



# Sustainability Report 2023

# Page 52

Pioneering work on environmental impact data using an externally verified calculation model



We want to enable everyone to understand the **impact of their individual consumption** decisions – and this calculation model is designed to do just that.

[Read more](#)

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# 01 Introduction

**On our digital platform, we offer more sustainable alternatives to buying new.**



- 
- 1.1 About refurbished
  - 1.2 Founder's letter
  - 1.3 About this report



# refurbed at a glance

refurbed is a digital marketplace for renewed ("refurbished") products

**Our vision** is to make consumption sustainable. We are aware that current consumption practices are far from sustainable. We are committed to shaping a future where sustainable consumption is possible.

**Our mission** is to become the leading platform for sustainable products and services.

**Refurbishment** is the process of reconditioning used products to function like new.

Operating in 10 active markets across Europe:

AT, BE,  
CZ, DE,  
DK, IE,  
IT, NL,  
PT, SE

~ **270.000 †**  
CO<sub>2</sub> emissions

saved\*

Our product range includes smartphones, tablets, laptops, household appliances, skis, e-bikes, and more.

**94 Bn. l**  
water

saved\*

**885 †**  
electronic waste

saved\*

\*Savings since foundation compared to new purchase based on environmental data from ISO 14040/44-verified calculation model.



# Sustainability overview

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## OUR WHY.

Society's current linear economic system leads to a multitude of ecological problems such as climate change, loss of biodiversity and depletion of natural resources. We believe that we need to change the way we produce and consume goods, and develop appreciation for the resources we use. We aim to be part of the solution by offering our customers high-quality products with significantly lower negative environmental impacts. We hope to inspire many customers to adopt a more sustainable lifestyle by demonstrating how easy the circular economy can be.

## OUR HOW.

On our digital platform, we offer more sustainable alternatives to buying new. Our refurbished devices are professionally inspected, cleaned, and refurbished; hardly differing in functionality from a new purchase. Together, with our refurbishers and customers, we aim to make refurbished the new consumption standard and extend the lifespan of products.

## OUR WHAT.

Our current product range includes several thousand products – from smartphones, laptops, and tablets to household appliances, skis, e-bikes, and more.



# Did you

... the share of global greenhouse gas emissions for digital devices such as **smartphones, desktops, displays, and notebooks** ranges between **0.4%** and **1.8%**<sup>1</sup>?

... electronic waste is the fastest-growing waste stream in households, mainly due to increased consumption of electronic devices, short lifecycles, and limited repair options?

... the amount of electronic waste in Europe alone exceeds **10** million tons per year, with only about **40%** currently being collected for recycling<sup>2</sup>?

... the production phase of new electronic devices such as smartphones, tablets and laptops accounts for the largest share of greenhouse gas emissions in the lifecycle of these products<sup>3</sup>?

... the average lifespan of smartphones, televisions, and vacuum cleaners is **2.3** years shorter than their intended lifespan<sup>4</sup>?

... if all smartphones in Europe were used for just one year longer, we could save the emissions equivalent of **1,000,000** cars<sup>5</sup>?

... current studies estimate that in the EU, **~700** million household electronic devices are unused? If only **35%** of these devices were recycled in the EU, approximately **5,222** tons of material could be recovered, providing significant amounts of secondary raw materials<sup>6</sup>?

... end-user devices produce nearly twice as much CO<sub>2</sub> as data centers? Emissions are primarily due to the short lifespan of the devices<sup>7</sup>.

... humanity consumed over **500** billion tons of materials between **2018** and **2023**? That accounts for **28%** of all materials consumed since **1900**<sup>8</sup>.

# know

<sup>1</sup> Global Electronics Council, Climate Change Mitigation

<sup>2</sup> Final Report ProSUM

<sup>3</sup> Product Environmental Report iPhone 11, Lenovo ThinkPad T560 Product Carbon Footprint

<sup>4</sup> EEA: Longer-lasting electronics benefit environment.

<sup>5</sup> Coolproducts don't cost the Earth - Briefing - EEB - The European Environmental Bureau

<sup>6</sup> Identifying the impact of the circular economy on the Fast-Moving Consumer Goods Industry

<sup>7</sup> McKinsey Studie: Smartphones, Drucker und Co erzeugen fast doppelt so viel CO<sub>2</sub> wie Rechenzentren

<sup>8</sup> Circularity Gap Report 2024



**Our vision** is to minimise our negative impact as much as possible.

# Founders' letter

## Rethink New: our data-driven approach in the fight against climate change

As some of you may know, the journey of refurbished began over seven years ago with our vision to make consumption sustainable. By extending the lifespan of laptops, smartphones, tablets and more, we aim to make a measurable contribution to environmental protection. By driving the circular economy, we reduce the negative impacts we, as a society, have on our planet. Seven years later, we are more than proud to present to you better data, more research, and an impact portfolio of environmental projects that generate positive effects for both people and the planet alike.

We want to take this opportunity to reflect on our successes in reducing CO<sub>2</sub> emissions, electronic waste, and water consumption: In the last seven years, we have been able to save 270,000 tonnes of CO<sub>2</sub>, 94 billion litres of water and 885 tonnes of electronic waste compared to new purchases by selling >4.8 million refurbished appliances. We have initiated a transformative movement – and this would not have been possible without you: our customers, friends, refurbishers, partners, and community.

In this sustainability report, we want to introduce you to our environmental strategy, among other things. This strategy is based on three essential steps:

1. Measuring negative environmental impacts,
2. Reducing negative environmental impacts; and
3. Financing environmental protection projects.

Our vision is to minimise our negative impact as much as possible. Last year, we published our first environmental report, presenting concrete data for the first time, which



This work was a real milestone for us – one we are proud of, and view as an opportunity for growth and innovation.

was collected in collaboration with Fraunhofer Research GmbH; research that has revolutionised the refurbishment industry.

We quantified the environmental impacts of five different refurbished devices – including smartphones, laptops, and tablets – and their influence on CO<sub>2</sub> emissions, electronic waste, and water consumption compared to equivalent new products. This work was a real milestone for us – one we are proud of, and view as an opportunity for growth and innovation.

Today, we are taking it a step further: As pioneers in our sector, we have commissioned Fraunhofer Research GmbH to develop a verified calculation model for us. This model allows us to list the environmental impacts on a product level by entering technical data. The new data clearly shows that when customers choose a refurbished product instead of a brand new one, they help minimise negative environmental impacts. With this groundbreaking calculation model, we can quantify a significant portion of the environmental impacts of the products sold through our platform – in a measurable, scalable, and transparent manner.



## Founders' letter

### A new chapter for positive impact

Our concept of positive impacts goes beyond our core business. We want to do more, contribute more, and change the way we consume. Measuring impacts is the first step – and now we are taking the next one. That's why seven years ago, we chose to partner with great sustainable organisations. This commitment led to partnerships with organisations such as Eden Reforestation Projects, Reforest Nation, Wald4Leben, and more. For every product sold, we have planted a tree, resulting in over 6.6 million trees planted so far. We are very proud of this achievement and continue to see the long-lasting positive effects of the trees on people and the environment.

In a time defined by ecological challenges such as climate change, loss of biodiversity, and excessive resource consumption, we have evolved our strategy. We are now investing in an impact portfolio of various highly effective environmental projects.

By restoring landscapes in the global south operated by local communities, we are restoring ecosystems. With proper electronic waste recycling in Ghana, we aim to reduce the health and environmental risks caused by the industry in which we operate. Furthermore, we are financing carbon removal technologies in Europe to support their development and scaling. We quantify the positive impact these projects generate and communicate them in a measurable and transparent manner with our audience.

Now we have four areas where refurbished generates this positive impact: Our core business as part of Europe's circular economy, our advocacy alongside EUREFAS and more, our data-driven approach to understand and collectively reduce the environmental impacts of refurbishment with our refurbishers, and our new impact portfolio of environmental projects.

Let's Rethink New,  
**Jürgen, Kilian and Peter**

Three handwritten signatures in blue ink, corresponding to the names Jürgen, Kilian, and Peter mentioned in the text above.



# About this report

Welcome to refurbished's Sustainability Report. This report provides a comprehensive insight into our environmental practices and sustainability efforts. In this chapter, you will find important information about the scope of the report, the methods used, our goals, and an opportunity for feedback.

## Scope of the report

This report grants comprehensive insights into refurbished's environmental practices and future plans. We shed light on our business model, our product portfolio, and our holistic approach to sustainability. Additionally, we address social and governance issues. A particular highlight is the first-time publication of our environmental strategy, which is based on three pillars: measuring our environmental impacts, reducing them, and financing environmental protection projects.

## Methods used

To measure our environmental impacts, we use various methods, including the Product Environmental Footprint (PEF) and the Corporate Carbon Footprint (CCF); and for

financing environmental protection projects, CO<sub>2</sub> certificates are utilised.

- **Product Environmental Footprint (PEF):** which we partly simplify in this report as environmental impacts, is a method for comprehensively assessing the environmental impacts of a product throughout its entire lifecycle. Various factors such as raw material extraction, production, transportation, use, and disposal are taken into account.
- **Corporate Carbon Footprint (CCF):** The CO<sub>2</sub> balance measures the total greenhouse gas emissions caused by a company's business activities.
- **CO<sub>2</sub>-Certificates:** Part of our environmental strategy is financing environmental protection projects. We partially buy CO<sub>2</sub> certificates, which enable us to reduce a portion of our CO<sub>2</sub> emissions.

Furthermore, we use the term "CO<sub>2</sub> emissions" as a simplified designation for CO<sub>2</sub> equivalents. CO<sub>2</sub> equivalents are a unit of measurement that converts various greenhouse gases into a common denominator, namely the climatic effect of carbon dioxide (CO<sub>2</sub>). This simplification aims to make the information easier to understand.



## Objectives of the report

This report pursues several objectives. Firstly, we aim for transparency regarding our sustainability efforts. Secondly, we aim to share our sustainability initiatives to inspire other companies and individuals. Thirdly, we demonstrate that sustainable business models can also be financially rewarding – a conviction deeply rooted in our corporate philosophy.

## Feedback and contact

Your opinion matters to us! We welcome feedback on our Sustainability Report. Contact us at [sustainability@refurbed.com](mailto:sustainability@refurbed.com). Additionally, we have prepared a feedback form that can be accessed via the attached QR code. We value feedback and are always striving to improve our sustainability efforts.

Your opinion matters to us! We welcome feedback on our Sustainability Report.

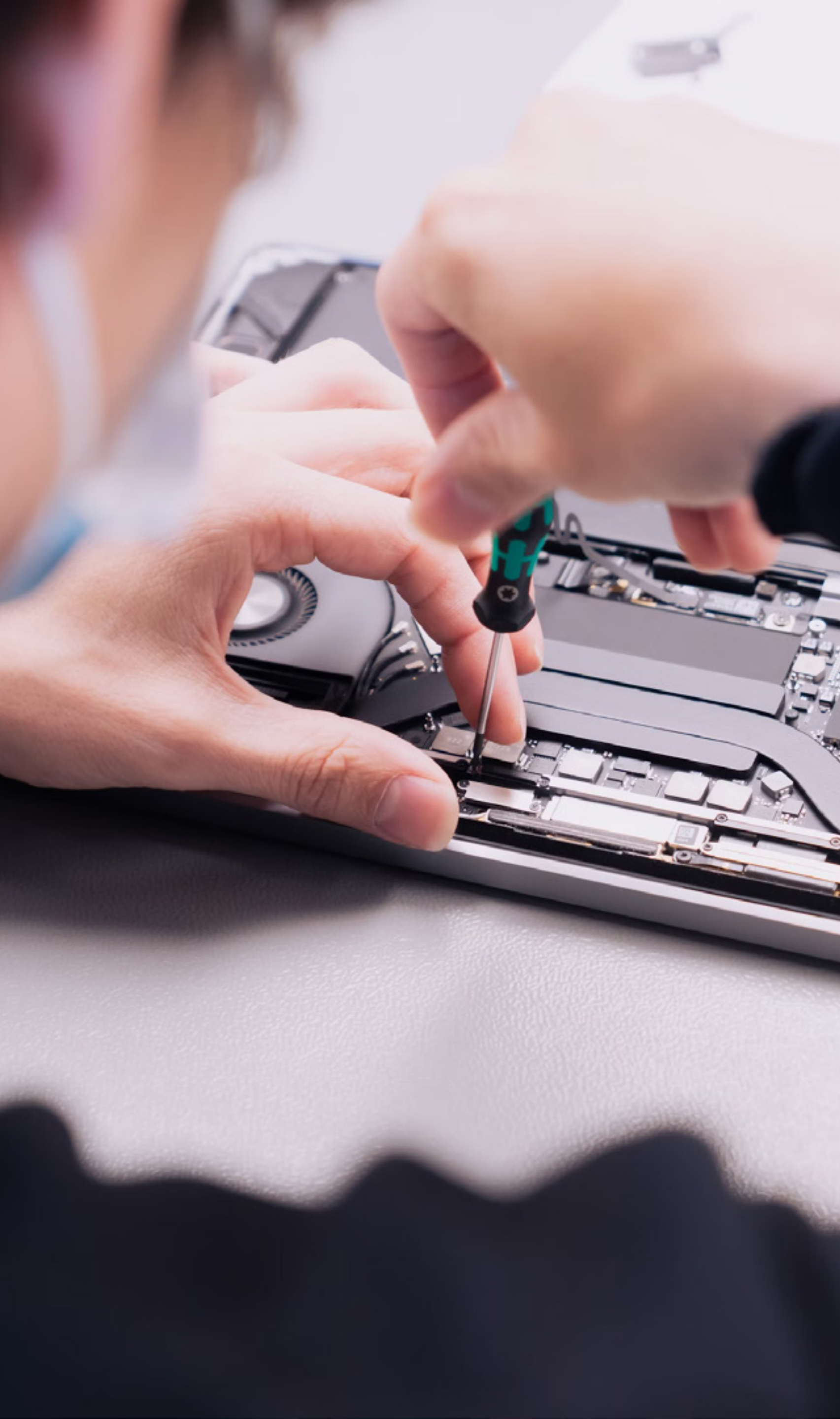


# 02 Our approach to sustainability

**By promoting the circular economy, we can live within the limits of our planet.**



- 2.1 Our business model and value chain
- 2.2 From linear to circular
- 2.3 Our political engagement for sustainability
- 2.4 Our product portfolio
- 2.5 The refurbishment process in detail
- 2.6 Thorough quality management
- 2.7 Living sustainability at refurbished
- 2.8 Social sustainability
- 2.9 Governance



# Our approach to sustainability

Refurbishment is a crucial pillar of the circular economy.

High product quality is our top priority, achieved through thorough quality management and rigorous selection of refurbishers.

All our products come with an included

# 30-day trial

We are in favour of a stronger **circular economy**

# 80%

and sustainability policy at EU and national levels.

of our customers purchased new products before buying from us.\*

and a minimum

We leverage our reach to strengthen the refurbishment movement and raise awareness.

# 96%

of our customers would choose us as their destination platform for their next non-new product.\*

# 12-mo

warranty.

\*Source: refurbished customer survey (n=6206) in DACH (Feb 2023)

# Our business model and value chain



Our business model promotes the circular economy [...]

refurbed is a platform for renewed products – from smartphones, tablets, and laptops to vacuum cleaners, air fryers, coffee machines, skis, fitness equipment, e-bikes, and more. We connect refurbishers with customers, catering to the consumer market and since 2022, business customers as well. Through rigorous quality management, we ensure that only the best refurbishers sell their products via our platform. The products are rated in three conditions: Excellent, Very Good, or Good<sup>9</sup>, based on their outward appearance. All devices are fully functional. Our business model promotes the circular economy by reintroducing renewed products into the market and offering customers a high-quality alternative to new products.

<sup>9</sup>Excellent: works like new, looks like new, Very good: works like new, may show slight signs of wear, Good: works like new, may show clear signs of wear

## Our approach to sustainability



# Direct insights: How refurbishers perceive our partnership

We directly asked our refurbishers about their experience collaborating with refurbished and the benefits this partnership brings to them:

- We are delighted to collaborate with refurbished to provide our customers with the best possible experience.  
- **Jan Rubinski, CEO of Janado**
- Some of the significant benefits of partnering with refurbished include the large market share in DACH and the seamless listing process, avoiding duplicates and enabling us to list >90% of our current inventory on refurbished.  
- **Stephen Kirwan B2B Manager at Loop Mobile**
- Over the past 2 years, refurbished has been one of our most important strategic business partners, enabling us to significantly increase our revenue in existing markets and quickly and easily enter new markets.  
- **Emilie Betton, Marketplaces Manager at Recommerce Group**

- At AEG, innovation and sustainability have always been paramount. Therefore, the partnership with refurbished aligns perfectly with our strategy.  
- **Daniel Tratz, Head of E-Commerce at Electrolux**
- The collaboration with refurbished is a positive experience from start to finish. Hats off to refurbished for making the world a greener place while offering top-notch refurbished products!  
- **Lisa Sroczynski, Marketplace Manager Dyson Austria**

"Hats off to **refurbished** for making the world a greener place while offering **top-notch refurbished products**"



# Voices of our customers

## We support changes in consumer habits:

We are proud to support our customers in changing their consumption habits. Through our marketplace, we not only offer high-quality products, but also create a unique customer experience.

## Contributing to the demand for refurbished devices:

Before the first contact with refurbished, about 60% of our customers knew about refurbished products, but only a small proportion (~7%) had purchased them before. 80% of our customers had exclusively purchased new devices before their first purchase with us. Encouragingly, around 95% of our customers indicate that they would buy from refurbished again for their next non-new product purchase.

## Why customers buy from refurbished:

Our customers appreciate the ease of sourcing refurbished devices, especially in terms of trust and price transparency. This is also reflected in our customer feedback. High product quality, cost savings and sustainability are the three main reasons why customers shop at refurbished:



Encouragingly, around 95% of our customers indicate that they would buy from refurbished again for their next non-new product purchase.

**Feedback from Sweden:** "The opportunity to buy better used products seems to be the only alternative to buying new for the environment and a sustainable future."

**Feedback from Ireland:** "More environmentally friendly, less wasted resources and cheaper."

**Feedback from Germany:** "Because it's cheaper than new, still shows the same quality, and you also get a warranty on the device."

**Feedback from the Netherlands:** "For this price, you can still buy a good product and give it a second life."

**Feedback from Italy:** "Products like new, at an excellent price, and good for the planet."

**Feedback from Austria:** "The signs of the times point to the sustainable use of resources, and your well-structured company contributes to making this happen. Thank you very much for that and sustainable success!"

**Feedback from Denmark:** "Because it is a cheaper and more environmentally friendly alternative to buying from brand new. I don't need the latest product."

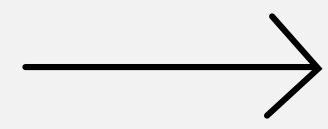
## Rating our sustainability efforts:

The sustainability efforts of refurbished are rated as "very good" by the majority of our customers. In the DACH region, Ireland, Sweden (98%), and Italy (99%) of surveyed customers stated that they were "very satisfied" with our sustainability efforts. This underscores our commitment to a sustainable and satisfactory customer experience.

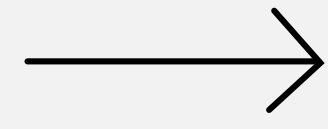
# From linear to circular

## Linear economy

01



02



03



Take



Make



Dispose

Society's current economic system mostly operates on the principle of a linear economy. Resources are extracted, converted into products, consumed, and then disposed of as waste – often referred to as “take, make, dispose.” This approach leads to significant waste of valuable, limited resources and poses a serious burden on our environment. Globally, 100 billion tons of material are consumed annually, with more than 90% being wasted<sup>10</sup>. Between 2018 and 2023, we consumed over 500 billion tons of materials – 28% of all materials consumed by humanity since 1900<sup>11</sup>. In 2023, global circularity was only 7.2%, a 21% decrease since 2018. This means that only 7.2% of materials circulate back into the economy at the end of their life cycle<sup>12</sup>. At the same time, the actual lifespan of many products is drastically shorter than their intended lifespan, leading to even greater waste of valuable resources. The linear economic model exceeds the safe environmental boundaries of our planet concerning land, water and air quality<sup>13</sup>.

By promoting the circular economy, however, we can live within the limits of our planet. The circular economy is an approach where fewer resources are extracted, products are used for longer periods, and materials are brought back into the cycle; for example, through reuse. The circular economy can contribute to sustainable development by decoupling economic growth from the use of limited resources. Additionally, it can help address global challenges such as climate change, environmental pollution, biodiversity loss, and waste<sup>14 15</sup>.

