harnessing the innovative strengths of start-ups and developing solutions for industries rather than individual companies — all of this naturally needs digitalisation and artificial intelligence to work at scale.

Britta von Selchow: We fully agree with this philosophy and so we've developed the Interzero Materialkonto ("material account"): a digital twin for the recycling process chain. This is already helping companies to map out their entire raw material loop and efficiently return their production scrap, products, and packaging to their own loop at the end of their lifecycle.



Sabine Braun

Principal Director Accenture, Founder akzente

Sabine Braun is viewed as one of Germany's most experienced sustainability advisors. A communications scientist and journalist by trade, Braun formed the consulting firm akzente in 1993, which is now part of the global strategy consulting and technology services company Accenture.



Britta von Selchow: In a way, it's good that no one has to do it alone when saving the planet: closing loops is a shared task that we can enjoy tackling together. I see this kind of positive team spirit at work both in our company and at our customers. Sustainable value creation just needs the right partners — plus courage, curiosity, and data. Intelligent, digitally optimised recycling creates the new perspectives on raw materials that we need so urgently.

The circular economy is a sleeping giant — with a huge potential that's largely untapped.

Sabine Braun
Sustainability Strategy & Consulting, Accenture

PET RECYCLING — LOOPING THE LOOP IN LIEBENAU



In Interzero's new PET recycling plant, shredded deposit bottles are now being transformed into food-grade granulate for the beverage industry.

Bottle-to-bottle

When it comes to recycling PET beverage bottles from the deposit system, it really is a case of 'turning old into new'. What modern systems now make possible is revealed by a look at the brand-new plant just opened by Interzero in Liebenau, Lower Saxony. Although you won't find any empty bottles here: the material has already gone through several process steps before being delivered. After collection, the PET bottles are shredded, sorted by material and colour, and then washed at a high temperature.



This plant gives us the option of marketing recycled, food-grade PET granulate that we produce in-house. This is 'closing the loop' right here in Germany — a real sustainability benefit for our customers.

Romed Aspmail



Romed Aspmail
Managing Director,
RDB plastics GmbH



Inbound delivery and quality control

The PET flakes are delivered to the recycling plant in one-tonne big bags. The Interzero team takes a sample from every second bag, and then tests this material sample for impurities, residual chemicals, moisture content and viscosity. The actual processing of the flakes only starts once quality control has given the go-ahead.





2

Homogenisation

The flakes are first homogenised in mixing silos, to even out any variations in the composition of the material and therefore make the subsequent processes run more smoothly. A horizontal screw conveyor then moves the material to another, even finer sorting stage, where Interzero makes use of near-infrared (NIR) technology.

3

Near-infrared separator

The NIR separator is fully automatic, separating out any impurities still present, plus unwanted colours like green, yellow or dark blue. Only light blue flakes are allowed to remain, as they positively influence the clear colour hues needed for competitive, production-grade plastic.



4

Extrusion

Now the actual extrusion stage starts, which turns the pre-treated PET flakes into high-quality granulate for manufacturing. This involves the plastic being melted at about 290 °C and fed in with another screw conveyor. This viscous mass passes through several filters before ultimately being pressed through a perforated panel for shredding by a granulator.

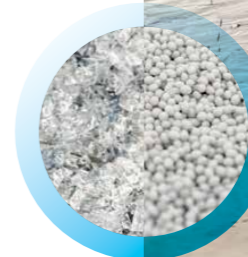
One final processing stage is needed to make the granulate fit for use as a food contact material and this occurs in the solid state polycondensation (SSP) reactor. The material stays in the reactor for about 10 hours at roughly 180 °C, in a vacuum/nitrogen atmosphere that allows oxygen to escape and avoids any unwanted reactions with the material.

5

Back into the loop

The finished granulate is then filled back into big bags and shipped out for further processing. Interzero's customers use the food-grade rPET to manufacture what are known as 'preforms'. These 'bottle blanks' are made using injection moulding and look a little like test tubes: they can be blown up into full-size bottles and — once filled — end up back on the shelves in stores, completing the bottle-to-bottle cycle. The cycle then starts again once consumers return their bottles to collect the deposit.

Before and after:
PET flakes and food-grade granulate



Facts and figures

- Bottle-to-Bottle recycling in compact form: the plant can handle a total of 12,000 tonnes per year.
- Innovative technology: Recycling operates in a vacuum, with parts of the process using a nitrogen atmosphere. This process step ensures that the material stream is free of moisture and unwanted substances that out-gas when the plastic is heated.
- A key benefit for customers from the beverage industry: the plant has been accredited by the European Food Safety Authority (EFSA).



AND THE
WINNER IS —
ALL OF US!



Interzero scoops two prizes at the 2024 German Sustainability Award

We are committed to creating a world without waste — a world worth living in, in which raw materials are systematically recycled, waste is avoided as much as possible, and natural resources are conserved.

