

### Closing loops – protecting the climate

An important step towards 'zero waste': more and more companies are now playing an active part in closing recyclable loops. And successfully – as the 'resources SAVED by recycling' study shows.

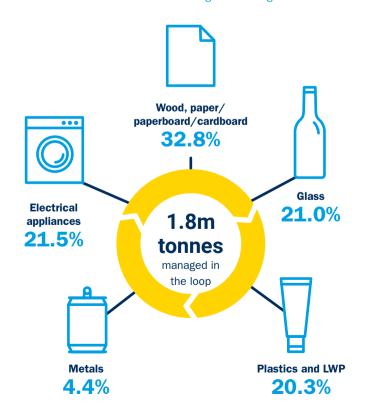
Facing climate change, resource scarcity and fragile global supply chains, our need for a transition to sustainable raw materials has never been greater. The more effective our strategies for avoiding waste, giving used products a second life, and recycling valuable materials, the better prepared our economies will be to meet future challenges. To close these loops, Interzero is investing in intelligent technologies and innovative services.

### A climate and resource protection drill-down

As our annual 'resources SAVED by recycling' study shows, recycling not only greatly reduces our impact on the environment, but also helps to ensure the secure supply of raw materials. This kind of reliable data is crucial to clearly illustrate the benefits of recycling and support our transition to a circular economy. Which is why, every year, we partner with Fraunhofer UMSICHT to prepare and publish a comprehensive report on our environmental performance. This lets us express our resource and greenhouse gas savings in figures rather than just words.

### Our year-end results for 2021\*

Interzero managed **1.8 million tonnes** of materials in the loop. This avoided the use of **12.5 million tonnes** of primary resources. We also avoided **1 million tonnes** of greenhouse gas emissions.





12.5m tonnes of primary resources were saved – the same weight as 5,227 fully grown sequoia trees.

Overall, saving around

1 million

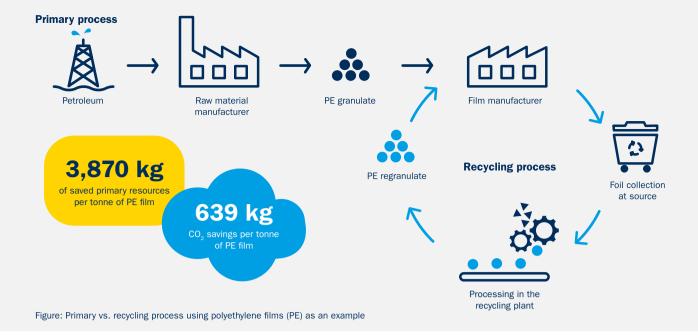
tonnes of greenhouse gases
prevented environmental
damage amounting to

199 million euros\*\*.



\*Source: Fraunhofer UMSICHT

\*\*Source: Federal Environmental Agency



# Life-cycle analysis shows: recycling is the clear winner

To measure the environmental impact of recycling as precisely as possible, Fraunhofer UMSICHT has developed its own method, based on a detailed comparison between primary production and recycling.

For 15 years, this distinguished institute has been investigating how Interzero's recycling activities impact resource consumption and the degree to which the management of materials in the loop can reduce emissions of harmful greenhouse gases. As a first step, researchers take a closer look at each individual material flow. Taking polyethylene (PE) as an example, all the process steps involved in making the plastic - from oil extraction and transportation to the refinery to distillation and polymerisation - are taken into account. The same approach is taken to the secondary process: starting from picking up used plastics to sorting and preparation, and then on to shredding and melting in the extruder to make the PE regranulate.

The team at Fraunhofer UMSICHT is made up of specialists in many disciplines, who source their data not only from databases but also from Interzero's own key figures on recycling. The fully integrated life-cycle analysis programme 'GaBi'

"Less environmental impact and a more secure supply – there is no reasonable alternative to recycling raw materials."

Dr Markus Hiebel, Head of Sustainability and Participation Department, Fraunhofer UMSICHT

then calculates figures for the raw materials used and greenhouse gases emitted in the primary process and the recycling process. It's a comparison well worth making, since even the use of Interzero's recycled plastic 'Procyclen' alone cuts climate-damaging emissions by 56 percent in contrast to the use of primary plastics made from crude oil.

# Recycling de-stresses the planet – Let's #MoveTheDate!

Good for Planet Earth: by working with customers and partners to mitigate climate change and conserve resources, Interzero is helping to push back 'Earth Overshoot Day' in the calendar. In 2021, calculations from the Global Footprint Network measured this shift as 4 minutes and 20 seconds. Doesn't sound like much? Well, it's a start!

"The greatest threat to our planet is the belief that someone else will save it."

Robert Swan

The 'One World. Zero Waste. Let's #MoveTheDate' campaign aims to get people focused on conserving natural resources. Employees, customers, and partners – everyone is invited to get involved and help us put a stop to the accelerating exploitation of the environment.

Our 'resources SAVED by recycling' study provides both the underlying data for calculations and the starting-point for further activities aimed at de-stressing our planet.