Various strategies are part of the circular economy, including repair, reuse, refurbishment,

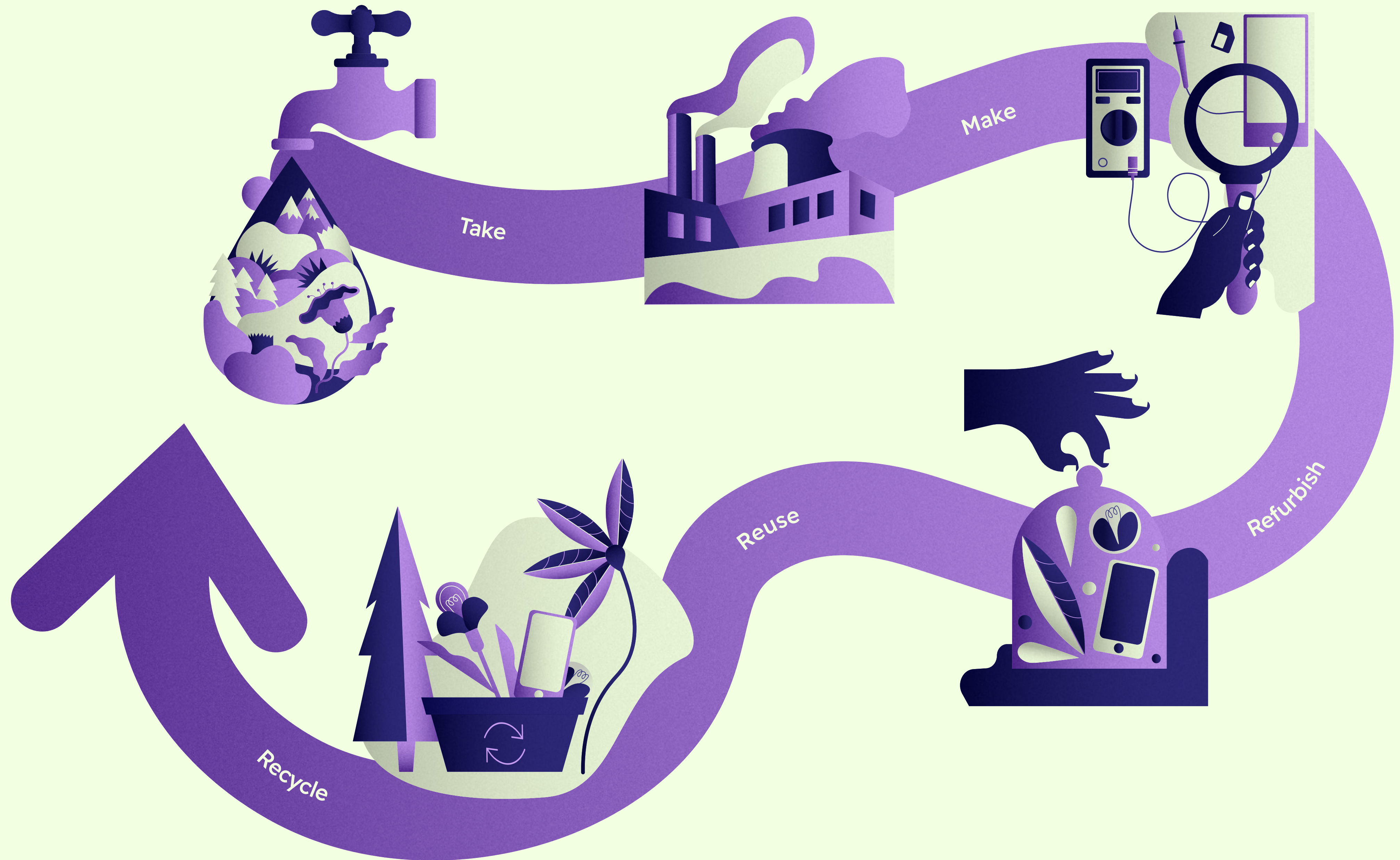


**This approach leads to significant waste of valuable, limited resources and poses a serious burden on our environment.**

remanufacturing, and product recycling. The circular economy can also be directly integrated into product design, such as designing products for durability, making repairs and upgrades easy, or using materials with high recycling content.

Here at refurbished, we focus on the area of refurbishment, renewing products to extend their lifespan. Refurbishment recovers value from used products and reduces the amount of waste and materials formed by the production of brand-new products. This also reduces CO<sub>2</sub> emissions<sup>16</sup>.

Refurbishment involves thoroughly testing used products and replacing defective parts. Refurbishment significantly extends the lifespan of products, reducing consumption and resource waste.



<sup>10 11 12 13 14</sup> [Circularity gap world](#)

<sup>15</sup> [Ellen MacArthur Foundation: What is a circular economy](#)

<sup>16</sup> [Van Weelden et al. 2016: Paving the way towards circular consumption](#)



# Our political engagement for sustainability



We also believe that change must occur at all levels [...]

For us at refurbished, there is no doubt that a change in how we produce and consume is necessary. We must, as a society, transition to thinking in cycles. We also believe that change must occur at all levels – consumers, businesses, and policymakers must chart new paths. Particularly in terms of the circular economy, there is still much room for improvement. As a leading marketplace for refurbished products, we not only possess significant expertise in this area, but also reach thousands of people daily. We leverage this reach to make a positive impact

**We must, as a society, transition to thinking in cycles.**



and advance the change our environment needs, together with like-minded individuals. By advocating for robust sustainability laws, we strive to ensure responsible use of our planet's resources, encourage companies to fulfill their social and ecological obligations, and shift our societal consumption behaviour. By demonstrating that ambitious sustainability laws are not only necessary, but also economically viable, we present an alternative to the status quo.

Our political engagement is based on three pillars: Firstly, in our public affairs efforts, where we contribute our positions on the circular economy and refurbishment at Austrian, German, and EU levels into the legislative process. We do this through statements during the evaluation processes of new laws, our participation in working groups like the Circular Economy Task Force, or even in personal exchanges with decision-makers, such as Environment Minister Leonore Gewessler's visit to our office.

The second pillar is collaboration with like-minded entities. We are members of several associations representing circular economy interests in Austria, Germany, Sweden and Brussels. Examples include the European Refurbishment Association EUREFAS, the Right to Repair Campaign, the Circular Economy Forum Austria, the Bundesverband Nachhaltige Wirtschaft Germany, and Hållbar E-handel's working group Recommerce in Sweden. Here, we contribute our expertise and positions, leveraging the greater political weight of these associations, as they speak with the voice of many like-minded companies.



In this way, we achieved many successes last year. The best examples are the new EU Ecodesign Directive or the Right to Repair.

Additionally, we fight against greenwashing with the "Green Claims" directive [...]

Additionally, we greatly benefit from ongoing exchanges and in sharing our circular economy expertise at events like Ireland's National Sustainability Summit. We also take on leadership roles within these associations, such as serving on the board of EUREFAS.

The third pillar is our community. Sustainability is as important to many of our customers as it is to us. Therefore, we are active on political issues through our social media channels, our blog, or even this Environmental Impact Report, inviting our followers to participate. A good example was our newsletter campaign on the EU's climate goals for 2040. Here, we provided a pre-formulated response advocating for science-based and ambitious climate goals. Via the newsletter, we offered a simple way to submit this response to the EU's public consultation process – and we were overwhelmed by how many people followed our example and raised their voices. Together, we create change!

In this way, we achieved many successes last year. The best examples are the new EU Ecodesign Directive or the Right to Repair. The Ecodesign Directive regulates how products become more durable, repairable, and sustainable. It includes a ban on the destruction of unsold clothing, an end to planned obsolescence, the introduction of digital product passports, and the first legal definition of refurbishment at the EU level.

The newly enacted Right to Repair will allow us as consumers to have our devices repaired more affordably, as spare parts become cheaper, and manufacturers can no longer block repairs. On the contrary, in the future, a repair must be

offered, and afterward, the warranty will also be extended! Additionally, we fight against greenwashing with the "Green Claims" directive and aim to ensure better collection and recycling of waste and old devices through the Waste Framework Directive. We also support the implementation of the Austrian circular economy strategy as much as possible through our involvement in the Circular Economy Task Force. In Germany, where a national strategy is still being developed, we contribute our viewpoints to strengthen the refurbishment sector.

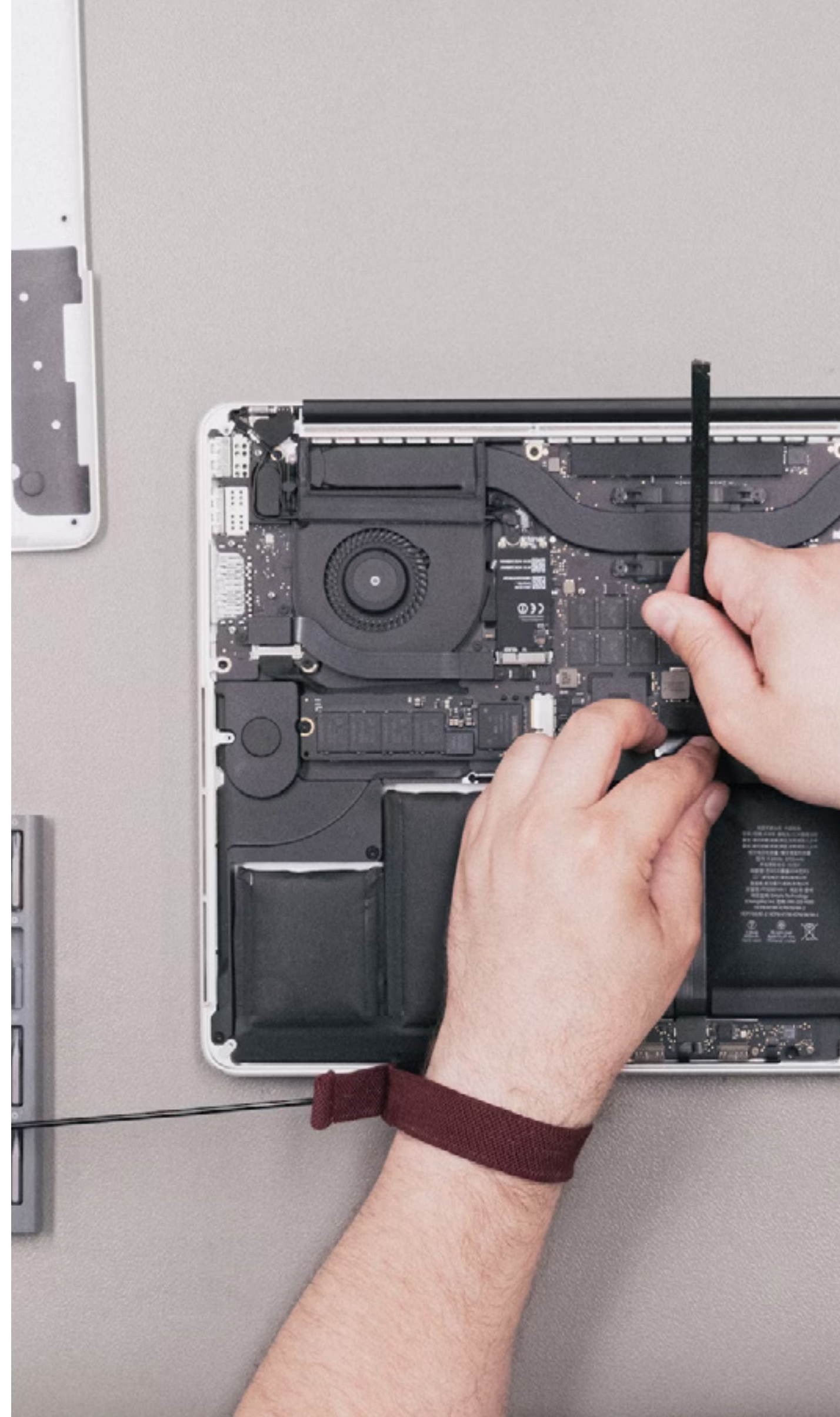
This year, we will focus our efforts on closing stricter rules against the greenwashing currently practiced by many companies, promoting fair competition between independent repair shops and manufacturers, drastically increasing waste and old device collection and recycling, and adjusting internal market rules to the requirements of a circular economy.

Furthermore, we want to ensure that the transition to a circular economy and a high level of sustainability standards remain high on the





agenda of newly elected legislators. Therefore, our work will shift towards fundamental issues, focusing less on technical solutions and more on the direction in which we, as a society, want to move. This gives us the opportunity to focus on the bigger picture and find innovative, creative ideas. However, it also means that we can expect fewer concrete next steps and potentially lose momentum in political implementation, which is why it's paramount that we as a society move together to keep pressure on our politicians and make positive change.



Member of  
**EUREFAS**  
 European  
 Refurbishment  
 Association



**EUREFAS** is the European Refurbishment Association, and has 20 members. EUREFAS aims to represent the common interests of European refurbishers, thereby promoting the development of a circular economy and contributing to the creation of effective policies and legislation at the European level. EUREFAS is active in legislative processes on topics such as ecodesign, the waste framework directive, the circular economy action plan, and the right to repair.

The **Right to Repair Campaign** is a coalition of European organisations advocating for the right to repair. It includes civil society organisations, repair businesses, voluntary repair initiatives, public institutions, and actors from the refurbishment sector from various European countries. The goal of this movement is to achieve comprehensive and inclusive right to repair legislation, including free access to repair information and spare parts, designing products for longer lifespan and repairability, and banning practices that prevent repairs (such as part-pairing or obsolescence).

# Our product portfolio



**Our main goal is to continuously expand our product portfolio and enter additional European markets.**

In this chapter, we provide an overview of our diverse refurbished product portfolio, which includes consumer electronics such as smartphones, tablets, and laptops, as well as kitchen and household appliances, sports equipment, refurbished business, and our trade-in service. Our main goal is to continuously expand our product portfolio and enter additional European markets. This is to enable as many consumers as possible to adopt an environmentally friendly lifestyle and establish refurbished as the new norm.

Our refurbished products undergo rigorous quality controls, function like new, and are sold with a free 30-day trial and a minimum 12-month warranty. By refurbishing, we contribute to conserving resources and extending the lifespan of devices.

Over 95% of our product portfolio consists of traditionally refurbished products, with

the remaining 5% being products that were previously in circulation as demo units, returns, or overstock. Precisely quantifying and categorising various used products poses challenges in the industry. We support efforts at the European level to enable more standardisation in the coming years, including initiatives such as the introduction of a digital product passport.



## Founders' Comment: Expansion into new markets and categories

To reach more people and expand our positive impact further, we are expanding into new categories such as sports and diversifying our product portfolio. We aim to inspire more people with refurbished products in 10 European markets – and make refurbishment the new normal in areas far beyond smartphones and laptops.

# Consumer electronics

2.4

Our product portfolio



## Electronic devices

Among our most popular electronic devices are professionally renewed smartphones, tablets, and laptops. These products marked the beginning of our journey to refurbish high-quality electronic products and offer a sustainable alternative to new devices. Additionally, we also offer a diverse selection of products such as smartwatches, consoles, printers, televisions, and cameras. Currently, we have over 10,000 renewed products in these categories available.

[...] offer a sustainable alternative to new devices.



Scan the QR code and see our range of electronic devices



### Kitchen and household appliances

In 2021, we introduced the category of kitchen and household appliances and established direct partnerships with reputable manufacturers. Our offering includes refurbished coffee machines, kitchen appliances, and vacuum cleaners.

In 2022 and 2023, we gained many brand partners, including names like Rocket, Trifo, Zaco and OneLife. In close collaboration, we aim for continuous improvements in the refurbishment process, supported by our data-driven approach and growing industry expertise. Collaborating with quality-oriented brands creates a win-win situation. Our customers benefit from high-quality refurbished devices at affordable prices, while our partners can expand their sustainable product range.



Scan the QR code and see our range of kitchen appliances



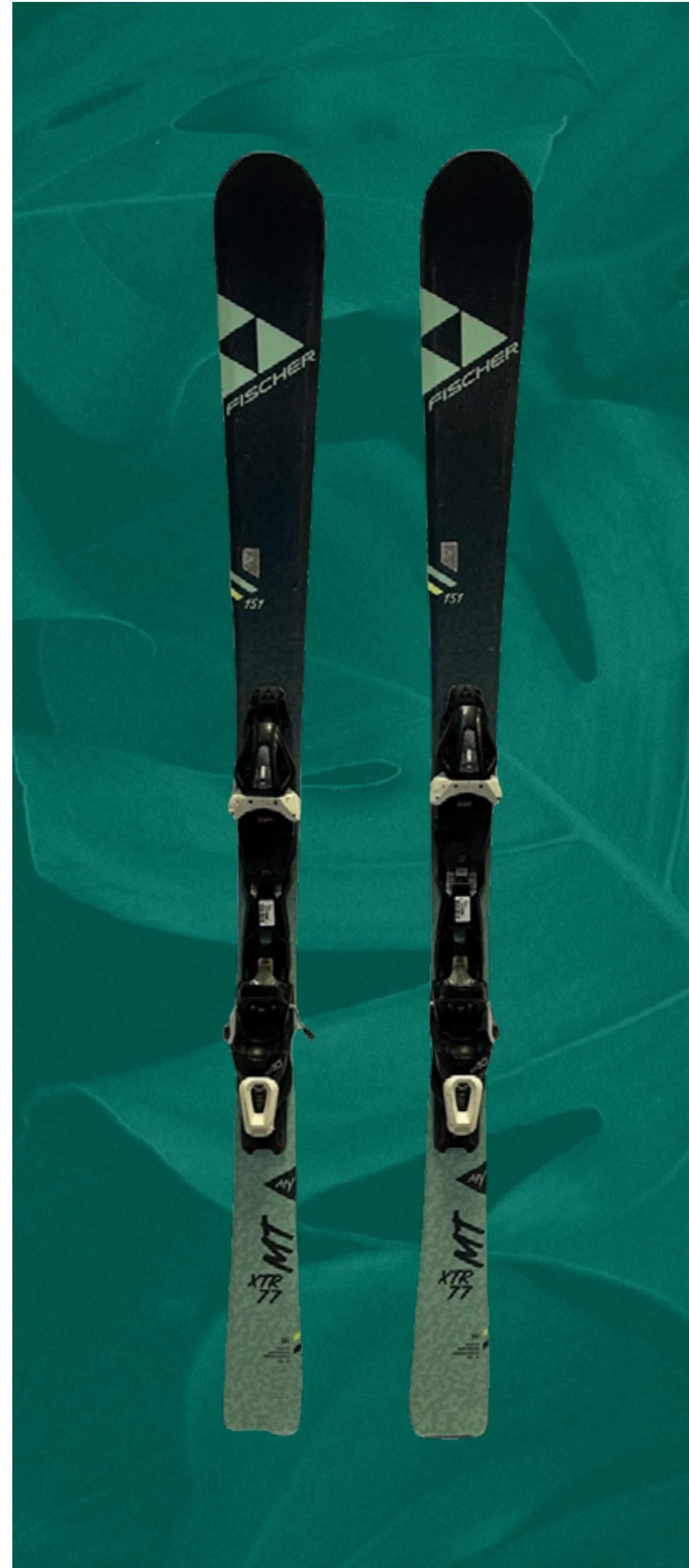
Scan the QR code and see our range of household appliances



### refurbed Sport: Circular diversity for an active lifestyle

In 2022, we asked our customers in which other areas we could support them in making their consumption more circular - the overwhelming response: Sports.

At the end of 2022, we introduced refurbed Sport with the aim of offering the largest selection of high-quality refurbished sports equipment. Since then, our sports category has grown exponentially, providing our customers with a range of refurbished products, including bicycles (including e-bikes and children's bikes), winter sports equipment (including skis and snowboards), as well as fitness equipment (from treadmills to rowing machines and more), and a variety of more sustainable yoga and sports accessories. refurbed Sport has been available in all markets since February 2024.



### Our product portfolio



Similar to the electronics sector, we work closely with our suppliers to ensure that our range of refurbished sports items meets the same quality standards that customers can expect from refurbed.

Our diverse sports suppliers include both traditional refurbishers and rental companies and direct brands. This allows snowboards from a rental season or outgrown children's bikes to get a second life. In this way, we offer our customers maximum product selection and provide our suppliers with a great solution to support them in creating circular business practices.



Scan the QR code and see our range of sports equipment

# refurbed Accessoires & refurbed PLUS



At refurbed Direct, one of our goals is to promote the longevity of renewed products.

Our range of screen protectors, cases, and bags - from tempered glass to phone cases, and laptop bags to camera accessories - aims to help customers protect their devices over a longer period. We also offer phone cases made from recycled or biodegradable materials such as flax and hemp. Our aim is to increase the proportion of sustainable products and extend the proportion of recycled packaging to 80% of our product portfolio.

In addition, with refurbed PLUS, we offer our customers insurance that goes beyond the warranty. This allows our refurbed devices to be used worry-free. If something does happen to break, our repair network is ready to minimise new purchases and promote the circular economy.

Furthermore, our customers can opt for a 3-year warranty for an additional fee.