In recognition of this comprehensive commitment, we received the German Sustainability Award 2024 in the 'Waste Management and Recycling Industry' category. We were also presented with a special award in the transformation field 'Resources'. We are extremely proud of this achievement and would like to thank everyone who is already working with us to make the circular economy of tomorrow a reality today — our employees, customers, and partners.

The award for a sustainable future

The German Sustainability Award (GSA) is the most important of its kind in Europe, presenting prizes for exemplary achievements to transformation pioneers across all sectors. The award has



Sustained enthusiasm at the award ceremony in Düsseldorf

been given out annually since 2008 by Stiftung Deutscher Nachhaltigkeitspreis e. V., in conjunction with the German Federal Government, the German Council for Sustainable Development, local authority associations, trade associations, civil society organisations and research institutes.



Stefan Schulze-Hausmann
Chief Executive Officer,
Stiftung Deutscher
Nachhaltigkeitspreis e. V.

The GSA provides a platform for innovative sustainability models and helps to publicise them more widely. The sustainable circular economy is the ideal way to achieve transformation. Interzero shows how companies can use innovation and passion to change the world.

FAREWELL FAST FASHION



The textile industry wants to become more sustainable. But how will it transform into a circular economy? From circular packaging to recycling old textiles, companies are keen to find new solutions to help them meet increasingly strict statutory requirements and set them apart as responsible trendsetters.

Since the turn of the millennium, global textile production has more than doubled as part of the never-ending quest to produce more, faster and cheaper. The term “fast fashion” is arguably more synonymous than any other with the dark side of globalisation and excessive, environmentally harmful consumption. Calls for a fundamental transformation of the industry are growing louder, with fashion companies increasingly required to minimise negative environmental and social impacts along their supply chains. Right now, these efforts are focused on packaging.

Marc Cain: sustainably competitive

Anyone searching for an example of how major fashion labels can embrace sustainability and

the circular economy need look no further than Marc Cain. Experts from Interzero analysed the international fashion house’s entire packaging portfolio and helped the company to optimise its recyclability. The result? From plastic coat hangers to shoeboxes, all Marc Cain packaging offers at least ‘good recyclability’ and has earned the “Made for Recycling Interzero” seal, making it fit for the market of tomorrow.

Other manufacturers would be well advised to follow this example and make their packaging more sustainable. The pressure to act is rising, not least in light of the planned Packaging and Packaging Waste Regulation (PPWR). Companies will soon be subject to an array of new require-



MARCCAIN

Interzero’s integrated consultancy services help us to apply our sustainability approach across all of our sales markets while meeting statutory requirements at the same time. Proactively switching to recyclable packaging is one move that will help us to avoid additional costs in the long run.

Robert Boland

Director Logistics & Central Administration, Marc Cain

GOOD TO KNOW — THE PPWR

Anyone keen to avoid compliance breaches and economic disadvantages in the future needs to adjust their packaging portfolio now. How Interzero can provide specific support, explains Managing Director of the Recycling Alliance Frank Kurrat:

The PPWR requires all plastic packaging to have a minimum amount of post-consumer recyclate (PCR) from 2030 onwards.

How can this be achieved?

The availability and quality of plastics from yellow bag collections can vary. Interzero provides planning certainty by giving our partners access to the recycled raw materials they need and developing quality-tested formulations for individual applications at our own centre of competence.

How can companies ensure that the recyclability of their packaging meets all statutory requirements?

Many companies already rely on our globally recognised analytical standards for the “Made for Recycling Interzero” seal to test their packaging and optimise it for sustainability. We provide them with integrated consultancy services relating to recyclability and European EPR requirements, giving them everything they need on the path towards an efficient circular economy.



Frank Kurrat
Managing Director,
Interzero Recycling Alliance



Circular packaging: an important step towards sustainability for fashion companies such as Marc Cain

ments under this EU regulation, including several relating to the recyclability of packaging. The EU’s ambitious targets to reduce waste and introduce Extended Producer Responsibility (EPR) affect all companies that place packaging in the European market.

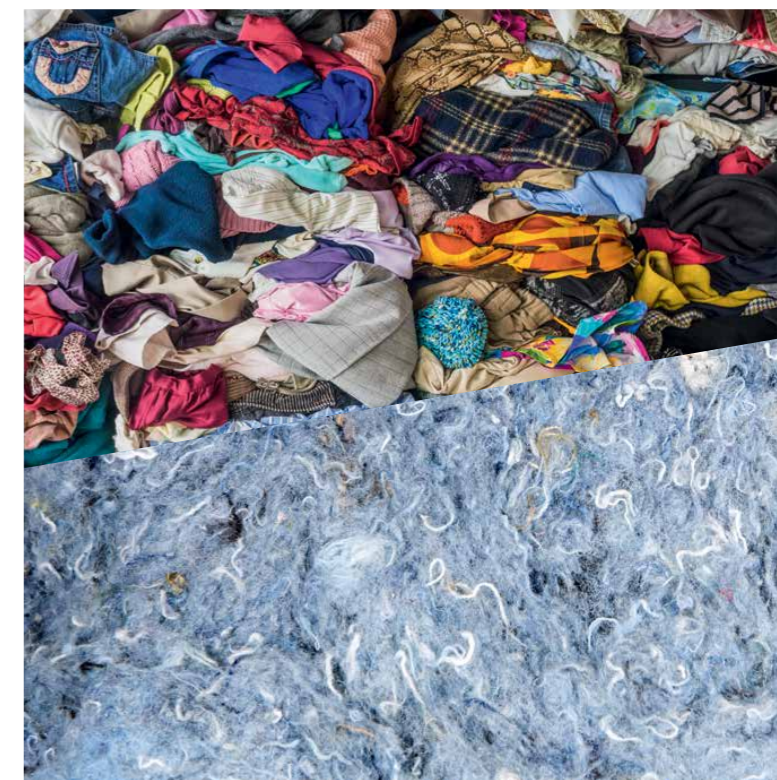
The next step: scaling up textile recycling