**Our aim is to increase the proportion of sustainable products and extend the proportion of recycled packaging to 80% of our product portfolio.**





# refurbed Business

More and more companies are recognising the growing importance of sustainability and responsible action. refurbed Business enables companies to easily combine financial savings and environmental protection.

refurbed Business offers companies across Europe a cost-effective way to provide their employees with high-quality work equipment such as smartphones, laptops, and screens - up to 40% cheaper than new products. In addition to budgets, the environment also benefits greatly from company purchases, as refurbishment saves the majority of CO<sub>2</sub> emissions, electrical waste and water consumption compared to new purchases. With our new ISO 14040/44-verified calculation model, the CO<sub>2</sub> footprint can now be provided as a certificate for companies and public institutions and officially recognised in their CO<sub>2</sub> balance sheet. This is a simple and cost-effective way to reduce CO<sub>2</sub> emissions in procurement.

In addition, refurbed Business offers companies flexible payment options, a free minimum 12-month warranty, and personalised support from refurbed's Key Accounting Team. As Michael Lackner, CEO of Dr. Sasse Facility GmbH, emphasises: "refurbed is fast, competent, and reliable. [...] - the concept convinces every time. We can only recommend refurbed to everyone." Positive experiences such as this one illustrate



Refurbed  
business

that choosing refurbished products is not only environmentally and financially sensible, but also provides high-quality solutions for companies.

For companies that want to return their electronics to the cycle after use, refurbed Business offers a Buy-Back programme. Through our Buy-Back programme, we can give used corporate electronics a second life, thereby creating a real circular economy. Josef Staša, Head of IT at Bitpanda, underscores this, "Through refurbed, we can extend the lifespan of our old IT devices. [...] refurbed Business also seamlessly takes care of the transport, which makes the whole process incredibly convenient for us."

Companies that choose refurbished products or return their old devices to the cycle position themselves as pioneers in sustainability and can now officially communicate and demonstrate this as part of their Corporate Social Responsibility strategy.



## Founders' Comment: We provide CO<sub>2</sub> data for the sustainability reporting of our B2B customers

Transparency lies at the heart of credible sustainability initiatives, which is why we provide CO<sub>2</sub> data for the sustainability reporting of our B2B customers. Verified sustainability reports will become mandatory for many companies in the future due to European legislation. We enable companies to make informed purchasing decisions and incorporate reduced environmental impacts, for example of company equipment, into business decisions and the carbon footprint.

# The refurbishment process in detail

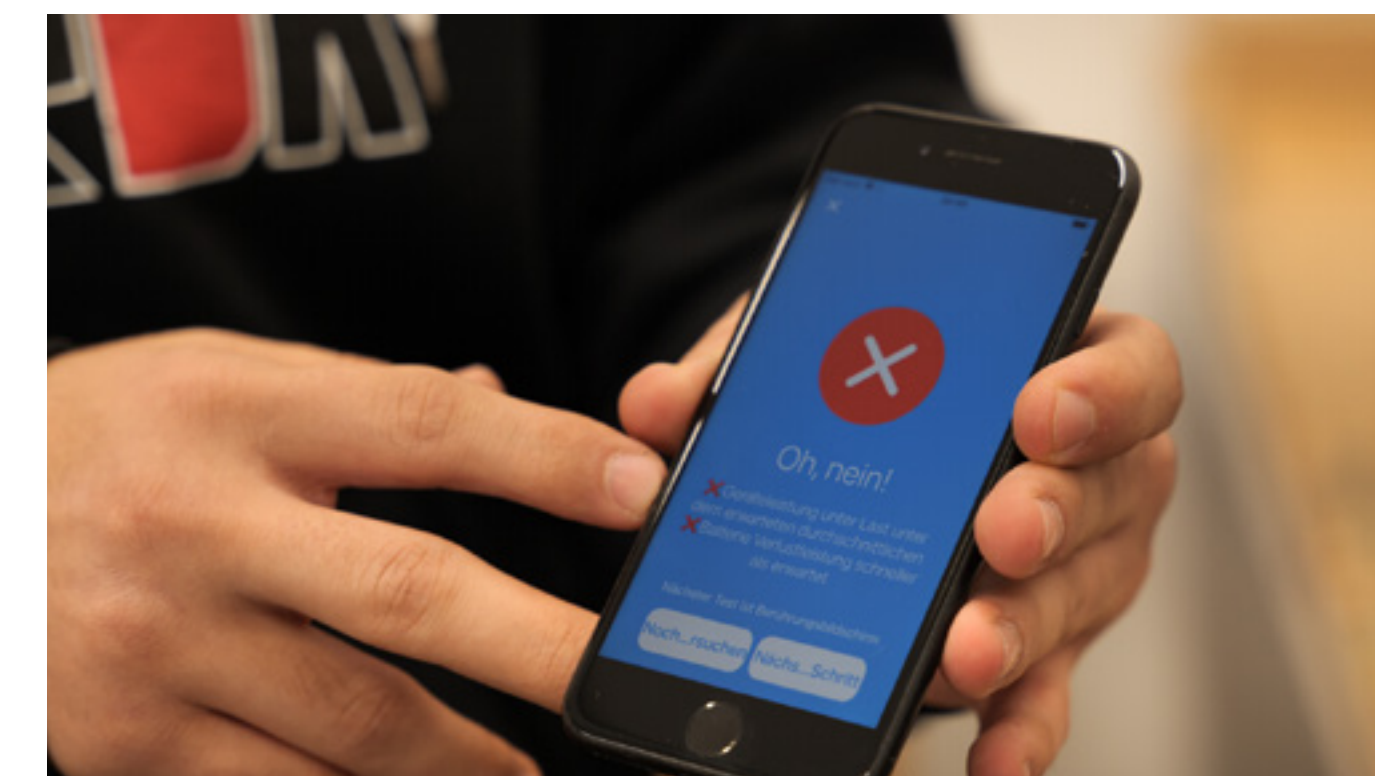
Before being sold through our marketplace, refurbished products undergo a thorough refurbishment process consisting of up to 40 steps (varying by category). Typically, this process is carried out directly by our refurbishers, which have extensive experience and expertise. Additionally, our partners are continuously monitored by our quality management team. Our partners acquire used electronic devices from various sources, including customers who sell their used devices through our trade-in service, businesses, telecommunications providers, and auctions. Subsequently, the devices undergo the refurbishment process, which can be summarised in five main pillars.

## The 5 main pillars of the refurbishment process for an electronic product:

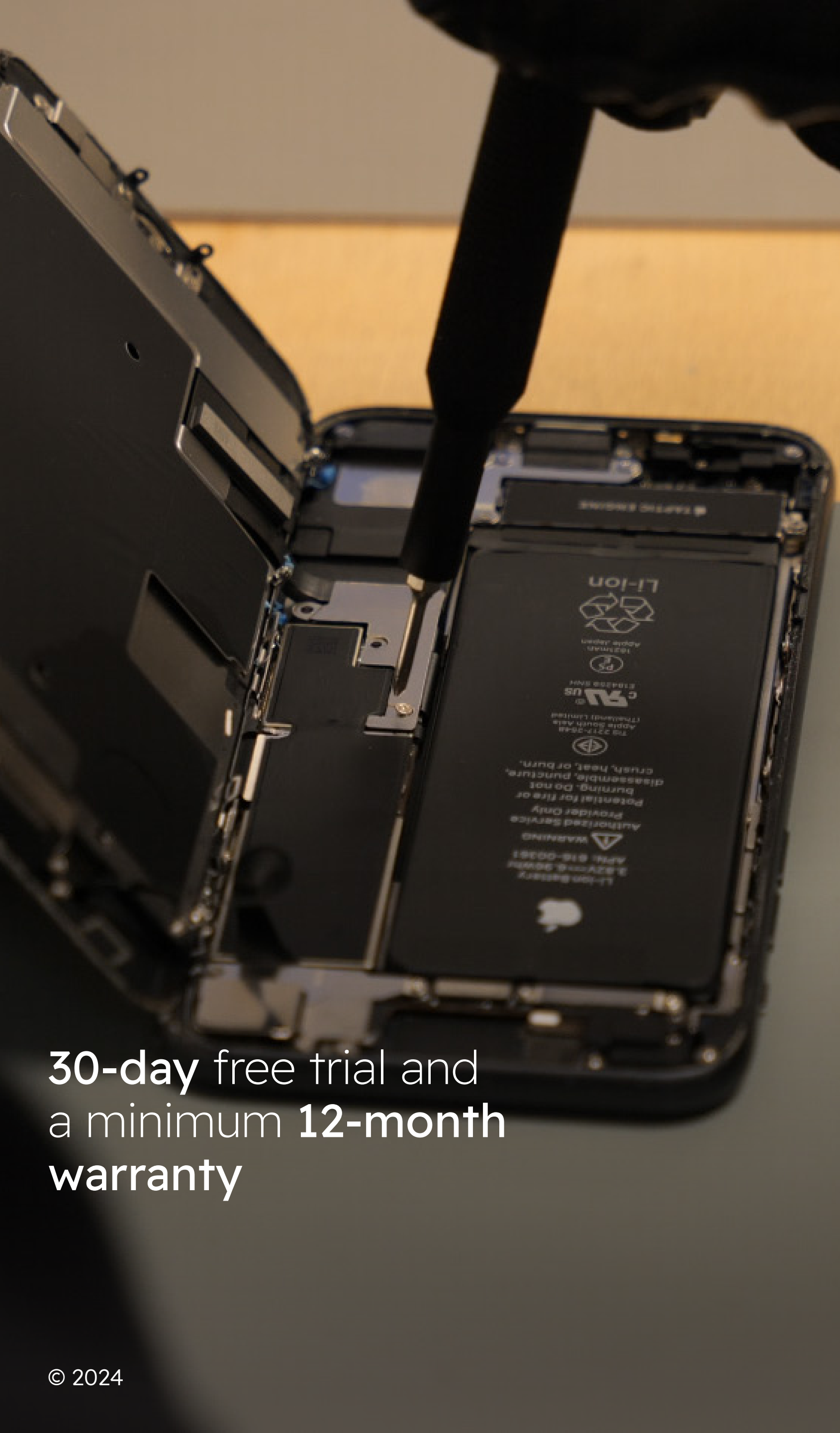
- **Data erasure:** Old data is erased, storage space is overwritten, and the device is reset to factory settings.
- **Device testing:** Technical experts test the device using approved and certified testing software to ensure 100% functionality.
- **Component replacement:** Components are replaced as needed. Repairs are carried out by experts; individual parts are replaced with equivalent ones.

- **Necessary refinement:** External signs of use (depending on the cosmetic condition) are removed through polishing and cleaning. If necessary, operating system upgrades are performed.
- **Device grading:** Technical experts or laser machines compare the appearance of the devices with our guidelines and standards regarding cosmetic conditions (product conditions "excellent," "very good," "good").

Finally, the device is sold through our marketplace and comes with a free 30-day trial period and minimum 12-month warranty.



A thorough  
review process



**30-day** free trial and  
a minimum **12-month**  
warranty

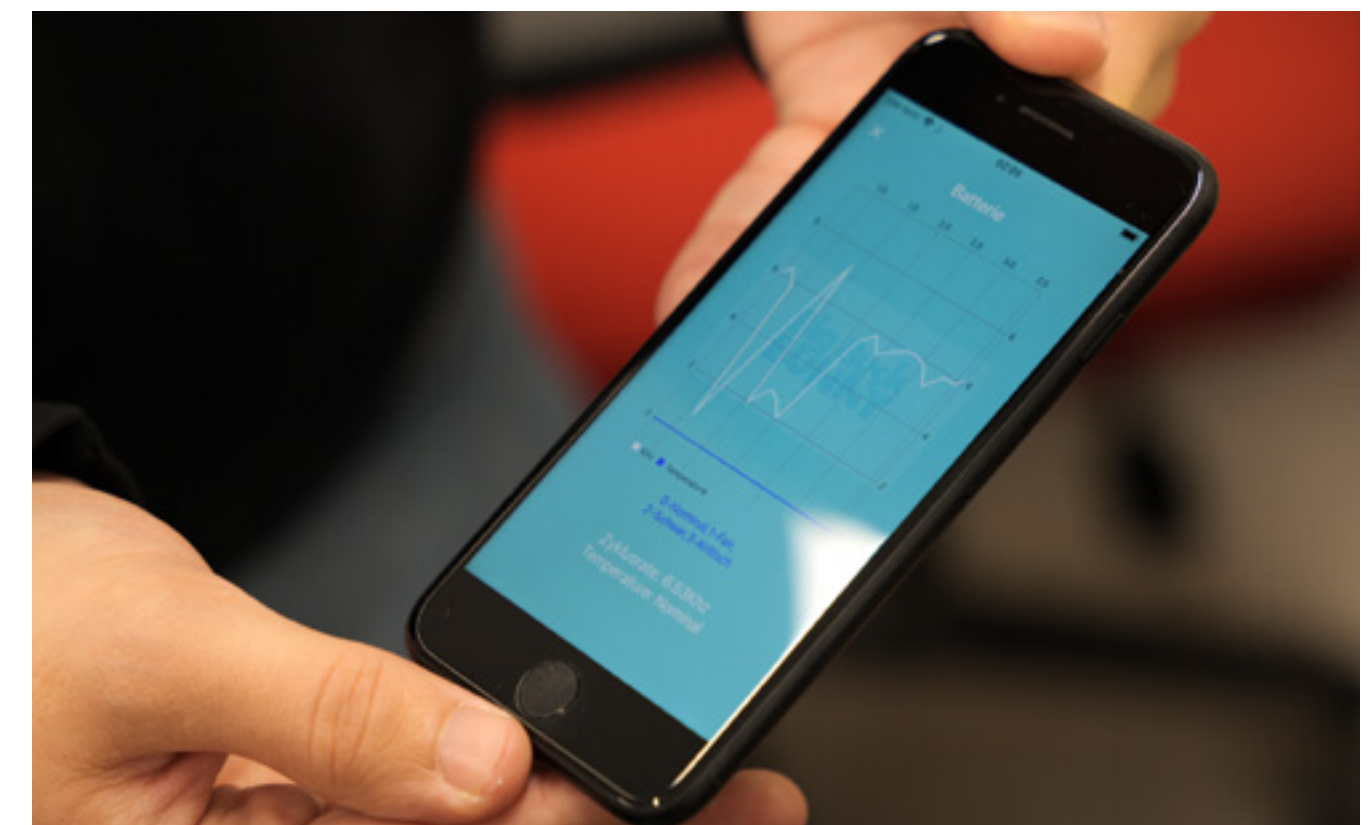
# Thorough quality management

Our "Supplier Performance" department ensures that every product meets our quality standards. This ensures that the expectations of our customers are met and the post-purchase process remains smooth. Each refurbished product includes a 30-day free trial and a minimum 12-month warranty to avoid potential risks for customers, especially regarding technical defects. Furthermore, we closely monitor and improve the performance of our refurbishers and suppliers. Our goal is to constantly improve the standard of our product quality in the industry.

Our refurbishers are responsible for product liability and are legally obligated to adhere to our quality charter and guidelines. These documents include aspects such as product quality, shipping, warranty obligations, customer service, and evaluation criteria for optical product conditions. We require a refurbishment report for each product, which tests and identifies the functionality of all components (battery, screen, audio, speakers, etc.) using state-of-the-art software. To participate in our Trade-In service, refurbishers must adhere to additional agreements, which, for example, regulate the evaluation criteria.

Through a multi-stage quality management approach, we ensure that only the best refurbishers sell on our platform. The central quality control measure is the "Supplier Performance Score", which provides valuable feedback and performance comparisons for our refurbishers. A performance report and details of the Supplier Performance Score are available to all refurbishers individually in their self-service center, helping them identify areas for improvement. The Supplier Performance Score covers various topics such as product

The central quality control measure is the "Supplier Performance Score"



## 2.6

## Thorough quality management

The overall score is crucial as it influences our BuyBox system, determining how much a refurbisher can sell on our platform.

quality, customer service, customer satisfaction, and shipping experience. Each of these areas is rated with points using different metrics. The overall score is crucial as it influences our BuyBox system, determining how much a refurbisher can sell on our platform. The higher the overall score, the more a refurbisher can sell on our platform. Our BuyBox system ensures that only high-quality offers are listed and motivates our best refurbishers to continuously improve their performance. Positive behavior and performance are rewarded with bonus points to increase the BuyBox position.

Another security measure is our automatic warning system, which is triggered when certain thresholds for product and service quality are exceeded (e.g. defects, non-compliance with optical conditions, delivery problems, response times, etc.). This allows our Supplier Performance Team to take immediate action. Problems with refurbishers can also be detected early if reported by our customer service. The Supplier Performance Team works closely with customer service and refurbishers, attempting to find solutions through continuous communication.

If there is no improvement, penalties and eventually exclusion from our platform may occur. Additionally, we conduct quality assurance measures such as ongoing monitoring, regular quality checks, and test purchases. The aim here is to identify potential weaknesses and ensure quality in refurbishment, product quality, packaging, customer service, and shipping/return procedures.

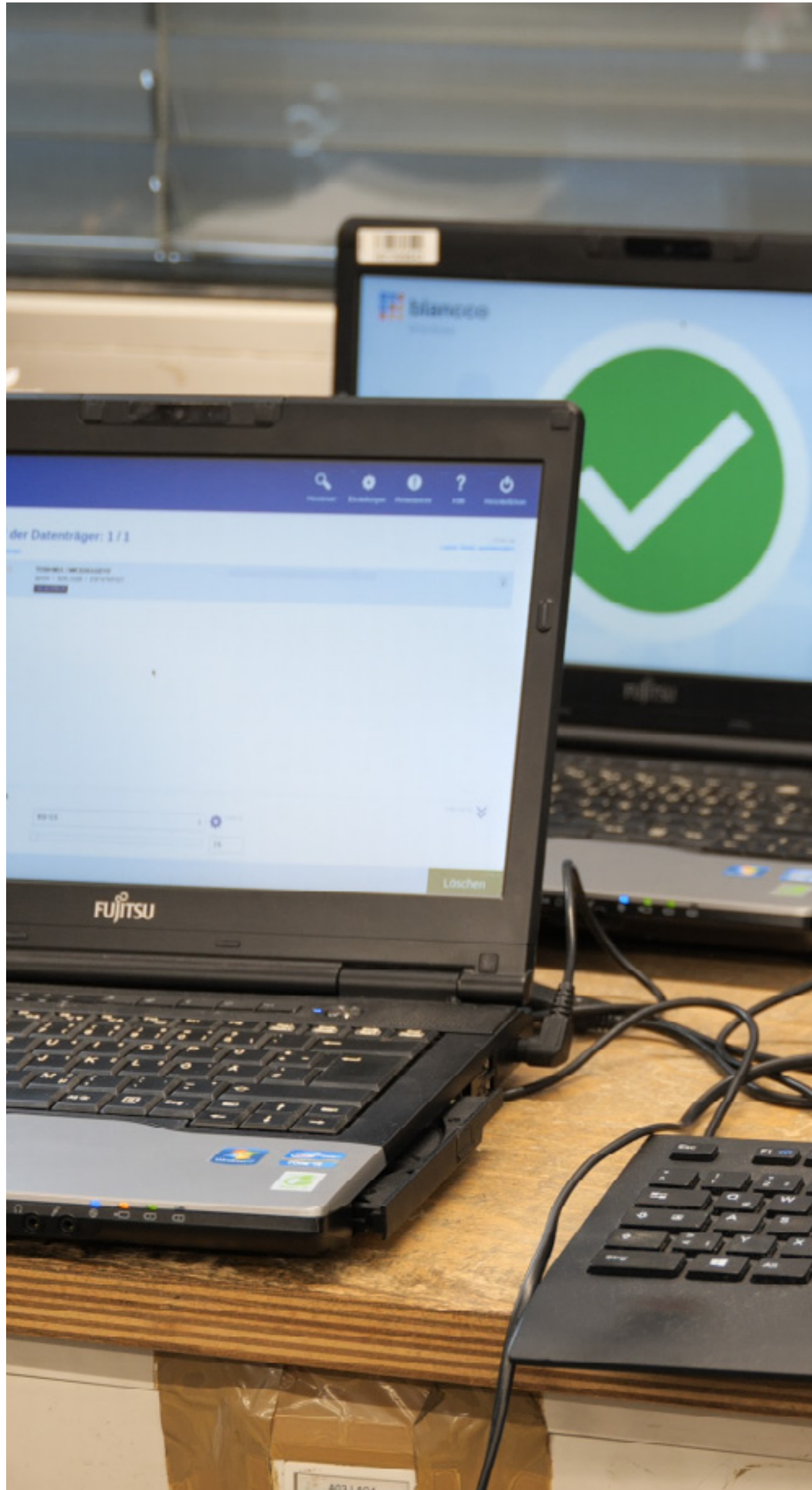
To protect refurbished and ensure customer satisfaction, our system immediately detects and marks suspicious activities and triggers alerts. In cases of unfair behavior or significant problems, such as delivery delays, lack of communication, or bankruptcy, we initiate a takeover process of the refurbisher account. To ensure support for warranty cases for customers, refurbished collaborates with external partners. Through these external partners, we ensure effective management and promptly address the concerns of our customers.