Of course, optimising packaging for sustainability is not enough. In fact, the textile industry’s entire value chain is under scrutiny. Steadily rising volumes of textile waste pose a huge challenge, with almost six million tonnes of textiles thrown away in the EU every year — that’s around 11.3 kilograms per person. At present, only one percent of global textile waste makes it back into production via fibre-to-fibre recycling, leaving plenty of scope to the circular economy to make a difference.

EU regulations and directives such as the separate waste collection requirements being introduced in 2025, the Ecodesign Directive, and Extended Producer Responsibility are likely to provide a boost to textile recycling in the near future. Interzero is



Recycling transforms old clothes into new textile fibres — unfortunately, this is still all too rare



also keen to close raw material loops in the textile industry and is already developing solutions to help companies get ready for future EPR requirements. Together with its partners, the company is working to enable the scaling of fibre-to-fibre recycling by building and ensuring a suitable collection and sorting infrastructure. The aim is to provide a comprehensive industry solution that can work for everyone. “Transformation in the textile industry above all requires new system concepts and the willingness to cooperate on the part of key players along the entire textile value chain,” said Julia Haas, Project Manager of Circular Textiles at Interzero. Cheap, throwaway fashion is so last year — but circularity is one fashion trend that is here to stay!



PLASTIC RECYCLATES? A FIRM FOUNDATION!

These are the hidden champions of sustainability: the early-adopter companies who have long since used recycled raw materials for many of their products. Quietly, successfully and with conviction. Like Akzenta Paneele + Profile GmbH, for example.

From the Eifel to the world: Floor coverings based on CERAMIN® can be found anywhere where such materials need to be hard-wearing, sustainable and promote healthy living — from nursery schools in Germany all the way to shopping malls in the USA. A member of the CLASSEN Group, Akzenta manufactures the material at its plant in Kaisersesch. Importantly, CERAMIN® is a low-emission, fully recyclable product that contains no PVC or plasticisers. Recycled material also makes up more than two thirds of its polymer input.

Closing loops — protecting the climate: The regranulate used, recythen, is manufactured by Interzero from post-consumer plastic packaging in an award-winning process. Researchers at the Fraunhofer UMSICHT institute have calculated that the use of one tonne of recythen instead of primary plastics saves 1.1 tonnes of greenhouse gas emissions and 22,254 kWh of primary energy.



We want to work with our customers to close plastics loops in an efficient and sustainable manner. A key factor for success here is the individual advice we give our customers about recyclates.

Marcus Holland

QR code linking to Marcus Holland's profile. **Marcus Holland**
Sales Manager,
Interzero Plastics Recycling



CLASSEN Group production plant in Kaisersesch: where the sustainable material CERAMIN® is made

A STRONG TEAM FOR QUALITY FLOORING

Interview with Guido Stallknecht, Managing Director of Akzenta Paneele + Profile GmbH.



How important are sustainable products to your company?

The family-owned businesses in the CLASSEN Group don't see sustainability and the conservation of resources as trends to follow but as the foundation of our business. Even at the development stage for our CERAMIN® product, we were looking at topics like recyclability and the use of environmentally friendly materials.

What kinds of quality standards do you set for these recyclates?

Above all, quality levels have to be the same as those defined in our technical requirements profile. Our experience with the recythen used has been nothing but positive, with zero non-conformities

discovered to date in any shipment. Apart from fulfilling our strict quality standards, the post-consumer PP is also very easy to process with our plant systems.

Why did you decide to join forces with Interzero?

Interzero is a reliable partner with continuous access to high-quality raw materials thanks to its own recycling operations. This makes it easy to set up a closed-loop system, which is an all-important factor for our value chain and production. This sustainable source of materials not only keeps our production processes environmentally friendly but also secures us reliable access to high-quality raw materials over the long term.

Flooring from CERAMIN®



No PVC



No plasticisers



Low-emission



Fully recyclable



INTERNATIONAL ZERO WASTE ACADEMY

The circular economy needs expertise. The Interzero Academy provides all the knowledge required for a successful circular transformation with courses that are practical, customer-focused, and international.