We believe in building strong partnerships with refurbishers to provide our customers with the best possible experience. The Supplier Performance Team supports refurbishers with resources to meet our high standards. These include a user-friendly self-service center, performance reports, dashboards, informative materials, webinars, and detailed manuals that establish the optimal conditions for renewed products. These resources help refurbishers effectively manage their processes and ensure consistent compliance with our high standards for quality and service.

Our quality management ensures quality assurance on our offer side by continuously creating and evaluating performance indicators, enabling communication and enforcement



of reporting requirements to ensure fair competition, protecting the service and product quality of our marketplace, maintaining high customer satisfaction, and ultimately spreading high-quality, circular products throughout Europe.





# Living sustainability at refurbished

## Anchoring sustainability

Sustainability is an integral part of all teams at refurbished, as our business model, vision (making consumption sustainable), and mission (building the leading platform for sustainable products and services) are all geared towards sustainability. In 2023, we expanded our efforts by integrating sustainability into the Strategy Team and establishing interdisciplinary groups. Additionally, we encourage all employees to provide feedback and raise their awareness of sustainability.

**Board & Investors:** Our investors appreciate our sustainable business model, which is based on the circular economy and resource conservation. They see it not only as a forward-thinking strategy, but also as an opportunity to make a positive impact on the environment and society through their investment. Our vision and mission go beyond mere investment focus, emphasising our commitment to taking responsibility. We regularly update all investors on our ESG metrics and the progress of our sustainability strategy. Through open and regular communication, we strengthen trust and collaboration, leveraging the experiences and networks of our investors. Evli Growth Partners, Creas Impact and Oltre Impact are just a few of our investors who have defined impact KPIs in their investment goals

and actively measure results. Our board and investors actively support us, bringing their expertise to specific sustainability issues and helping us achieve our goals more efficiently.

“refurbed’s commitment to a sustainable business model, combined with their ambitious vision and mission, is exactly what excites us at Evli Growth Partners and why we have invested in refurbished. The exceptional team has demonstrated an unparalleled commitment not only to short-term growth but also to building a legacy that benefits both the environment and society. This long-term perspective,

Unser Board und unsere Investoren unterstützen uns aktiv





## Living sustainability at refurbished

combined with the innovative approach to the circular economy, makes refurbished a compelling investment opportunity."

**Riku Asikainen, Founder and Managing Partner at Evli Growth Partners**

**Climate Impact Team:** In early 2023, we anchored a dedicated team in the strategy department, which places the issue even more centrally in our business model. This team leads our political advocacy and is responsible for developing and implementing the environmental strategy to minimise refurbished's negative environmental impacts. Other areas of responsibility include the preparation of sustainability reports and serving as an internal point of contact for all sustainability issues.

**Integration in all teams:** At refurbished, sustainability is firmly embedded in all teams. Many people apply to us because of their interest in sustainability. Feedback and suggestions on sustainability issues are welcome from all employees at any time. Since the summer of 2023, we have offered all employees the opportunity to participate in a Climate Fresk workshop. Climate Fresk is an interactive method designed to encourage teams to think playfully about climate change and develop innovative ideas for sustainable solutions. Last but not least, sustainability is also reflected in our principles, the "refurbished Principles" (see next chapter). Their aim is to focus all employees on refurbished's vision of making consumption sustainable.





# The principles guiding our work

This year, we've further developed our values and replaced them with more concrete principles, our so-called "refurbed Principles." These serve as guiding principles for our daily work, ensuring that we remain focused on our vision. Our principles are anchored in four areas: Entrepreneurship, Growth, Problem-Solving, and Community. In each of these areas, we have 2-3 principles that specifically describe how we interact, tackle challenges, and make decisions. These principles guide us through our next phase of growth, ensuring that we navigate changes and challenges meaningfully together. Additionally, our principles hold us mutually accountable and ensure that we continuously improve. They are an integral part of our company culture, guiding us in our pursuit of a positive impact on our environment and a rethinking of consumption.

**Our principles are anchored in four areas: Entrepreneurship, Growth, Problem-Solving, and Community.**



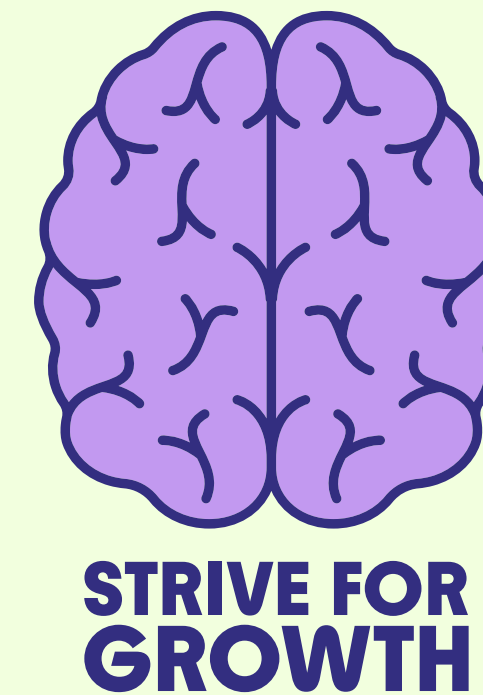


**The mission is the mission:**

We prioritise our actions based on our vision to make consumption sustainable and minimise our impact on the planet.



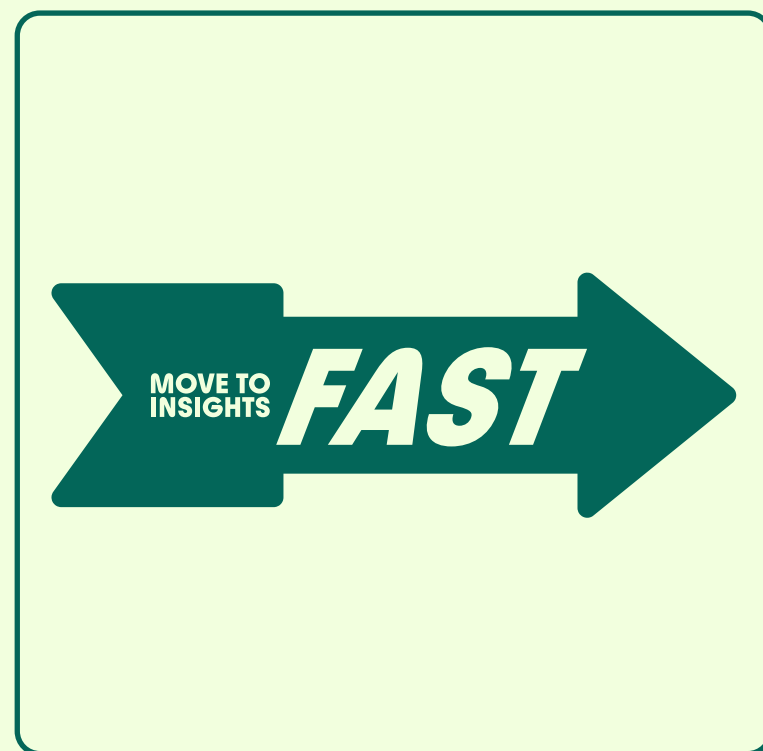
**Assume responsibility:** We value taking ownership, encourage critical, independent thinking, and strive to leave things in a better state than we found them.



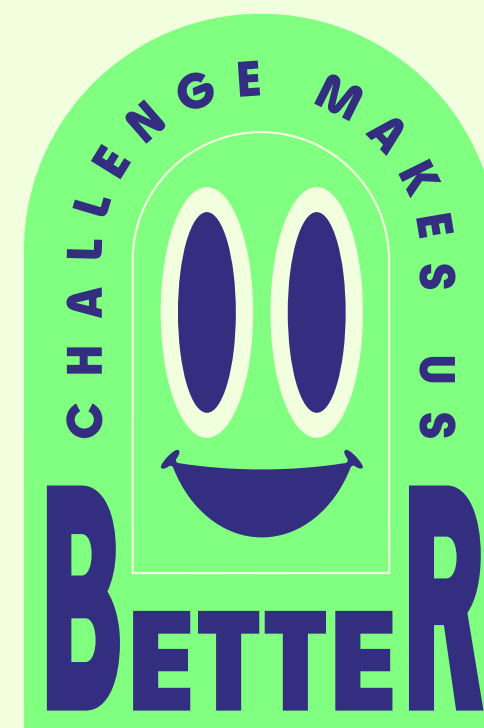
**Strive for growth:** We aim for personal and professional growth by constantly evolving, supporting each other, and providing feedback.



**Solve a problem for a customer:** We focus on solving problems for our end customers and partners, keeping them in mind from hypotheses to the development of new features.



**Move to insights fast:** We operate on hypotheses and combine data analysis and business thinking when making decisions, enabling us to implement things quickly and informedly.



**Challenge makes us better:** We challenge and support each other by communicating directly, addressing conflicts openly and respectfully, and aligning behind agreed-upon directions.



**Mission first, ego second:** We minimise corporate politics and always focus on becoming better as a team and getting closer to achieving our vision.



**Remote requires responsibility:** In our "remote-first" setup, we focus on working effectively asynchronously, maintaining our team cohesion, and efficiently documenting decisions and processes.



# Our office & policies



For business travel, we prioritise train connections for destinations reachable within 6 hours.

2.7

In line with our vision, it's important for us to make sustainable decisions both in our personal and professional environments.

Our Vienna office operates on 100% renewable energy, and our employees are provided with refurbished IT equipment. For business travel, we prioritise train connections for destinations reachable within 6 hours. If air travel is unavoidable, we offset the resulting emissions through our travel platform.

Sustainability is also a priority when it comes to office catering. During company events, we exclusively offer vegetarian and vegan options, and we serve organic coffee, oat milk, and organic fruit daily. Since 2022, we've been proud members of the Climate Alliance Austria.

Living sustainability at refurbished



# SDGs that we are contributing to

The 17 Sustainable Development Goals (SDGs) are the political objectives of the United Nations aimed at ensuring sustainable development globally, economically, socially, and environmentally. Here are the SDGs that our business model impacts:

2.7

## Living sustainability at refurbished

### 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



As part of the growing refurbishment industry, we advocate for sustainable value creation through political engagement with various organisations such as Right to Repair, EUREFAS, the German Council for Sustainable Development, Sweden's Hållbar E-handel working group Recommerce, and the Consumer Insight Action Panel.

### 11 SUSTAINABLE CITIES AND COMMUNITIES



Refurbished electronics are not only more sustainable, but also more affordable than purchasing new ones. They can help bridge the digital divide by empowering individual purchasing power and making sustainable technology more accessible to people with various socio-economic backgrounds.

### 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



The most sustainable form of consumption and production is no consumption. However, consumer electronics are an essential part of our daily lives, which is why it's important to move to more sustainable alternatives like refurbished electronics. Through our trade-in service for customers, we strengthen our circular economy model and contribute to closing the material loop.

### 13 CLIMATE ACTION



Refurbished electronic products such as smartphones, tablets, and laptops represent a more sustainable option compared to new devices, as only defective parts are replaced to extend the product lifecycle. This saves between 80-83% CO<sub>2</sub> emissions, 77-96% electronic waste and 85-91% water compared to the purchase of new devices<sup>17</sup>.

<sup>17</sup> Savings compared to new purchases since foundation based on verified calculation model

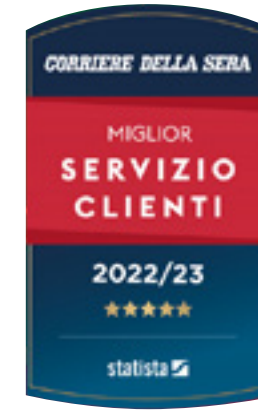
# Our awards 2023 & 2024



German Customer Award 2023



Promoting the best: Mental Health Award – legal department 2023



Miglior Servizio Clienti at Corriere della Sera 2022/23



EY Scale-up of the year 2023



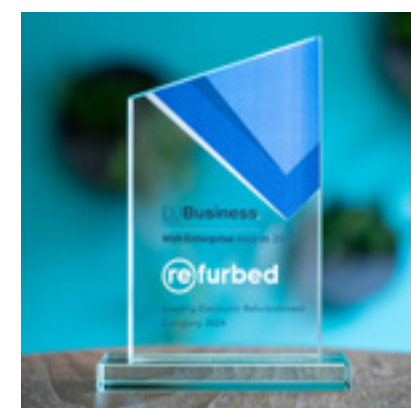
trend Start-up Ranking 2024



TechTourGrowth50 2023



ESG Innovation Award at the Irish Business & Finance ESG Awards 2023



Leading Electronic Refurbishment Company 2024 at the Irish Enterprise Awards 2024



# From expensive to more sustainable: refurbished consumer electronics for everyone

Contrary to the myth that environmentally friendly products are always the more expensive alternative to conventional products, refurbished products are up to 40% cheaper and more sustainable than new products. Our goal is to make sustainability accessible to all by providing devices that positively impact individual purchasing power. In 2023, customers were able to save an average of 48% when shopping at refurbished. Particularly popular models like the iPhone SE 2022 or the iPhone XR were on average 69% and 60% cheaper compared to brand new devices<sup>18</sup>.

## Consumer electronics as essential goods:

Consumer electronics are not only status symbols, but also essential goods in our daily lives. At refurbished, we see this as an opportunity not only to strengthen individual purchasing

power, but also to build sustainable communities and consumer groups (indirectly) as a positive side effect of price incentives.



<sup>18</sup> The results are based on comparison data from Austria, Italy, Ireland, the Netherlands, Sweden and Denmark. The comparison prices of the suggested retail price (SRP) were derived from current data as of February 2024. Disclaimer: The suggested retail prices (SRP) are manually updated, which may result in occasional outdated data.



# Social sustainability at refurbished

## Staff: Turnover and gender ratio

As of December 31, 2023, refurbished has a total workforce of 284 employees, equivalent to 270 full-time equivalents (FTE). In 2023, we recorded 64 new hires and 57 departures, resulting in a turnover rate of 19.3%. This rate is typical for startups/scale-ups in the online retail sector.

The gender distribution in our workforce is nearly balanced, with a female representation of 49%. In leadership positions, the female representation stands at a notable 43%. With employees from 30 countries and 45 nationalities, we emphasise our international diversity. This diversity not only reflects the current situation, but also serves as the basis for future personnel strategies and the promotion of an inclusive corporate culture.

## KPIs / 31.12.2023 2023

### Gender balance leadership

43%

women

### Countries

30

### Headcount total

284

### Turnover rate

19.3%

### Average age

32.5  
Years Old

### New hires

64

### FTE total

270

### Departures

57

### Nationalities

45

### Gender balance

49%

women



Our **"Remote First"** culture stands as a testament to our dedication to creating a flexible and **dynamic work culture**

# Diversity and inclusion

Diversity and inclusion are fundamental principles at refurbished. Our goal is to create a work environment where every individual is treated with dignity and respect. We do not tolerate any form of discrimination or harassment. Our internal values, including equality and inclusion, enable all employees to freely express their opinions and ideas. With clear policies against harassment and discrimination and through regular feedback, we identify blind spots and promote a positive work atmosphere.

refurbished fosters community through various clubs such as board game, climbing, and yoga clubs. Here, employees from different teams have the opportunity to meet outside of work for shared interests. refurbished financially supports these clubs. Additionally, we have launched the "Community & Sustainability" benefit, which organises quarterly sustainability events such as clothing repair workshops, clothing exchange events, and trips to our refurbishers.

## DEI-Club

The mission of our DEI Club is to support all employees by creating an inclusive workplace. We conduct information campaigns, brainstorming sessions, and workshops to ensure that all employees feel safe, represented,

and empowered. Our commitment to diversity not only strengthens us internally, but also enhances our external employer branding.

## Gender Pay-Gap

The gender-specific salary gap across the company averages 24.4% with a median of 24.6%. One significant reason for this is that predominantly programmers occupy roles in the upper salary quartile, among whom men are heavily overrepresented. When looking at the distribution across salary quartiles, the gender-specific salary gap disappears. Thus, women earn on

refurbished fosters community through various clubs such as board game, climbing, and yoga clubs.



NATIONALITIES	COUNT	IN %
Austrian	85	29.93%
Italian	31	10.92%
German	30	10.56%
Polish	13	4.58%
Hungarian	12	4.23%
Slovakian	10	3.52%
Swedish	10	3.52%
Spanish	10	3.52%
Romanian	7	2.46%
Dutch	6	2.11%
French	5	1.76%
Danish	4	1.41%
Turkish	4	1.41%
Ukrainian	4	1.41%
Irish	4	1.41%
Swiss	3	1.06%
Bulgarian	3	1.06%
Iranian	3	1.06%
Greek	3	1.06%
Kosovan	3	1.06%
Brasilian	3	1.06%
Russian	3	1.06%
Indian	3	1.06%
Lithuanian	3	1.06%
Bosnian	2	0.70%
Slovenian	2	0.70%
British	2	0.70%
South African	1	0.35%
Croatian	1	0.35%
Estonian	1	0.35%
Portugese	1	0.35%
Syrian	1	0.35%
Columbian	1	0.35%
Belarusian	1	0.35%
Latvian	1	0.35%
Armenian	1	0.35%
Serbian	1	0.35%
Belgian	1	0.35%
Cameroonian	1	0.35%
Chinese	1	0.35%
American	1	0.35%
Albanian	1	0.35%
Kazakhstani	1	0.35%

SOURCE: refurbished 2024

## 2.8

average more than men in the lower and upper quartiles. The lower-middle quartile is balanced, while men in the upper-middle quartile earn an average of 2% more.

### Recruitment policy

At refurbished, we are committed to promoting a work environment that not only attracts top talents, but also enables our team members to lead fulfilling and balanced lives. Our "Remote First" culture stands as a testament to our dedication to creating a flexible and dynamic work culture that is as diverse as our team. We acknowledge that talent knows no geographical boundaries, and our policies are designed to leverage the best skills regardless of location. Our diversity is our greatest asset as it allows people to broaden their horizons. Through different backgrounds, experiences, and perspectives, we can develop innovative solutions and create a creative work environment. Our recruiting strategy "Hire for extra perspective" helps ensure that we integrate a wide range of thoughts and ideas into our teams and thus fully leverage the potential of our diversity.

refurbished actively promotes the hiring of women and aims to advertise roles for women, especially in male-dominated professions. Thus, we seek to increase our proportion of female employees. Additionally, all applicants have the opportunity to rate refurbished on Kununu regarding the hiring process, enabling us to continuously improve. Our applicant rating stands at 4.5 out of 5.

### Mobility: We are a remote-first company

Since 2022, refurbished has been a "Remote-First" company. This means that employees can work

## Social sustainability

from (almost) anywhere in Europe. This policy enables every team member, regardless of location, to be seamlessly integrated into the refurbished community and contribute effectively to refurbished's long-term success. The "Remote-First" orientation includes options for workspace and relocation and involves three in-person meetings of all around 300 team members per year at the Vienna office. During these "office weeks," we use the time together to foster relationships, learn, and work on tasks and projects where being in the same room is most effective.

All our employees - no matter where they work from - are treated equally to employees in Austria and Germany. This means that all our employees have health insurance. Furthermore, the salary is based on a transparent and fair system that adjusts wages to the respective wage levels and cost of living in the countries where our employees work.



refurbished actively promotes the hiring of women and aims to advertise roles for women, especially in male-dominated professions.

# Mental health and well-being

refurbed offers its employees a variety of opportunities to improve their health.

**Physical health:** refurbed supports the physical health of its employees by providing height-adjustable desks and ergonomic furniture at every workstation in our Vienna office. Additionally, the modern ventilation system in our office provides fresh air through hourly air exchange. We also provide a free organic fruit basket in the office every week and a free breakfast every Wednesday. Moreover, all our employees can join a refurbed club with a focus on sports, such as the climbing or yoga club.

**Evaluation of workplace psychological stress:** Since 2021, refurbed has conducted an annual evaluation of workplace psychological stress. This evaluation is done internally using the Copenhagen Psychosocial Questionnaire III (COPSOQIII), a recognised instrument for research and practice that serves to assess psychosocial conditions and promote health in the workplace. The COPSOQIII is used internationally in various countries and industries, enabling comprehensive comparison and evaluation of our own progress in the area of psychological risk prevention.

The response rate of the anonymously conducted evaluation in 2023 was 60% (170 completed questionnaires). The following results were achieved:

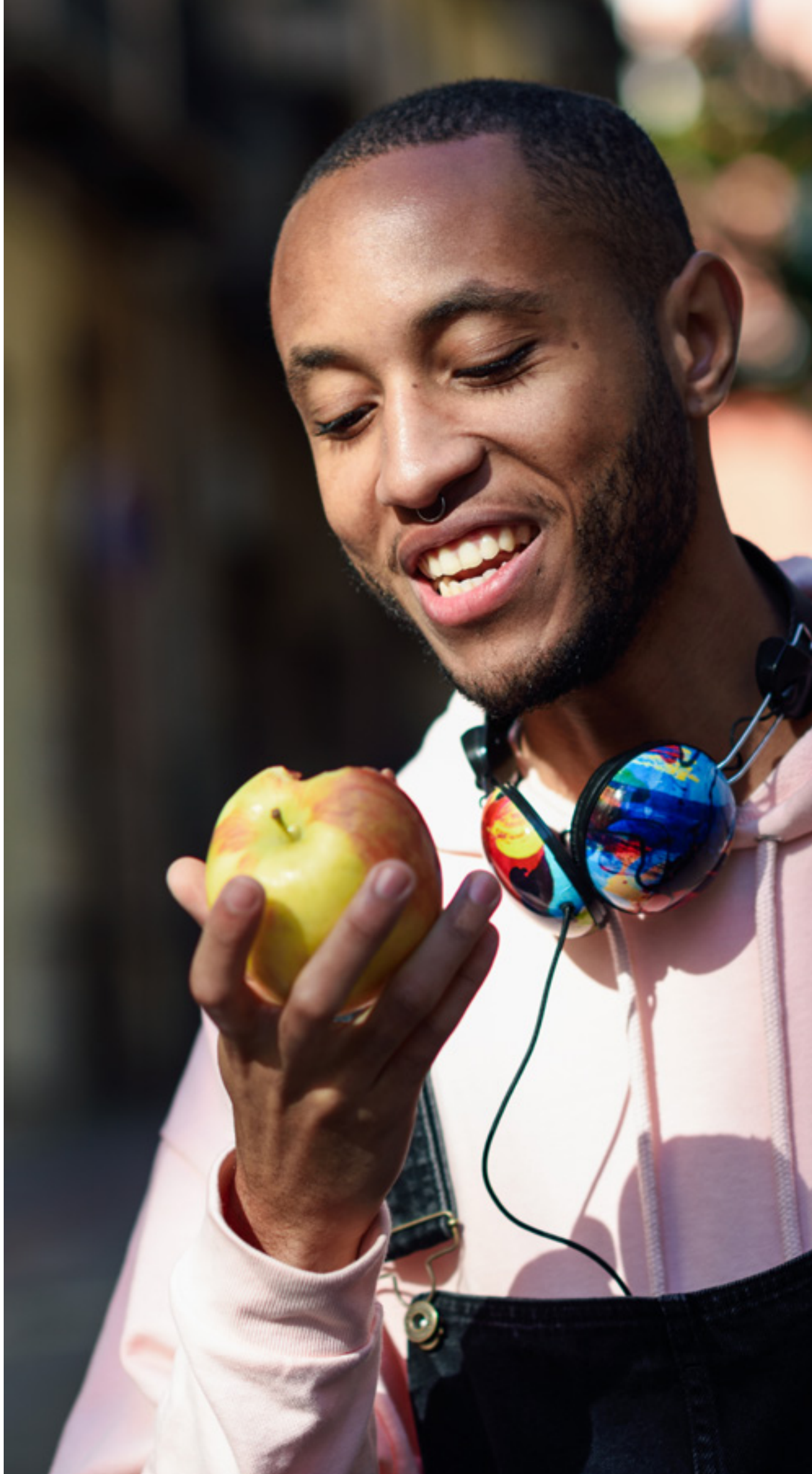
- **Our strengths:** Generally, almost all sub-dimensions show good to very good values that either lie within or exceed the benchmarks.
- **Our areas for improvement** are in the four sub-dimensions of Work Engagement, General Health Condition, Cognitive Demands, and Variety.

Since 2021, refurbed has conducted an annual evaluation of workplace psychological stress.



refurbed supports the **physical health** of its employees





The monthly conducted Mood Barometer is an important instrument for measuring employee satisfaction in the workplace.

The results were discussed with the founding team, and the following measures were initiated:

- Individual analysis per organisational unit
- Addressing the areas for improvement with the leadership team

The monthly conducted Mood Barometer is an important instrument for measuring employee satisfaction in the workplace. By regularly capturing the mood and general opinion among employees, the organisation can identify and address problem areas in a timely manner. This proactive approach allows for continuous improvement of the work environment and employee satisfaction.

**Mental health:** To promote the positive mental health of our employees, we have several psychologists whom employees can confidentially contact. To provide employee feedback, it is possible at any time to give anonymous feedback via our ticketing system. Additionally, refurbished has established a buddy system for new employees to welcome and support them. With Likeminded, our offering for mental health, refurbished empowers employees to anonymously strengthen their mental well-being and/or overcome current personal or professional challenges with direct and free access to professional psychologists and coaches who can support them on this journey.

To provide employee feedback, it is possible at any time to give anonymous feedback via our ticketing system.



# Employee development and engagement



The 360-degree feedback offers our employees an excellent opportunity to assess their current status [...]

Employee development and engagement are at the forefront of our efforts. To emphasise the significance of tasks and development opportunities, we offer various career paths, from traineeships to leadership positions. Flexibility is crucial to us – approximately 10-20% of our customer service staff transition to other departments over time. Additionally, we provide internal training sessions for personal development and leadership for team leaders and department heads.

The annual 360-degree feedback is a well-known method where employees receive feedback from various colleagues and supervisors, and also conduct self-assessments. Strengths, potentials, and personal development are discussed in line with our company principles. The 360-degree feedback offers our employees an excellent opportunity to assess their current status and define their future goals. The ultimate aim of the 360-degree feedback is to encourage individuals to unleash their full potential.



# Governance

**Within refurbished, monthly meetings are held in which all employees can participate.**

We place great emphasis on transparent and responsible corporate governance.

## **Executive management and advisory board:**

The executive management of refurbished is supported by a permanent advisory board. This board, led by an independent chairperson and consisting of representatives from our key shareholders as well as our founder, Peter Windischhofer, meets at least quarterly to discuss refurbished's entrepreneurial plans, business conduct, and sustainability measures.

## **Performance reporting and Sales Department:**

To ensure a high-quality standard for refurbished devices, our Supplier Performance and Sales departments regularly send individual

performance reports to all refurbishers. These reports are based on sales figures, gross merchandise volume (GMV), and quality management.

## **Monthly townhall meetings:**

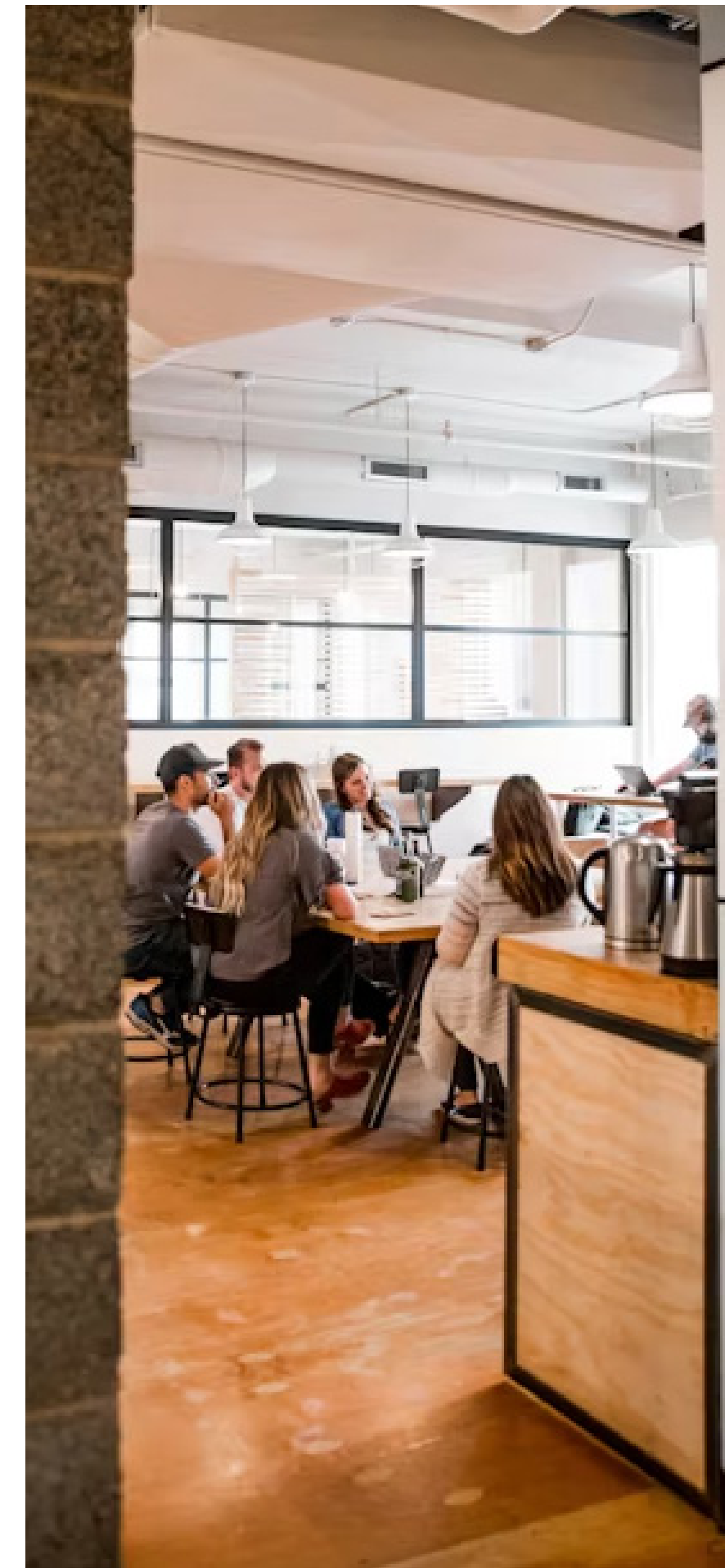
Within refurbished, monthly meetings are held in which all employees can participate. In these meetings, the latest results as well as current and future priorities are discussed. This not only serves to inform all employees simultaneously, but also gives everyone the opportunity to voice their opinions.

## **Data security:**

We take data protection seriously. Our data privacy and security policies are strictly adhered to, ensuring that sensitive information is always in safe hands. refurbished selects business partners based on high-quality standards and obligates them to adhere strictly to data protection standards. Where possible, refurbished minimises international data transfers to third countries.

## **Whistleblowing policy:**

As part of our commitment to high corporate governance, integrity, and accountability, we have a whistleblowing policy. This policy



enables all employees to raise concerns through appropriate internal reporting channels. The policy follows the standards of the EU Whistleblower Directive (Directive (EU) 2019/1937) and the corresponding national legislations.

Our governance structure and practices reflect our commitment to transparency, responsibility, and integrity. We are constantly striving to meet the highest standards in all aspects of our business to earn and maintain the trust of our customers, employees, and stakeholders.

**Where possible, refurbished minimises international data transfers to third countries.**

# 03 Our environmental strategy

**We want to enable everyone to understand the impact of their individual consumption decisions**



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**3.1** Our materiality analysis

**3.2** Pillar 1: Measuring our environmental impacts

**3.3** Pillar 2: Reduction of negative environmental impact

**3.4** Pillar 3: Financing of environmental protection projects

**3.5** Reflection & looking into the future



# Our environmental strategy

Collaboration with our refurbishers has emerged as a central theme in our environmental strategy through our materiality analysis.

We are introducing a

## verified calculation model

to measure the ecological footprint of smartphones, tablets and laptops.

We aim to further reduce the

## ecological footprint

of products through collaboration with refurbishers.

We are expanding our

## CO<sub>2</sub> assessment

to include refurbished smartphones, tablets, and laptops.

We are now investing in a portfolio of various highly effective

# environmental projects:

**Electronic waste Recycling**

**Innovative CO<sub>2</sub>-Removal**

**Landscape restoration**

# Our environmental strategy at a glance



Our vision is to minimise our negative environmental impact as much as possible



Pillar 1: Measuring our environmental impact, including pioneering work on environmental impact data using an externally verified calculation model



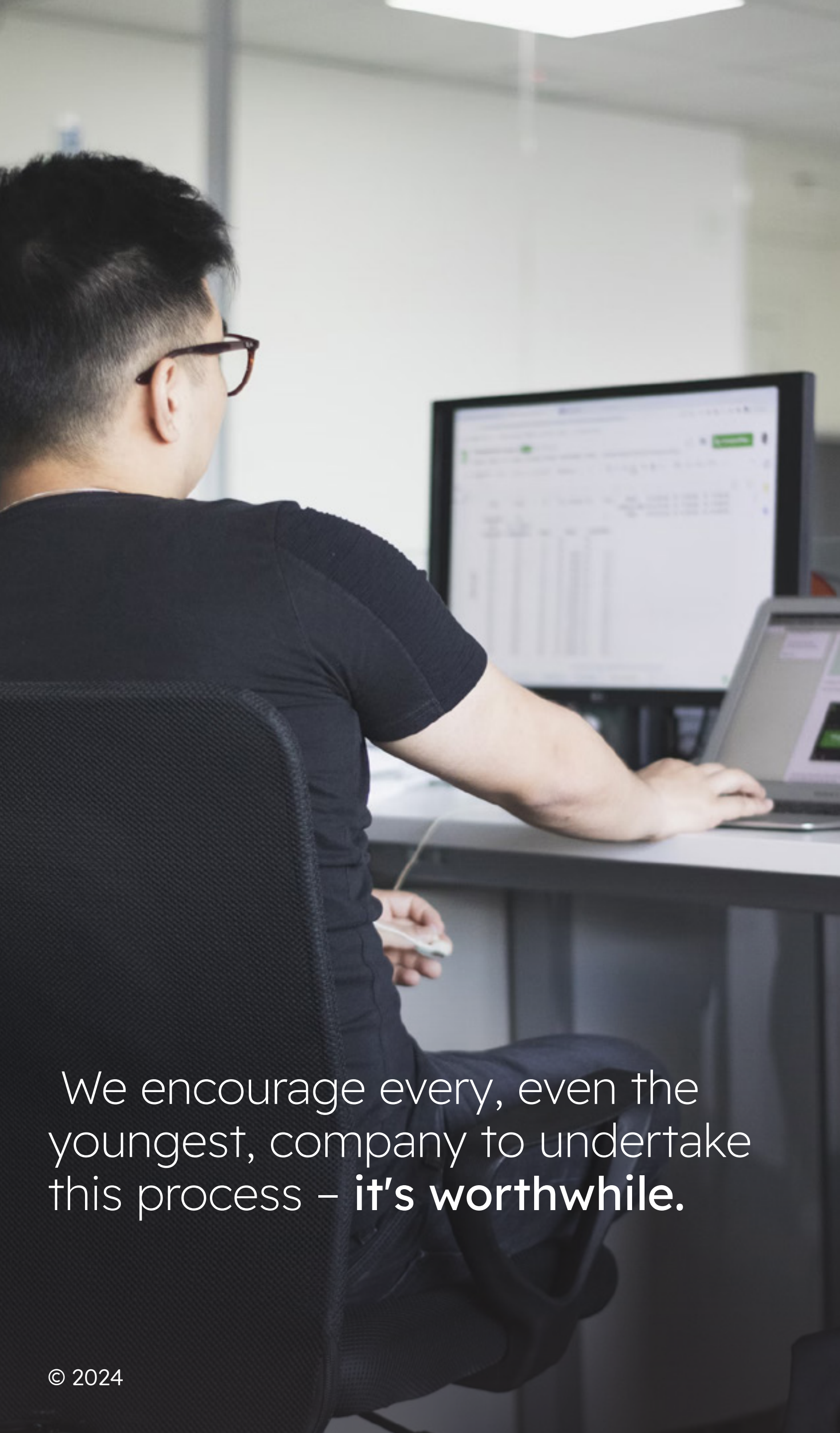
Pillar 2: Reduction of negative environmental impacts



Pillar 3: Financing environmental protection projects



Public affairs: Lobbying to establish the circular economy in Europe



We encourage every, even the youngest, company to undertake this process – **it's worthwhile.**

# Our materiality analysis

In conducting a materiality analysis, the aim is to determine which environmental, social, and corporate governance issues are most important for a company and its stakeholders.

In the summer of 2023, we conducted our first materiality analysis. The purpose of this analysis was to understand the perspectives of our stakeholders and identify the sustainability areas refurbished should focus on. Our stakeholders are diverse, including customers, employees, the environment (represented by an NGO), science, and investors. The insights gained formed the basis of our environmental strategy. We hope that our experiences can also assist other companies in their initial materiality analysis. We encourage every, even the youngest, company to undertake this process – it's worthwhile.

## Process overview

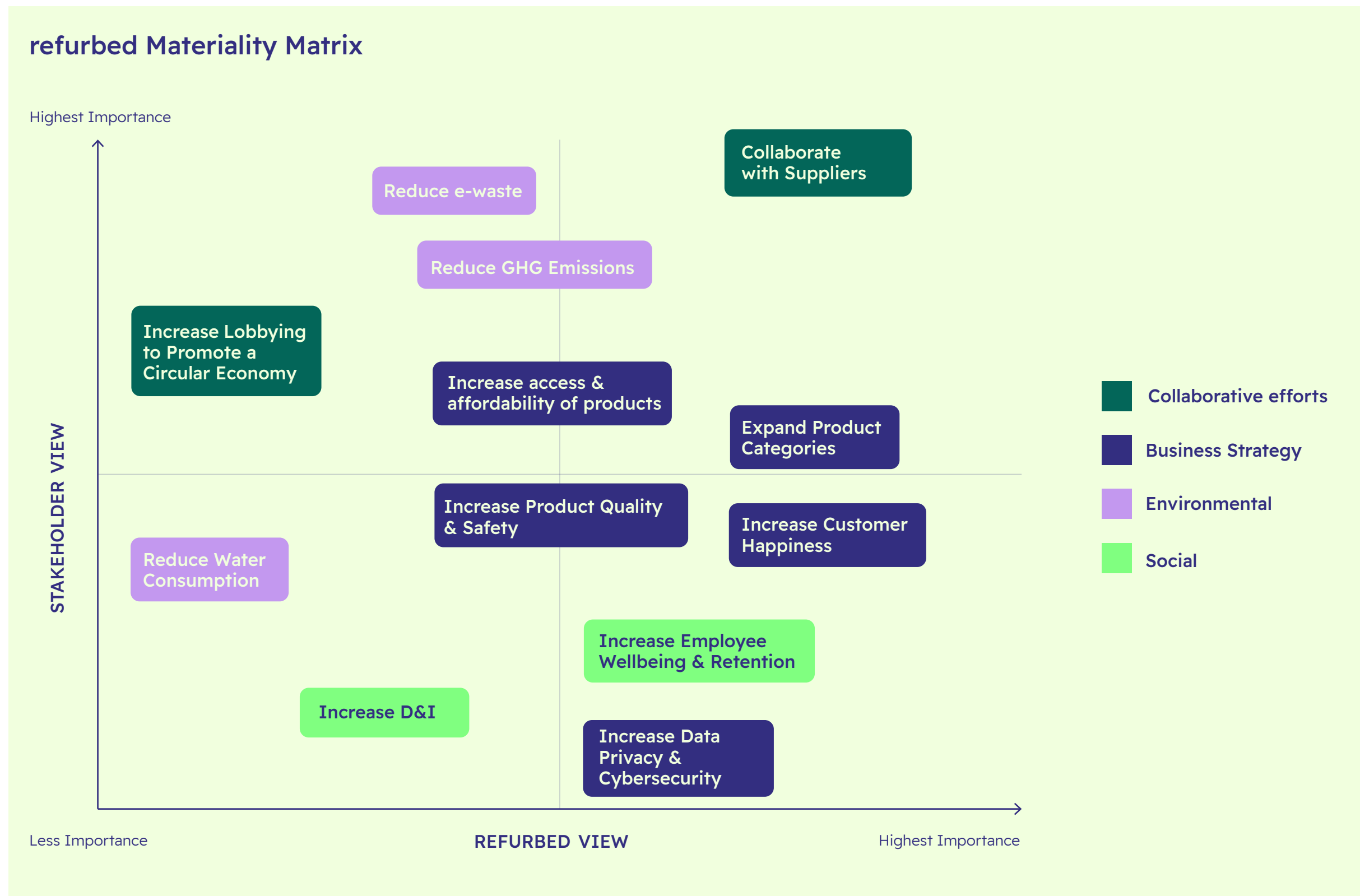
Below we would like to provide an insight into the process, which is divided into the following 5 steps:

**1. Identification of key stakeholders:** We selected our most important stakeholders based on several criteria, including our dependence on them, our responsibility towards them, existing tensions, their

influence on us, and the presence of different perspectives. Stakeholders with the highest scores were chosen. Identified stakeholders include customers, employees, refurbishers, investors, science (exemplified by Fraunhofer Austria), the environment (exemplified by an NGO), and industry and business associations (exemplified by Bundesverband deutsche Wirtschaft and RespACT).

**2. Identification of key topics:** Using the Sustainability Accounting Standards Board (SASB) Materiality Finder, we identified 12 essential topics relevant to refurbished and our industry. These are:





This matrix reflects the identified topics, prioritising them according to stakeholders and refurbed’s perspective for future sustainability efforts, serving as a guide for setting priorities in this regard.