Companies and consumers alike are being called upon to avoid waste, conserve resources and ease the burden on our planet. Interzero's seasoned experts help the growing zero-waste community by providing targeted training courses in several European countries. "The Interzero Academy is a modern response to the challenge of raising awareness of sustainable closed-cycle resource management in the economy and wider society," said Łukasz Czarnowski, Digital Sales Cross Country Function Head, Interzero Poland. The digital platform provides clarity on topics such as waste management and emissions as well as circular economy issues including non-reusable plastics, deposit systems and battery recycling. With its compact e-learning modules and online videos, the Interzero Academy can share its expertise flexibly, anywhere and at any time.

Since April 2023, experts at the Interzero Academy in Germany have been sharing practical knowledge on subjects including plastics recycling, designing for circularity, waste management, legislation and extended producer responsibility (EPR).

The Interzero Academy reinforces our position as an experienced partner and advisor on environmental protection and circular solutions — and showcases our range of skills in this area.



Przemysław Kuna
Managing Director,
Interzero Academy Poland



OVERSHOOT DAY? LET'S MOVE IT!

7m 16s ... and that's just the beginning! Together with its customers and partners, Interzero is developing new circular solutions to conserve resources, protect the environment and push back Earth Overshoot Day even further.



Climate change and resource scarcity will shape our future. In this future, companies that reduce global overshoot will have the greatest chance of increasing their value. Just like Interzero. Every euro generated by the company reduces global overshoot.

David Lin
Chief Science Officer, Global Footprint Network

Humanity is living beyond its means, as Earth Overshoot Day ever more clearly reminds us every year. Calculations show that in 2023 humanity on 2 August had exhausted all the natural resources that our planet can theoretically renew within the space of one year.

With the clock ticking, we are taking action

Interzero's 'One World. Zero Waste. Let's #MoveTheDate!' campaign is taking a stand against the ongoing exploitation of Earth. According to current calculations made by the Global Footprint Network, global Earth Overshoot Day in 2023 would have occurred 7 minutes and 16 seconds earlier without the recycling activities completed by Interzero. "We are proud that even today we give back larger quantities of resources than are consumed," said Sebastiaan Krol, Managing Director Interzero Holding, adding, "even if

we're only talking minutes so far, the measurable global relief is a great incentive for us to further expand our activities." The next milestone for Europe's leading circular economy service provider is to manage at least five million tonnes of raw materials in the loop, thereby further boosting the positive effects on climate and resource protection.

The facts

The Global Footprint Network bases its calculation of Earth Overshoot Day on a resource accounting tool called the Ecological Footprint. Using this indicator, the non-profit organisation compares the current resource demand of the global (or a country's) population against Earth's capacity for biological regeneration.

Valid basic data for Interzero's contribution to conservation of resources is provided by the scientific 'Resources SAVED by Recycling' study carried out by Fraunhofer UMSICHT. According to this study, by managing about 2.1 million tonnes of recyclables in the loop Interzero saved more than 8.7 million tonnes of primary raw materials and avoided around one million tonnes of greenhouse gas emissions in 2022 alone.



MORE MOORS, LESS CO₂

The world's moors capture more CO₂ than all of its forests combined. While three percent of the Earth's surface is moorland, 95 percent of moors in Germany have already been destroyed.

These ecosystems play an important role in the fight against climate change, yet an ever-greater expanse of moorland is drying out. Interzero is not prepared to accept the loss of these valuable carbon reservoirs. After all, the company already does everything it can through packaging recycling to ease the burden on the climate and conserve natural resources.

We want moor: the climate protection alliance

Interzero is working with the charitable organisation Mission to Marsh to protect moorlands. As a premium sponsor, the company specifically invests in restoring the Venner Moor near Osnabrück. The core aim of the joint "We want moor!" campaign is to restore a piece of peatland for every tonne of licensed sales packaging. This should equate to around 30,000 square metres by the end of 2024. Staff at Interzero are joining its customers in supporting the project as moor patrons. After all, we cannot protect the climate without peatlands — every little helps!



Moors have superpowers

Ann-Christin Kornelsen, peatland researcher and founder of Mission to Marsh, PhD candidate on the MOOSland project at Osnabrück University

There are plenty of myths about moors. What do these ecosystems do from a scientific perspective?

As carbon reservoirs, they make a major contribution to reducing greenhouse gases. Moors also serve as natural water filters, protect against floods and drought, and are hotspots for an incredible array of plant and animal species — biodiversity is the name of the game here. That's why preserving and restoring peatlands is so crucial for maintaining the ecological balance and safeguarding the quality of life on our planet.

At the end of 2023, Mission to Marsh was named the best social innovation start-up in the German state of Lower Saxony. What role do partnerships play in the mission's success?

Partnerships such as the one with Interzero are vitally important. As well as providing us with financial support, our shared communications enable us to reach many more people who might not have known much about the superpowers of peatlands before now.

CHEMICAL RECYCLING: THE BEST FOR THE REST

The perfect complement to mechanical recycling: our new sorting plant in Walldürn will enable the chemical recycling of mixed plastics on an industrial scale. This will rescue even more raw materials from the incinerator and allow them to be processed into high-quality products.

As things stand, most mixed plastics that cannot be mechanically recycled end up being incinerated. To let these raw materials also be managed in the loop, companies from the recycling, petrochemicals and plastics industries are working together to expand chemical recycling. This has lots of potential: “Chemical recycling can handle material streams unsuited to mechanical recycling and therefore conserve resources while avoiding waste incineration,” says Dr Markus Hiebel, Head of Department Sustainability and Participation at the Fraunhofer Institute for Environmental, Safety, and Energy Technology UMSICHT.

Focus on mixed plastics

Interzero processes more than 800,000 tonnes of lightweight packaging from yellow bag and bin collections every year. Roughly half of this is recycled mechanically and used for the production of regranulates for the plastics industry, for example. Another quarter is sorting residues, including items that shouldn't be in the yellow bin in the

first place. The last 25 percent consists of mixed plastics that cannot be clearly assigned to a sorting fraction and which previously ended up being sent for incineration. Interzero has developed a new sorting method that targets this material mix. “While our sorting plants to date have focused on monomaterials like PE and PP, these new technical systems are generating plastics streams that are tailored to the chemical recycling methods used by our partners,” explains Dr Richard von Goetze, Head of Chemical Recycling at Interzero.

Walldürn plant set to go live in 2026

In November 2023, construction work began in Walldürn (Baden-Württemberg) to build Europe's largest sorting plant for the production of raw materials for chemical recycling — a joint venture between Interzero and OMV. This partnership will create around 120 new jobs as well as a bright future for the circular economy. Once the plant is operational in 2026, it will process up to

We value Interzero's long-standing expertise and regard the promising collaboration with this business partner as a joint investment in an innovative future increasing the circularity of plastic waste.



Maximilian Grasserbauer
Senior Vice President Circular Economy, OMV

260,000 tonnes of mixed waste plastics every year. “In this way, we believe we will be able to generate large quantities of material for chemical recycling,” von Goetze explains. “In turn, this will enable our partner companies to produce new plastics — and at food-grade quality.”

New plastics from non-recyclable mixed plastic waste

The OMV case: The company will process the mixed plastics from the Walldürn based sorting plant in its ReOil® plant, where mixed plastics are cracked into their basic components via pyrolysis. The pilot facility can process 100 kilograms of waste plastic into 100 litres of pyrolysis oil per hour. A new plant with a capacity of 16,000 tons per year is currently being constructed at the OMV site in Schwechat, Lower Austria. The next

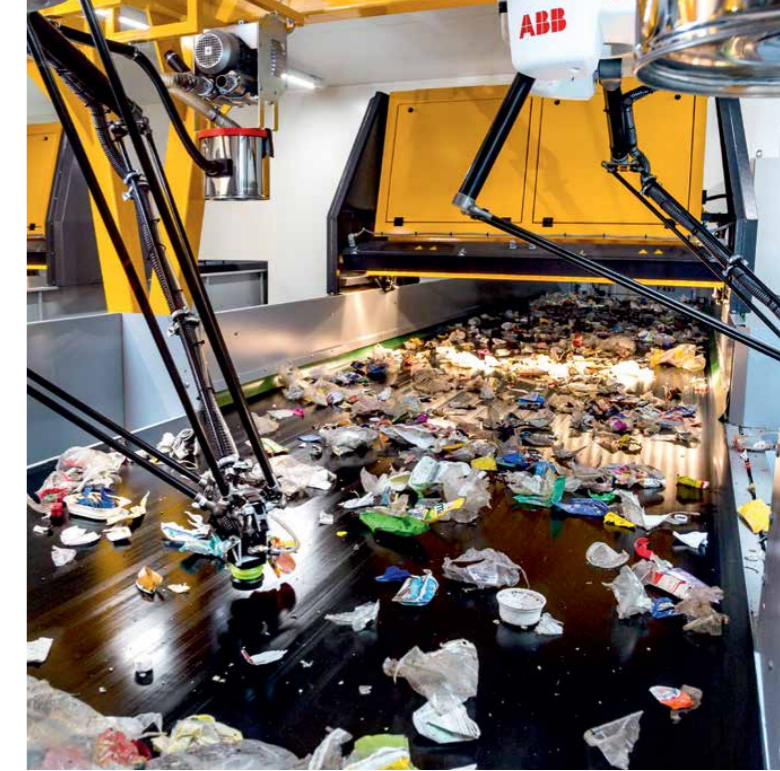
step is the development of a ReOil® plant on an industrial scale with a planned capacity of up to 200,000 tons per year. The recovered raw materials will be reused for the production of plastics for various application fields. These plastics will have an ISCC PLUS certification (International Sustainability & Carbon Certification), ensuring traceability throughout the entire supply chain and guaranteeing that the value chain meets all environmental and social standards.

Sustainable cooperation with Eastman

A different process, the same goal: Together with the US company Eastman, Interzero is opening up a new recycling route for PET packaging that is difficult to recycle. The company’s future molecular recycling plant in France will ultimately recycle more than 200,000 tonnes of PET waste per year.