1. Collaboration with refurbishers to strengthen sustainability efforts within the supply chain
2. Reduction of electronic waste
3. Reduction of greenhouse gas emissions
4. Lobbying efforts to promote the circular economy
5. Expansion of the range of refurbished categories
6. Improvement of access and affordability of products
7. Reduction of water consumption
8. Enhancement of product quality and safety
9. Promotion of diversity and integration
10. Enhancement of employee well-being and retention
11. Improvement of customer satisfaction
12. Enhancement of data privacy and cybersecurity

**5. Compilation of the Materiality Matrix:**  
The results are presented in the Materiality Matrix. This matrix reflects the identified topics, prioritising them according to stakeholders and refurbed’s perspective for future sustainability efforts, serving as a guide for setting priorities in this regard.

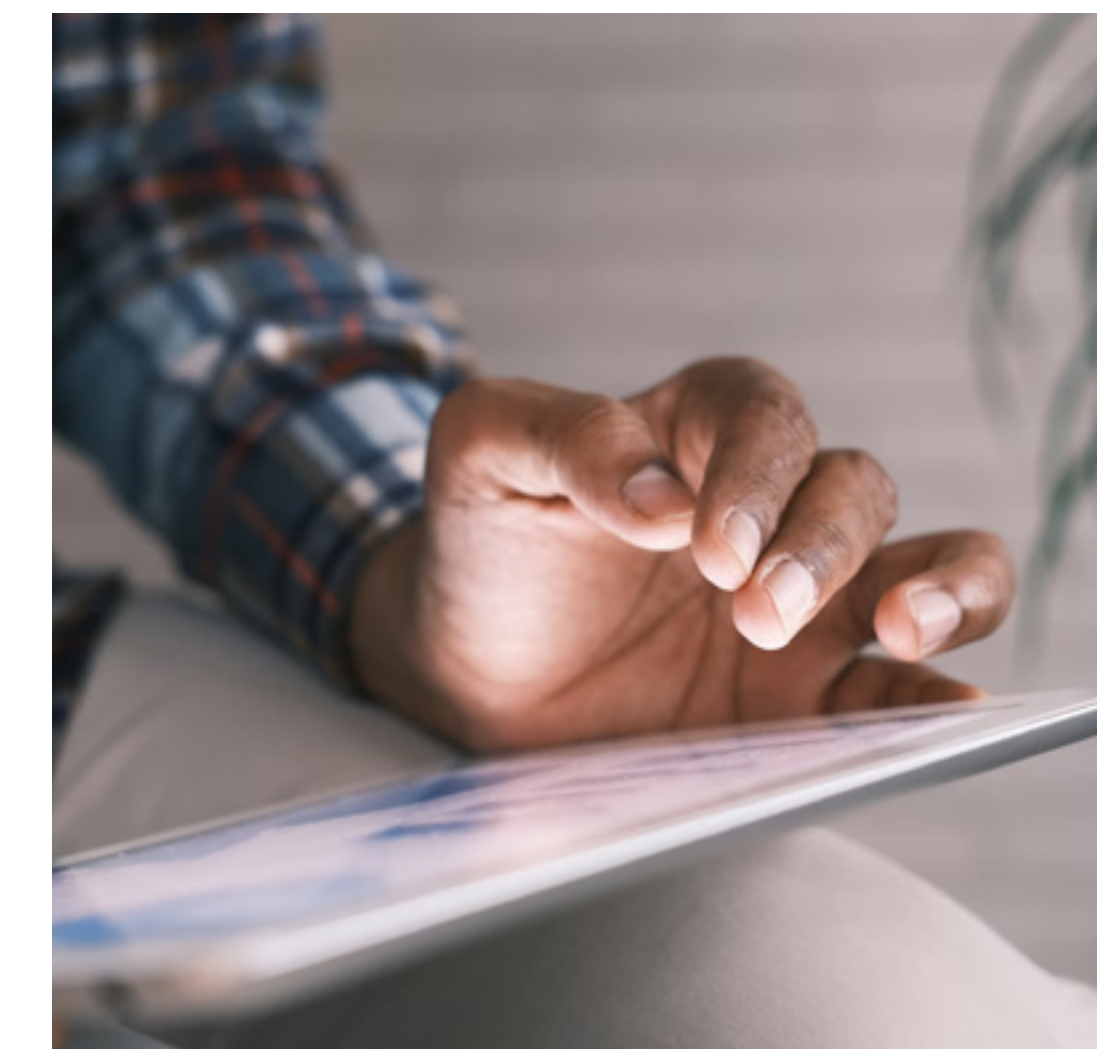
As evident in the matrix, the highest priority topic for our stakeholders and the second most important topic for refurbed is collaboration with refurbishers to strengthen sustainability dimensions within the supply chain. As a platform, our sustainability efforts heavily rely on our refurbishers and the products sold through us. Therefore, this is a logical starting point to maximise the impact of our efforts. Through this collaboration, we see the opportunity to address many of the other topics covered in the materiality matrix, such as reducing CO<sub>2</sub> emissions, electronic waste, and water

**3. Surveying selected stakeholders:**

We conducted surveys and interviews with selected stakeholders, including refurbishers and investors, to understand their views, priorities, and associated environmental impacts, risks, and opportunities.

**4. Weighting of topics:**

To prioritise identified topics, stakeholder responses were weighted based on the importance of each stakeholder and the number of respondents within each stakeholder group, providing a clear overview of the key concerns and priorities of various interest groups.





### 3.1

consumption, as well as enhancing customer satisfaction and expanding product categories. Other identified topics are being addressed internally by various departments and can be found in the respective chapters of the report. Information on our diversity and inclusion initiatives, as well as employee engagement and well-being, can be found in section 2.8 Social Sustainability. Details of our lobbying efforts are outlined in chapter 2.3.

The following chapters are informed by the results of the materiality analysis and demonstrate the strategies and measures we have established to address the topics identified as essential by our stakeholders.

**Our stakeholders are diverse, including customers, employees, the environment (represented by an NGO), science, and investors.**

### Our materiality analysis



# Pillar 1: Measuring our environmental impacts

Capturing our environmental impacts along our entire value chain forms the foundation of our environmental strategy. The underlying data not only provides insights and understanding into the distribution of CO<sub>2</sub> emissions, but also serves as a prerequisite for defining strategies to reduce emissions.

At this point, we would like to mention that, according to the Greenhouse Gas Protocol, as a platform, we are not obligated to integrate the products sold through us into our CO<sub>2</sub> footprint. However, to gain a better understanding of our entire value chain, we have chosen to do so nonetheless, with the intention of collaborating with our refurbishers in later stages to work on reductions. Our expanded CO<sub>2</sub> footprint is depicted in the graph below.

## Our goals regarding Pillar 1 (Measurement):

- **Expansion of our corporate carbon footprint measurement**
  - By mid-2024: Expansion of our Corporate Carbon Footprint measurement through CO<sub>2</sub> data from the verified calculation model for renewed smartphones, tablets, and laptops.

- By 2026: Expansion of the Corporate Carbon Footprint measurement to include at least 1 additional product category (subject to the availability of CO<sub>2</sub> footprint data for new products).

- **Increase in the measured environmental impacts of products sold through our platform in terms of CO<sub>2</sub>e, water and electronic waste.** (Limitations: products for which no comparative environmental data are publicly available are excluded.)

- To date (2023): Measurement of the environmental impacts (CO<sub>2</sub>, water and electronic waste) of 5 refurbished bestsellers: Apple iPhone 11, Samsung Galaxy S20FE, Apple iPad Pro 4, Macbook Air 2017, Lenovo Thinkpad T460.



Capturing our environmental impacts along our entire value chain forms the foundation of our **environmental strategy.**

- By mid-2024: Introduction of a verified calculation model for the environmental impacts of most refurbished smartphones, tablets, and laptops. This will consider CO<sub>2</sub>, electronic waste and water, in accordance with ISO standard 14040/44.
- By 2026: Expansion of environmental impact data to include at least 1 additional product category (subject to the availability of CO<sub>2</sub> footprint data for new products).
- **Collection of sustainability data from our refurbishers**
  - To date (2023): Conducting a voluntary survey on sustainability data from 19 refurbishers.
  - By the end of 2025: Collection of sustainability data from our refurbishers in accordance with legal requirements.

### Our expanded Corporate Carbon Footprint Measurement

SCOPE	DEFINITION	UNITS	2023
<b>Scope 1 &amp; 2</b>	Power consumption in the office		0
<b>Scope 3</b>	Dispatch of goods, employee commuting, business travel, water consumption and procurement (incl. B2B, BuyBack & add-ons)	Emitted t CO <sub>2</sub>	9.772,9
<b>Scope 3</b>	Products and services sold via refurbished (transport, refurbishment, utilisation) *		20.098,4
<b>Scope 4</b>	Avoidance of GHG emissions through the sale of refurbished instead of new goods **	Avoided t CO <sub>2</sub>	104.393,1

\*Voluntary disclosure of the carbon footprint of products sold through refurbished (smartphones, tablets and laptops). As a marketplace, we are not obliged to disclose products sold through our platform under the Greenhouse Gas Protocol, but have decided to do so in order to gain a better understanding of the impact of our entire value chain. This includes over 75% of the devices sold through us in 2023. The values were determined based on the quantity of products sold and the results of the ISO 14040/44 verified lifecycle assessment accounting model.

\*\* The avoided emissions were also taken from the calculation model. The avoided emissions indicate the CO<sub>2</sub>eq saved by selling refurbished appliances instead of brand-new appliances. The comparison with new products is based on the manufacturer's specifications, where available. Otherwise, a calculation was carried out using the reference product



# Pioneering work on environmental impact data using an externally verified calculation model

In 2022, we commissioned the research institute Fraunhofer Austria to measure the environmental impact of five bestsellers in their second lifecycle. We were pleasantly surprised by the results, as the savings were even greater than previously expected.

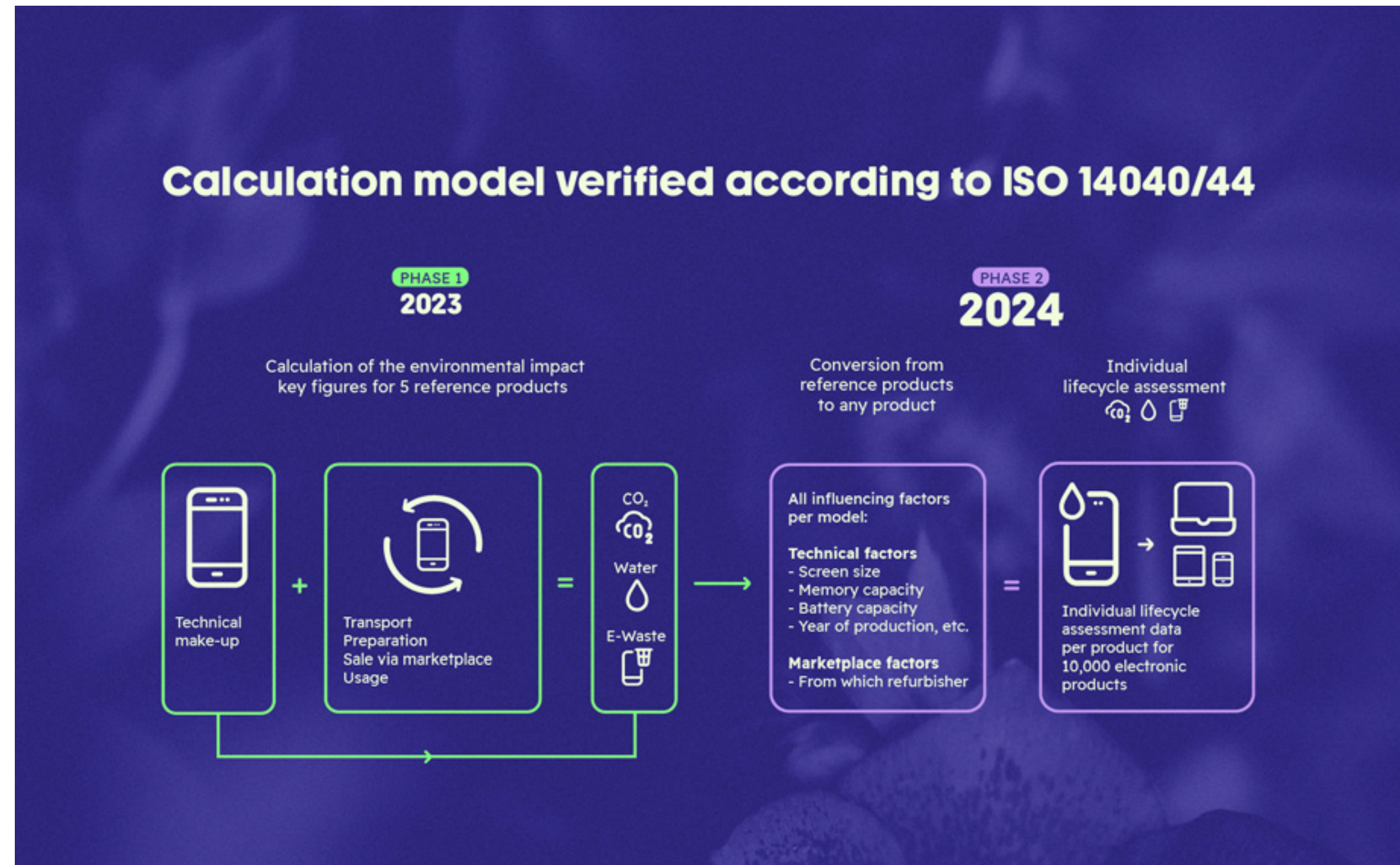
In our quest for innovation, we have once again used the expertise of Fraunhofer Austria in 2023 to create something revolutionary. Our goal was to develop a verified computational model that would allow us to measure the environmental impact of thousands of smartphones, tablets and laptops.

And this is how it works: We feed the model with technical data, for example for an iPhone 12: information on storage space (e.g. 64 GB) and other data such as battery and screen size. The calculation model is based on a wealth of knowledge and data, and is verified by an independent third party, namely GutCert in accordance with ISO 14040/44. After entering the technical data, we obtain the following ecological key figures:

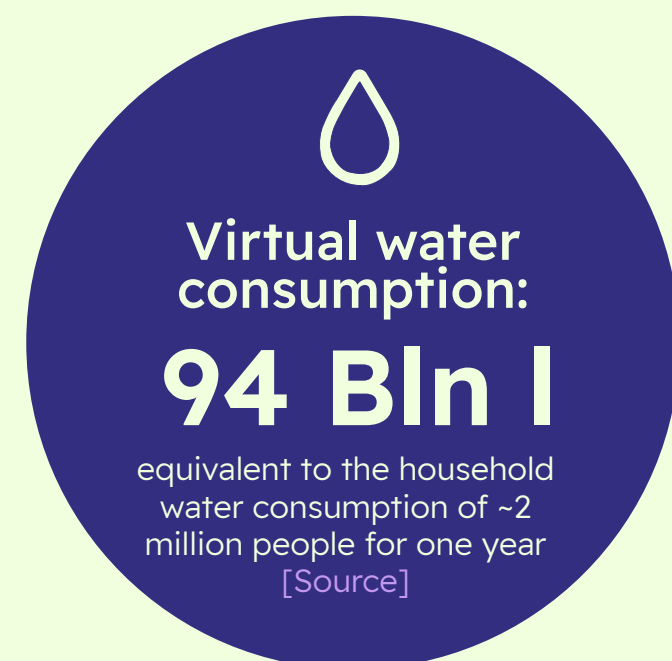
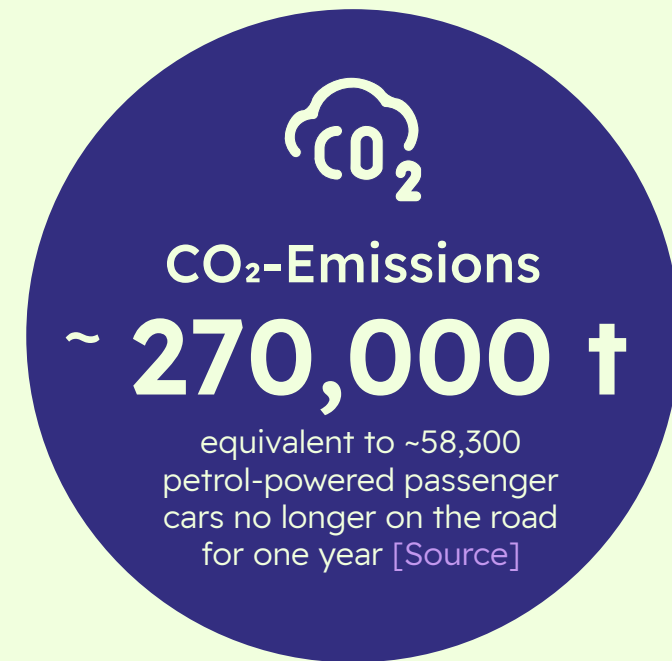
- Savings in CO<sub>2</sub>, electronic waste and virtual water consumption<sup>19</sup>, compared to a new device<sup>20</sup>.
- CO<sub>2</sub>-emissions, electronic waste and virtual water consumption in the 2nd lifecycle.
- Detailed breakdown of CO<sub>2</sub> emissions along the 2nd lifecycle for transport, refurbishment, distribution by refurbished and utilisation phases.

<sup>19</sup> Virtual water consumption is a calculation method that takes into account water use along the supply chain and weights it according to regional availability. It is a virtual value that takes into account the local conditions at the place where the water is used.

<sup>20</sup> The comparison with the respective new products was made on the basis of the manufacturer's specifications, if available. If no comparative data was available, a calculation was made based on the reference product.



Since our foundation, we have saved the following by selling refurbished electronics instead of new goods:<sup>21</sup>



<sup>21</sup> Based on the environmental impact data from our ISO 14040/44 verified calculation model.

### 3.2



**Our calculation model is characterised by a number of special features:**

- It is the first ISO 14040/14044-verified calculation model for the environmental impact of renewed products in the electronics industry that makes it possible to determine this data at this level of granularity at product level.
- The model creates clarity for consumers and thus enables a scientifically sound purchasing decision
- It offers companies and public institutions the opportunity to reduce emissions compared to a new purchase and save costs at the same time. We can now provide CO<sub>2</sub> emissions calculated using a verified calculation model.
- The results emphasise the important role of refurbishment in the circular economy.
- The calculation model brings us a big step closer to the goals of our first pillar of

### Pillar 1: Measuring our environmental impacts

refurbed's environmental strategy "Measuring environmental impact". Only when we have clarity about the environmental impact of products can we develop and implement effective reduction strategies.

**How was the calculation model developed?**  
The development of the calculation model can be explained in 3 rough steps, which are described in detail below.

- **Step 1:** Measurement of the environmental impact of three reference models (selected due to the high sales volume; 1 smartphone, 1 tablet and 1 laptop) in accordance with ISO standard 14040/44.
- **Step 2:** Development of a methodology to measure the environmental impact of further models in the product categories mentioned. This method is based on the findings from step 1.
- **Step 3:** Embedding the methodology in a calculation model: this enables the automated output of environmental impact data through the input of technical data from smartphones, tablets and laptops.

The measurement of the environmental impact of the reference models and the calculation methodology were reviewed by an independent third party (GutCert) and verified in accordance with ISO 14040/44.



### Founders' Comment: Focus on groundbreaking data collection

To once again pioneer the refurbishment segment, we are working with Fraunhofer Austria to expand on the research already conducted and create product-level environmental impact data through a ground-breaking computational model. This ground-breaking initiative aims to set new standards for assessing the environmental impact of products and contribute to a more sustainable future. We want to make it possible to understand the impact of individual consumption decisions - and this calculation model is designed to make this possible.