Eastman Renew material



LWP sorting plant in Marl



“Interzero and Eastman are committed to reducing plastic waste and building loops,” says Reinier de Graaf, Director Feedstock Strategy at Eastman. “We are pleased to be able to establish a close collaboration with Interzero to obtain some of the raw materials required for our plant.” Eastman’s polyester renewal technology breaks down mixed PET waste into its monomers and then reassemble them into a high-quality material. With the inherent efficiencies of an integrated plant and the renewable energy sources available in France, the facility is expected to work with significantly lower greenhouse gas emissions than with conventional, oil-based processes. It’s a concept that’s also been well received by brand manufacturers, as Eastman is already producing at scale in the US and commercialising worldwide its recycled materials: Among other things, Eastman’s recycled plastics are processed into reusable drinking bottles, household appliances, consumer electronics or cosmetics packaging.

The French project has gathered a great support from global brands. LVMH Beauty, The Estée Lauder Companies, Clarins, Procter & Gamble, L’Oréal and Danone leading the way by signing letter of intent for multi-year supply agreements.

Next steps

Working to close loops together and save valuable raw materials: while businesses make new technologies and capacities available, the further expansion of chemical recycling will also be dependent on political frameworks — such as a recognition of the process in the German Packaging Act. Interzero’s Chairman Dr Axel Schweitzer at the ground-breaking ceremony for the new plant in Walldürn: “I am convinced that with the aid of chemical recycling, the recycling rate in Germany can and will increase significantly in the future. With this, we will also take another major step towards our vision of a world without waste.”



Dr Richard von Goetze
Head of Chemical Recycling,
Interzero





PARTNERSHIP FOR MORE PET RECYCLING

In Italy, Interzero has joined forces with non-profit COREPLA to set up a pilot project for a deposit return scheme focusing on PET bottles. It's been a runaway success.

The deposit system makes it possible: in more and more European countries, used disposable PET bottles are being returned to the cycle

Germany has a long history of deposit systems for beverage bottles, with the deposit on non-refillable PET bottles actively helping to reduce plastic waste, for example, while reclaiming raw materials for high-quality bottle-to-bottle recycling. The introduction of bottle return systems has also been gaining pace in other European countries. Ultimately, the aim is to meet the ambitious EU collection targets while preparing for a proposed EU-wide mandatory deposit scheme from 2028. Countries who have yet to enshrine a deposit return scheme in national law include Italy and Poland. In both countries, Interzero is helping local actors to close the necessary loops — by providing advice, sharing experience and working on specific projects.

2028
DATE FOR A PROPOSED EU-WIDE
MANDATORY DEPOSIT SCHEME

PET deposit project in Italy

Interzero partnered with COREPLA, the leading national consortium for the collection and recycling of plastic packaging, to introduce **RecoPet**, an ambitious, nationwide pilot project on a voluntary basis across Italy in 2022. Here, Interzero's business partner aimed to achieve an extensive collection system, traceability for the PET flows and scalability for the chosen solution. As a first step, more than 100 reverse vending machines were set up on the premises of large retailers. To motivate consumers to return their empty PET bottles, Interzero also developed an app, which shoppers can use to collect bonus points that they can then redeem for coupons.



Reverse vending machines in stores — an important step towards PET recycling in Italy



We have created a real win-win partnership that strengthens our strategic position while demonstrating our proven expertise in innovative business solutions.

Sergio Patacchini
Project Manager, Interzero Italy

Win-win partnership

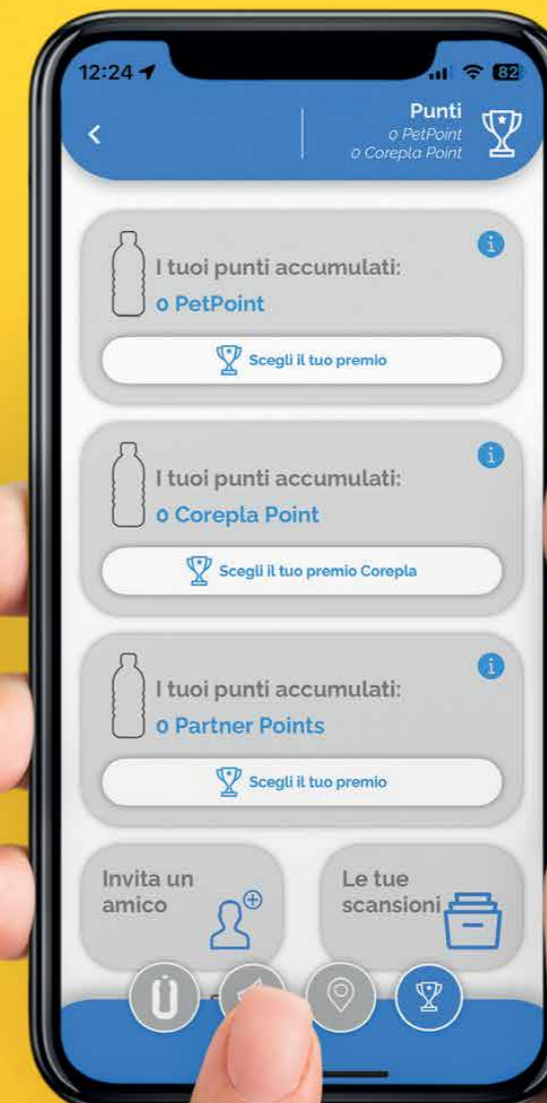
The project was an immediate success: by the end of 2023, Italy achieved an impressive collection rate of 78 percent of PET bottles on the market — surpassing the EU requirement for 2025 of 77 percent. COREPLA received funding from the EU to expand existing capacities; within three years, 1,000 more deposit return machines will be installed in retail stores. And Interzero Italy also benefits:

“We have created a real win-win partnership that strengthens our strategic position while demonstrating our proven expertise in innovative business solutions,” says Sergio Patacchini, Project Manager Interzero Circular Solutions Italy. The collected experiences provide a solid foundation to successfully roll out the project further — and potentially also to support the implementation of a national return system.

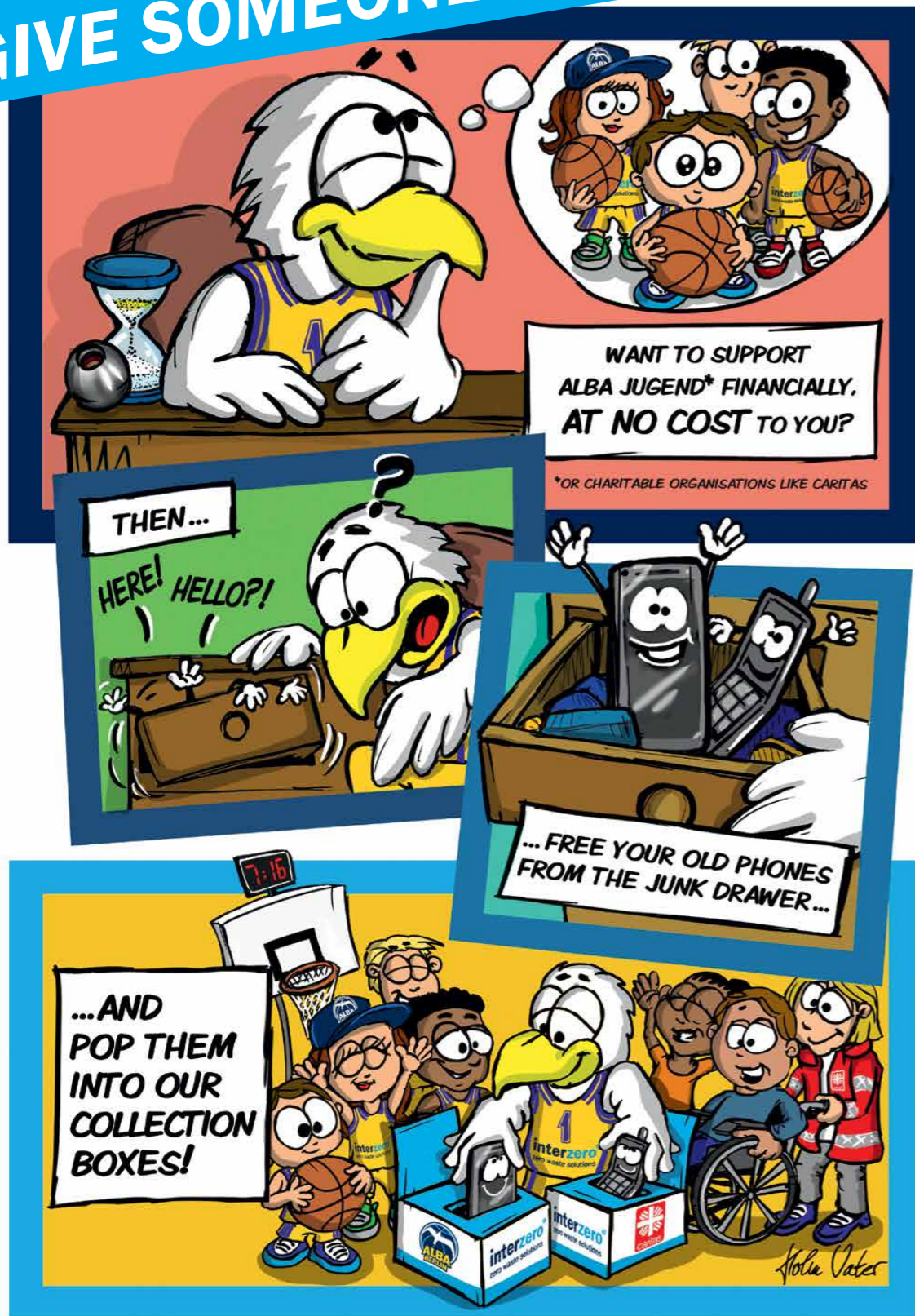
The RecoPet app

The RecoPet app developed by Interzero gives consumers an additional incentive to return empty PET bottles to the cycle as they can now collect points and receive rewards and discounts in return. All they have to do is download the app, dispose of their bottles in the reverse vending machine

and then scan the barcode on the display. Points earned can be redeemed at participating retailers. The available rewards also include items made from recycled PET — for example sweatshirts or backpacks.



DONATE A PHONE, GIVE SOMEONE A FUTURE.



Interzero is teaming up with partners including ALBA BERLIN and Caritas to collect disused mobile phones for the environment and for a good cause.

Get your phone out of the drawer and into the loop! At the end of 2023, Interzero and basketball club ALBA BERLIN launched their season-long “Donate a phone, give someone a future” campaign. By the end of February 2024, fans had already handed in 300 forgotten handsets at the Albatrosses’ home matches and club shop.

Collecting for a good cause

Caritas is also working hard for good causes with its CSR Competence Centre and has a long-term partnership with Interzero that underlines its sustainable commitment to social projects and environmental protection. Available to companies, organisations and associations free of charge, Caritas Smartphone Boxes allow employees to effortlessly discard their unused devices while making a positive impact at the same time.

A big win for the community and our environment

Donors can rest assured that every phone thrown into a collection box helps to protect resources while scoring points for the community. Interzero processes old, fully functional devices and sells them via the gebrauchte-technik.de online shop, while any defective equipment is stripped down

Scoring points for the environment: ALBA BERLIN captain Johannes Thiemann (left) and team-mate Louis Olinde (right) show their support for the collection campaign



and recycled. The proceeds benefit our partners’ sustainable projects, such as ALBA JUGEND and their community work with young people.

Get involved ...

... and invite your employees to donate their phones. At no cost to you, Interzero will provide collection boxes specially developed for this purpose according to the criteria set out in the EU Directive on the transport of dangerous goods and take care of all the logistics, making device disposal safe, uncomplicated and sustainable.

Collect smartphones
with us!



The Caritas Smartphone Box allows everybody to ‘do their bit’ for good causes and the environment. We’re creating a win-win situation that helps us to conserve resources and protect the environment while raising funds for sustainable projects.

Carina Uhlen
Managing Director, Caritas CSR Competence Centre

MEET THE TEAM

Around 2,000 Interzero employees give their all for the long-term success of our customers — and our shared vision of a world without waste.

A strong team holds the key to success. To ensure our employees can make full use of their talents, Interzero seeks to create a positive environment based on respect, invests in training and education, and promotes diversity and equal opportunities. Our online format 'Meet the Team' provides an authentic insight into the working lives of our staff.



Visit Interzero's careers page. Scan now to watch videos and learn more!



Oscar Fernando Heredia,
Production Manager,
reports on his daily routine at the plastics recycling plant on the Liebenau site.



Nadine Oswald,
Quality assurance,
recalls how she got started at Interzero and explains how quality assurance works in the production of high-quality rPET granulate.

PUBLICATION DETAILS

Publisher

Interzero Holding GmbH & Co. KG
Lützowstraße 105
10785 Berlin
Germany
www.interzero.de/en

Paper

Cover: 300 g/m² Circleoffset Premium White - FSC®
Interior: 140 g/m² Circleoffset Premium White - FSC®

Sustainability contact

Sybilla Merian
sybilla.merian@interzero.de
www.interzero.de/en/sustainability

Photos

- | | | | |
|---------|---|---------|---|
| Page 9 | Portrait Sabine Braun: Accenture | Page 25 | Portrait David Lin: Global Footprint Network |
| Page 14 | German Sustainability Award: Interzero | Page 27 | Portrait Ann-Christin Kornelsen: Mission to Marsh |
| Page 15 | German Sustainability Awards: Interzero
Portrait Stefan Schulze-Hausmann:
Frank Fendler | Page 28 | Cosmetics packaging: Eastman |
| Page 16 | Suspended goods: Marc Cain | Page 29 | Portrait Maximilian Grasserbauer: OMV |
| Page 17 | Portrait Robert Boland: Marc Cain | Page 31 | Cosmetics packaging: Eastman |
| Page 18 | Logistic: Marc Cain | Page 34 | Vending machine: COREPLA |
| Page 20 | Plastic flakes: Akzenta;
Floor: Akzenta | Page 35 | Visualisation App: COREPLA |
| Page 21 | Location: Akzenta | Page 37 | Portrait Carina Uhlen: Caritas |
| Page 22 | Portrait Guido Stallknecht: Akzenta | | |



Materials
Transport
Production
Delivery



g CO₂e
per print product
311,2





www.interzero.de/en



www.linkedin.com/company/interzero



www.instagram.com/interzero



www.facebook.com/interzero.official



www.xing.com/pages/interzero

Interzero Holding GmbH & Co. KG
Lützowstraße 105
10785 Berlin
Germany
www.interzero.de/en
sustainability@interzero.de

Interzero sustainability magazine, published in May 2024.