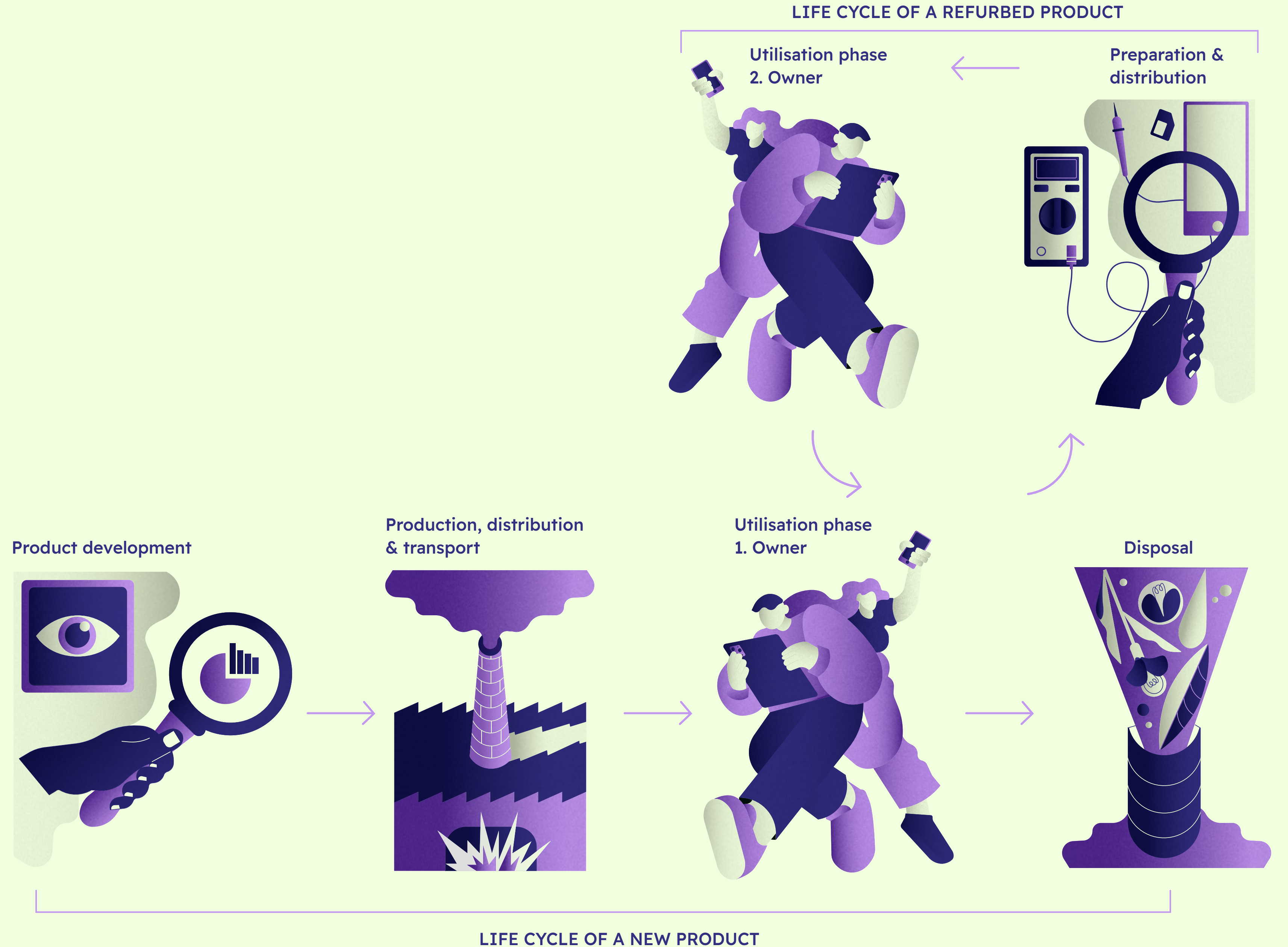
**1. Step 1: Measurement of the environmental impact of three reference models**

The measurement of the environmental impact of three reference models serves as the basis for the determination methodology by identifying the main sources of emissions from renewed products over their entire lifecycle.

A reference model representing a typical product was selected for each product category (smartphone, tablet and laptop). The iPhone 12 64 GB, iPad 6 32 GB and MacBook Air 2017 8 GB models were defined as reference models due to their high sales figures. Partial lifecycle analyses were carried out for these products in order to measure their environmental impact. As can be seen in the diagram below, the life cycle of a renewed product begins at the end of the 1st utilisation phase.

The data was collected in collaboration with refurbished and two major refurbishers, Remarketed in the Netherlands and Okamac in France. We would like to take this opportunity to thank Okamac and Remarketed for their excellent cooperation.

Fraunhofer Austria carried out on-site analyses and collected data via questionnaires on ecological footprints at company level, general information on reference products, the refurbishment process and the commuting behaviour of employees at refurbished and the refurbishers. Eco-databases such as Ecoinvent were also used as a data source to obtain information on spare parts manufacturers and transport companies, for example.



The data collection made it possible to identify all the key variables in the life cycle of a refurbished appliance. These are listed below:

- **Purchase of the devices:** Transport of the used devices to the refurbishers
- **Refurbishment:** Including; deletion of data, installation of spare parts, optical preparation & cleaning of the devices, evaluation of the devices and storage
- **Distribution** by refurbished
- **Sale of the devices:** Transport from refurbisher to customer
- **Utilisation** of the devices

Process steps such as packaging and shipping as well as the disposal of individual components are also taken into account. Furthermore, the return rate of the appliances was included in the calculation, which is reflected in the transport emissions.

The main sources of emissions can be divided into directly and non-directly attributable emissions. Directly attributable emission sources are, for example, the required spare parts or the required packaging. These quantities were recorded at product level and added to the reference products on average. Non-attributable emissions are, for example, energy requirements at the site, tools required for the refurbishment process or the commuting behaviour of employees. These quantities were allocated to the device/product category based on the processing time (laptops have an average



## Pillar 1: Measuring our environmental impacts

longer processing time than smartphones; and tablets have a shorter processing time than smartphones).

The following ecological parameters were analysed:

- **CO<sub>2</sub>-Emissions:** Balancing of seven types of greenhouse gases as CO<sub>2</sub> equivalents in accordance with ISO standard 14040/44.
- **Virtual water consumption:** Virtual water consumption is analysed in accordance with the Developer Environmental Footprint Version 3.1. Water use is weighted according to local availability. This method does not take into account the actual amount of water required, but a virtual value that reflects local conditions. For example, 1 litre of drinking water in Europe has a different value (factor 0.5-10) than in a lithium mining region (e.g. Chile: factor 60-100).
- **Electronic waste:** Quantity of electronic components that were replaced during the refurbishment process.

The results of the three life cycle assessments can be found in the Fraunhofer Austria report entitled "Life cycle assessment of refurbished electronics from the Refurbed Marketplace GmbH online marketplace in accordance with ISO 14040/444" on our sustainability page.

### 2. Step 2: Development of a methodology

The second step is to develop a calculation methodology that makes it possible to transfer the ecological assessment of the reference

products and retailers to thousands of smartphones, tablets and laptops of an average refurbisher.

### Correction factors for the average refurbisher

In order to take the average refurbisher into account in our research method, we conducted an online survey. 19 of our refurbishers took part. The largest refurbishers were particularly well represented, but medium-sized and smaller refurbishers also completed the questionnaire<sup>22</sup>. The following aspects were queried in the survey:

- **Average refurbishment:** Various steps are carried out during refurbishment, such as data erasure, optical refurbishment and replacement of defective parts. The replacement of parts has the greatest environmental impact. To properly account for this in our determination methodology, it is important to understand how many devices receive new parts.
- **Origin of the devices:** In addition to the weight and packaging of the products, the transport route is also decisive for calculating emissions.
- **Energy supply:** The type of energy supply (gas, electricity, etc.) and whether it comes from conventional or renewable sources influences the amount of emissions during refurbishment.

<sup>22</sup> 4 N = 19 Refurbishers, Tier 1 = 8, Tier 2 = 7, Tier 3 = 4

- **Commuting behaviour of employees:** Commuting behaviour varies depending on the location of the company. Rural locations are more likely to be travelled to by car, while urban locations are more likely to be reached by public transport.
- **Procurement of spare parts:** The way in which spare parts are procured - whether by purchasing new parts, reusing components that are still functional from defective devices or repairing defective parts - has a significant impact on ecological aspects. So-called "spare part harvesting", i.e. the reuse of functional parts from defective appliances, is widespread in the refurbishment sector. However, the data situation was assessed as insufficient, which is why new components were always assumed in the calculation methodology.
- **Shipping packaging:** The size, weight and materials used for shipping packaging influence the environmental impact.

Furthermore, the average return rate per product category was included in the calculation methodology using internal refurbished data.

Based on the data collected, correction factors were determined for the emission sources in each category. This means that statements can now be made about the reference products sold by an average refurbisher.

#### Conversion factors for the valuation of other products

Finally, conversion factors are derived based on the technical characteristics of the analysed



## Pillar 1: Measuring our environmental impacts

reference products in order to evaluate other models. Important technical characteristics are product weight, display size, battery capacity and product age. Product weight, for example, influences transport emissions during purchase and sale, while the display size and battery capacity of the different products are particularly decisive for refurbishment. The conversion factors can be used to calculate the environmental impact for different models.

The calculation methodology also includes a quality indicator for each product. This key figure defines whether and how well a product is suitable for evaluation by a rating scale<sup>23</sup>. If a device deviates too much from the reference model, it receives a score of 4 and the results are not shared. For example, it makes no sense to rate a push-button mobile phone on the basis of a smartphone.

### Step 3: Embedding the methodology in a calculation model

In order to quickly and easily assess a large number of products, the process needs to be automated. This brings us to the third and final step: the methodology was integrated into a calculation model. This model includes the stored information of the reference products as well as the correction and conversion factors. Now, only the technical data of the products need to be entered and the ecological data in the form of CO<sub>2</sub> emissions, virtual water consumption and electrical waste are generated.

With our calculation model, we can now ecologically evaluate ~ 10,000 smartphones, tablets and laptops that are sold via our

marketplace. This means that we have environmental data for around 70% of the devices sold via our marketplace in 2023.

Below we have listed the average values for each category, weighted by units sold across our platform in 2023. If you are interested in the environmental impact of individual products, you can read the full list on our [sustainability webpage](#).

**So-called "spare part harvesting", i.e. the reuse of functional parts from defective appliances, is widespread in the refurbishment sector.**

<sup>23</sup> Rating scale 1-4, 1 = excellent, 2 = very good, 3 = good, 4 = not suitable





# Refurbished Smartphones



∅ CO<sub>2</sub> EMISSIONS

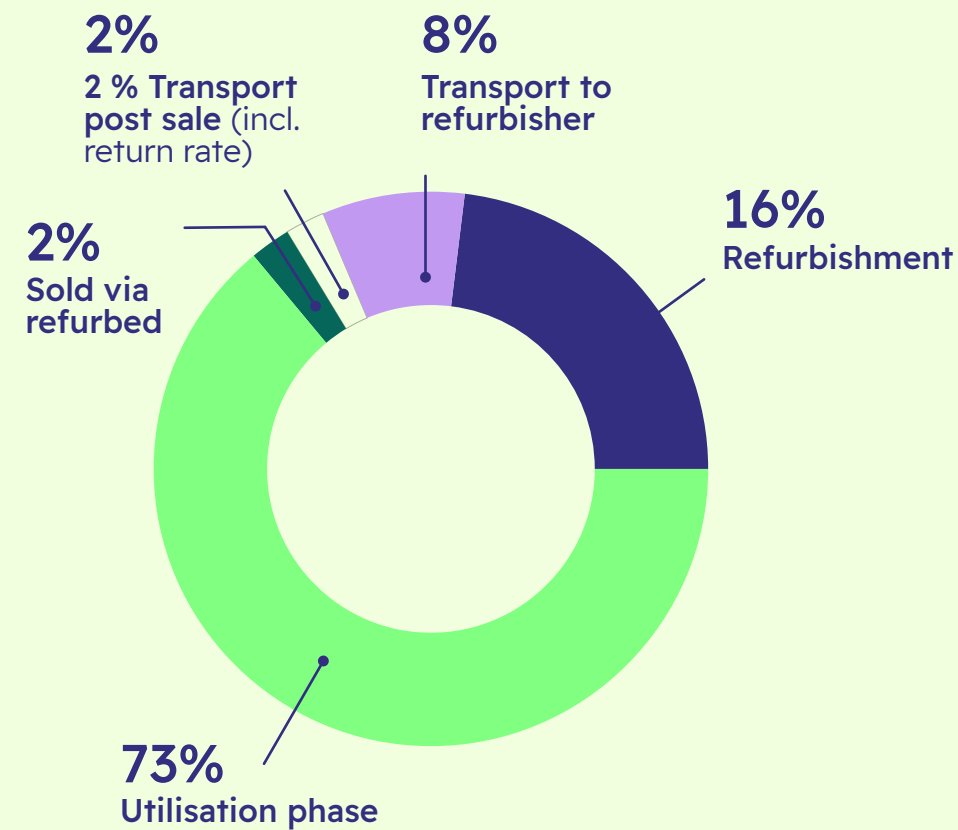
# 12.9 kg

CO<sub>2</sub>-emissions saved compared to new purchase:

# 83%

(=63.6 kg) this corresponds to 262 km by car\*

DISTRIBUTION OF CO<sub>2</sub> EMISSIONS  
2. LIFE CYCLE:



∅ VIRTUAL WATER CONSUMPTION:

# 3,086.2 l

Virtual water saved compared to new purchase:

# 89%

(=24,335 l) this corresponds to 162 bathtubs\*



∅ ELECTRONIC WASTE:

# 43.6 g

Electronic waste saved compared to new purchase:

# 77%

(=149.1 g) this corresponds to ~ 1.9 computer mice\*\*



∅ AVERAGE QUALITY INDEX:

# 1.8

\*Click the \* for the source

\*\*Assumed weight: computer mouse 80 g, computer keyboard: 500 g



# Refurbished Tablets



∅ CO<sub>2</sub> EMISSIONS

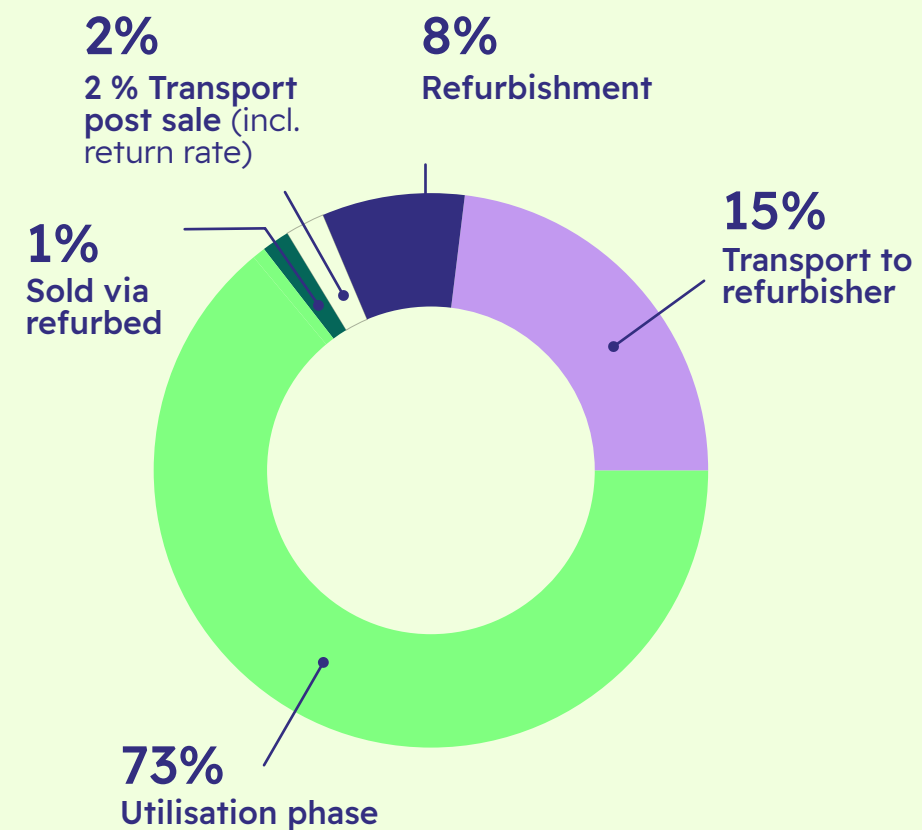
# 19 kg

CO<sub>2</sub>-emissions saved compared to new purchase:

# 80%

(=82 kg); this corresponds to 338 km by car\*

DISTRIBUTION OF CO<sub>2</sub> EMISSIONS  
2. LIFE CYCLE:



∅ VIRTUAL WATER CONSUMPTION:

# 3,755 l

Virtual water saved compared to new purchase:

# 91%

(=37,555 l); this corresponds to 250 bathtubs\*



∅ ELECTRONIC WASTE:

# 21 g

Electronic waste saved compared to new purchase:

# 96%

(=489 g); this corresponds to ~ 1 computer keyboard\*\*



∅ AVERAGE QUALITY INDEX:

# 2

\*Click the \* for the source

\*\*Assumed weight: computer mouse 80 g, computer keyboard: 500 g



Ø CO<sub>2</sub> EMISSIONS

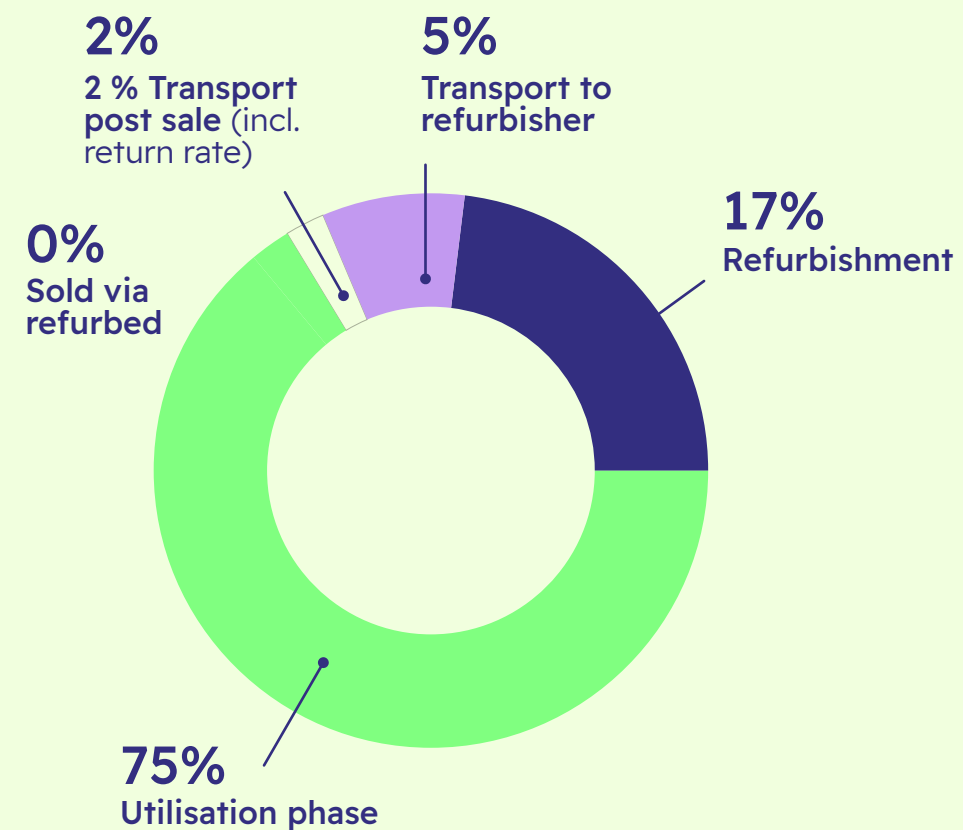
61 kg

CO<sub>2</sub>-emissions saved compared to new purchase:

83%

(=326 kg); this corresponds approximately to a return flight Vienna-Berlin\*

DISTRIBUTION OF CO<sub>2</sub> EMISSIONS  
2. LIFE CYCLE:



Ø VIRTUAL WATER CONSUMPTION:

13,827 l

Virtual water saved compared to new purchase:

85%

(=82,848 l); this corresponds to 552 bathtubs\*



Ø ELECTRONIC WASTE:

192 g

Electronic waste saved compared to new purchase:

89%

(=1.596 g); this corresponds to 3 computer keyboards and 1 computer mouse\*\*



Ø AVERAGE QUALITY INDEX:

1.6

\*Click the \* for the source

\*\*Assumed weight: computer mouse 80 g, computer keyboard: 500 g



Refurbished Laptops



### Summary and interpretation of the results

The results show that refurbished smartphones, tablets and laptops achieve an average CO<sub>2</sub> saving of at least 80% compared to new purchases. The distribution of CO<sub>2</sub> emissions along the lifecycle of all product categories is similar. The utilisation phase is at the top of the list with 73-75% of CO<sub>2</sub> emitted here. For smartphones and laptops, refurbishment is the next largest contributor to emissions, mainly due to the replacement of defective parts, while for tablets, product purchases are responsible for the second highest emissions. The transport (incl. return rate) from the refurbishers to the customers and the share of refurbished in the emissions is less than 2.5% on average.

The highest savings in e-waste compared to a new purchase are recorded for tablets at 96%. Smartphones show the lowest savings at 77%, mainly due to the replacement of batteries and displays. Refurbished laptops save an average of 89% e-waste compared to a new purchase.

The savings in the area of virtual water consumption are between 85% and 91% across the product categories.

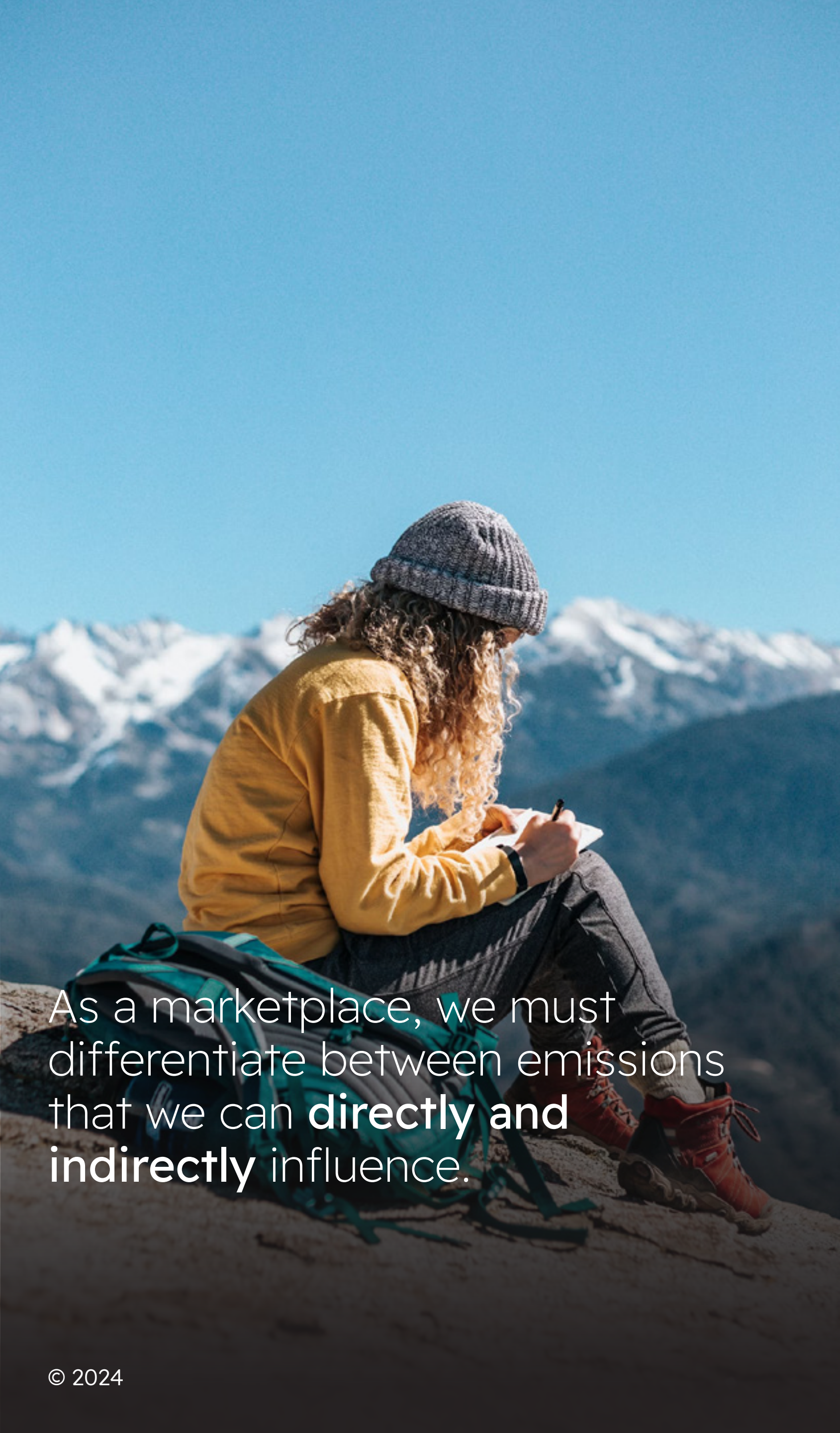
The utilisation phase accounts for the largest share of CO<sub>2</sub> emissions, although the emissions do not include all components of the utilisation phase. In the calculations, the utilisation phase was adopted by the manufacturers. The CO<sub>2</sub> emissions for an iPhone 12 are given as 9.8 kg per utilisation phase of 3 years. This only includes the electrical energy required to charge the



devices. If other sources of emissions such as data transfer (e.g. through streaming) or the use of cloud storage services were included, the emissions in this category could increase tenfold - namely to around 98.7 kg of CO<sub>2</sub> over the course of the usage phase. This shows that not only the purchase is crucial for reducing emissions, but also the consumer's usage behaviour. One simple way is to reduce the data quality of videos, for example. But the ball is also in the court of politicians and companies. Switching to energy from renewable sources would also contribute to a significant reduction. However, in order to ensure comparability with new products, the manufacturer's values were used in the calculations.

The main levers for further reducing the environmental impact are therefore refurbishment, product purchasing and the utilisation phase. With regard to the extent of refurbishment, it should be noted that better data on the use of "spare part harvesting" is required here in particular.

The new results from the current calculation model show even higher average CO<sub>2</sub> and e-waste savings through refurbishment compared to the previous study from 2023. This is due to the fact that the calculation method is now more accurate and more reliable data material is used, which leads to a more detailed picture of the savings potential.



As a marketplace, we must differentiate between emissions that we can **directly and indirectly** influence.

# Pillar 2: Reduction of negative environmental impacts

Reductions are an essential and incredibly significant step for our society to mitigate climate change. As a marketplace, we must differentiate between emissions that we can directly and indirectly influence. We have direct control over the energy consumption of our office, the selection of food at company events, and our IT equipment. However, compared to the products sold through our platform, these contribute minimally to the overall emissions. Emissions from products sold by refurbishers can only be indirectly influenced. Therefore, we can only be as sustainable as our refurbishers are. Hence, our goal is to work closely with our refurbishers to further minimise the environmental impacts of sold products (CO<sub>2</sub>, electronic waste, water).

#### Prerequisites for reductions:

- Continuous improvement of the Corporate Carbon Footprint at refurbished.
- Identification of the largest CO<sub>2</sub> hotspots for sold products as well as our marketplace. Development and implementation of an emission reduction strategy with goals and

**Emissions from products sold by refurbishers can only be indirectly influenced.**

measures, starting with the implementation of easily achievable measures.

#### Our goals regarding Pillar 2 (Reduction):

- **Reductions of product emissions through collaboration with refurbishers:**
  - End of 2024: Start the test phase of the emission reduction project with selected refurbishers.
  - End of 2025: Full implementation of the reduction project.
- **Reduction of refurbished-internal emissions (excluding refurbished products):**
  - Mid-2024: Internal reduction strategy is developed.

We plan to collaborate closely with refurbishers to work together towards a more environmentally friendly future. It is important for us to reward the efforts of refurbishers for greater sustainability. We are currently working on more detailed plans and will provide further information on this in the next sustainability report.



We now invest in a larger portfolio of diverse, **highly effective environmental projects.**

# Pillar 3: Financing of environmental protection projects

In addition to measuring environmental impacts and defining reduction strategies, financing environmental protection projects is the third pillar of our environmental strategy. From 2018 until January 2024, we partnered with organisations like Eden Reforestation to plant a tree for every product sold – totaling over 6.6 million trees. We are very proud of this achievement. In a time marked by ecological challenges such as climate change, loss of biodiversity, and excessive resource consumption, we have changed our strategy. We now invest in a larger portfolio of diverse, highly effective environmental projects.

Since February 2024, our financial support has focused on projects that not only mitigate the negative environmental impacts of our business, but also go beyond. We promote projects that sequester CO<sub>2</sub>, increase biodiversity, recycle electronic waste, and simultaneously generate social impacts. Additionally, we specifically support CO<sub>2</sub> removal projects that are crucial for global climate protection<sup>24</sup>, yet are not adequately funded and require further research, development, and scaling. Each project has undergone a thorough review process to ensure

that it not only reduces our environmental impacts, but also aligns with the desires of our customers and employees, and has a high and long-lasting impact.

## Our goals regarding Pillar 3 (Financing):

- **Financing high-quality environmental protection projects:**
  - Feb 2024: Strategy change – financing a diversified portfolio of high-quality environmental protection projects.
  - Annual review: Updating and adjusting the portfolio according to the latest developments and regulations.

## Our portfolio of Environmental Protection Projects:

We support various environmental protection projects. Further details can be found on the following pages.

- Recycling of Electronic Waste
- Landscape Restoration
- Innovative CO<sub>2</sub> Removal: Removal of CO<sub>2</sub> from the atmosphere through storage in rocks, biomass, and marine algae.
- Native Irish Tree Planting

<sup>24</sup> IPCC: 1,5°C Globale Erwärmung. Zusammenfassung für politische Entscheidungsträger.



Minimise collaborates with recycling centers and the local population in various countries.

# Recycling of electronic waste in Ghana

**Why:** Refurbished devices generate less electronic waste since they require fewer new resources compared to new devices. However, every electronic device has a limited lifespan, making electronic waste a negative environmental impact of our business model. Electronic waste is one of the fastest-growing waste streams. Globally, only about ~20% of electronic waste is recycled, mainly due to informal systems that harm the environment and health. Additionally, electronic waste is often illegally shipped to the Global South, where formal recycling structures are lacking.

**Our partner:** Minimise collaborates with recycling centers and the local population in various countries to collect, recycle, and reintroduce electronic waste into the circular economy. They refer to this process as "circulation."

**Project overview:** Minimise works with local communities in Ghana to maximise recycling and prevent electronic waste from ending up in landfills. Their goal is to professionalise this informal sector, for example, by providing safety equipment and suitable tools for environmentally friendly recycling. Since formal recycling does

not yet exist in Ghana, the electronic waste is shipped to Italy and recycled there, allowing valuable resources to be reused. This approach promotes the circular economy and includes local communities by ensuring fair compensation for waste collection.



Globally, only about ~20% of electronic waste is recycled, mainly due to informal systems that harm the environment and health.

**Impact 2024:**

- 50,000 mobile phones (~2600 kg of electronic waste) are collected and recycled. Certification is carried out by TCO, supported by KPMG. The amount of recycled gold, silver, copper, and palladium will be determined after recycling.
- Cleaner air and water, improved health, and economic benefits for the population in Ghana.
- SDGs 1, 3, 8, 9, 11, 12, 13, 15, 17

**Founders' Comment:**

In collaboration with Minimise, we support projects combating the illegal shipment of electronic waste and ensuring responsible collection and recycling of electronic devices.

"West Africa receives a significant portion of our waste, typically old electronics. Throughout the region, there are no recycling facilities capable of extracting the materials contained in this scrap. By contributing to this project, people working with electronic waste gain access to a safe recycling infrastructure. They no longer have to burn their waste, endangering their own health."

Stefan de Linde, Founder of Minimise





# Landscape restoration in Northern Ethiopia

**Why:** Refurbished devices generate fewer CO<sub>2</sub> emissions than new devices, as they prolong the lifespan of existing products. However, the refurbishment process itself also emits CO<sub>2</sub>. Restoring landscapes presents a holistic, nature-based approach that sequesters CO<sub>2</sub> while simultaneously enhancing biodiversity.

**Our partner:** The Swiss foundation myclimate is our partner, working closely with Ethiotrees to execute the project in Ethiopia.

**Project overview:** The project focuses on restoring forests and ecosystems in the rural villages of the highlands of northern Ethiopia. In addition to carbon sequestration and groundwater enrichment, it promotes biodiversity and creates sustainable income sources for the local population through beekeeping, resin harvesting, and agroforestry.

The project's goal is the comprehensive restoration of entire ecosystems in collaboration with local communities, aiming for long-term ecological, social, and economic benefits.

Certified under the renowned "Plan Vivo" standard, the project emphasises not only CO<sub>2</sub> storage, but also biodiversity promotion and direct support for local communities (e.g. communities receive 60% of the generated funds to decide on further project utilisation). With a planned project duration of 20 years, the project prioritises long-lasting changes and sustainable development.

Restoring landscapes presents a **holistic, nature-based approach** that sequesters CO<sub>2</sub> while simultaneously **enhancing biodiversity**.

**Impact 2024:**

- 7,997 CO<sub>2</sub> certificates from 2022 = 7,997 tons of CO<sub>2</sub> removed
- SDGs 1, 2, 6, 8, 13, 15



"We are delighted to serve refurbed as a customer who is conscious of its corporate responsibility. Together, we are committed to driving meaningful change and raising awareness of the importance of climate protection. The supported climate protection project with our project partner EthioTrees embodies the potential of companies to make a positive contribution to ecological sustainability while involving the community in the project country. We look forward to the positive impacts of our joint efforts."

**Lisa Lettenbichler, Corporate Partnerships Manager at myclimate**



**Founders' Comment:**

In collaboration with myclimate, we revive entire ecosystems. Our projects include not only knowledge of native plant species and their beneficial planting methods, but also the involvement of local communities finding sustainable livelihoods and actively contributing to the restoration of their natural surroundings. Additionally, we continue to plant native Irish trees for Irish customers with our partner Reforest Nation.





[...] we recognise the crucial need to **financially support hybrid technologies** for CO<sub>2</sub> removal.

# Innovative CO<sub>2</sub> removal in Europe

**Why:** The selection of these projects is based on the recognition that, alongside reductions, nature-based solutions alone cannot sufficiently limit climate change. The Intergovernmental Panel on Climate Change (IPCC) identifies the deployment of various CO<sub>2</sub> removal methods as essential in scenarios to limit global warming to 2°C or less by 2100<sup>25</sup>. Given the current global greenhouse gas emissions and limited financial resources for research and scaling, we recognise the crucial need to financially support hybrid technologies for CO<sub>2</sub> removal.

Despite the risks associated with hybrid CO<sub>2</sub> removal processes, they are indispensable in meeting the global demand for carbon removal. This perspective underscores the importance of continuous development and innovation to make a significant contribution to addressing climate change.

**Our partners:** We have two partners for CO<sub>2</sub> removal: Firstly, the reputable platform **Patch**, which advances the carbon market. Through Patch, we source carbon certificates from **Novocarbo** and **Running Tide**. Additionally, we collaborate with the Austrian project developer **Carbony**.

**Project summaries and impact 2024:**  
1. Novocarbo plants charcoal in Germany

**(carbon storage in organic material):** Heating organic materials in an oxygen-depleted environment to produce carbon-rich material, which can be used for various climate-friendly applications (e.g. improving soil quality and manufacturing sustainable building materials). Novocarbo operates three facilities in Germany, removing carbon daily since 2018. By 2030, they aim to remove 1 Mt CO<sub>2</sub> globally.

- Permanence of plant charcoal: 400-800 years
- 240 CO<sub>2</sub> certificates for 2025 (= 240 tons of CO<sub>2</sub> removed)
- Certification: Puro.earth
- SDGs 2, 7, 8, 9, 11, 12, 13, 14, 15, 17



## Founders' Comment:

The climate crisis demands urgent action, such as removing CO<sub>2</sub> that is already in the atmosphere and secure storage for such. Together with organisations like Patch and Carbony, we support initiatives focused on making a real difference in CO<sub>2</sub> removal.

**2. Running Tide seaweed biomass sequestration in Iceland (carbon storage in the ocean using seaweed):**

Cultivating and sinking seaweed forests, which can store up to 20 times more carbon per hectare than land forests. Running Tide employs natural alkaline minerals to build buoys on which the seaweed grows. When these buoys sink to the ocean floor, Running Tide not only removes carbon from the atmosphere, but also offers the additional benefit of sinking biomass deep into the ocean, reducing ocean acidification (which contributes to mass extinction of marine life and destruction of coastal communities).

- Permanence of biomass sequestration: 1000+ years
- 130 CO<sub>2</sub> certificates (= 130 tons of CO<sub>2</sub> removed in 2024)
- Certification: There is no conventional certification for this technology yet, but Deloitte has confirmed its protocol against ISO 14064-2.

**Carbony’s enhanced weathering in Bulgaria (carbon binding in rock):**

Natural rock weathering removes 1.1 Gt CO<sub>2</sub> annually, but this occurs very slowly. Accelerated weathering uses special stones ground to absorb carbon dioxide from the air within decades rather than millennia. Treatment of 8 hectares of land in Bulgaria, focusing on research and development. Research on CO<sub>2</sub> removal, soil health, water retention, and plant resilience in collaboration with the University of Natural Resources and Life Sciences, Vienna.



- Permanence: 10,000-100,000 years
- 108 CO<sub>2</sub> certificates (= 108 tons of CO<sub>2</sub> removed for 2025)
- Certification: Puro.earth
- SDGs 9, 13, 14, 15

**Pillar 3: Financing of environmental protection projects**



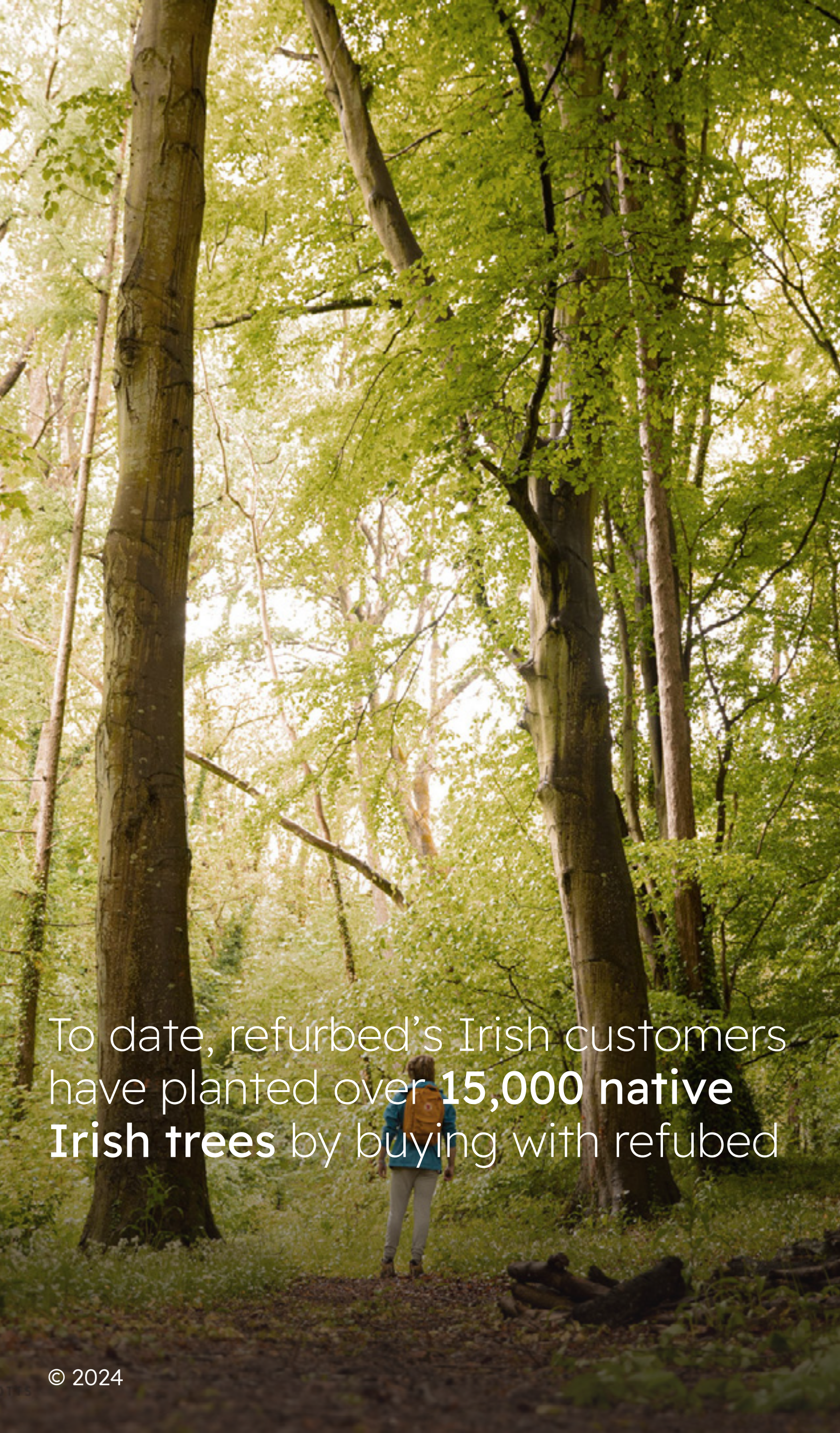
“refurbed is one of our dream partners. For many years, the company has embodied the circular economy and has supported credible climate protection measures. Our joint project, “Enhanced Rock Weathering,” marks a new era and demonstrates refurbed’s strategic steps toward advancing carbon removal. These play a key role in achieving our shared goals under the Green Deal. refurbed’s belief and support are exactly what is needed to disseminate carbon removal technologies. At Carbony, we are convinced that many other bold companies will follow their great example and generate the necessary momentum for effective climate solutions.”

**Matthias Rettenbacher, Co-founder and CEO of Carbony**

“More and more consumers wish for a sustainable shopping experience. refurbed’s commitment to sustainability and support for critical climate technologies through Patch, including projects for ocean carbon removal and plant charcoal, contribute to advancing climate protection.”

**Patch**

<sup>25</sup> IPCC: 1,5°C Globale Erwärmung. Zusammenfassung für politische Entscheidungsträger.



To date, refurbished's Irish customers have planted over **15,000 native Irish trees** by buying with refurbished

# Native Irish tree planting

**Why:** Ireland was once one of the most densely forested countries in Europe with 90% forest cover, but now is only covered by 2% forestry. This drastic forest loss has greatly damaged local biodiversity and ecosystems, along with water resources. Additionally, the lack of woodland further inhibits Ireland from sequestering and removing carbon from its atmosphere.

**Our partners:** Reforest Nation is an Irish owned, local Social Enterprise sparking Ireland's ecological revival by passionately regrowing native woodlands to craft a sustainable future that honours Ireland's ecological heritage. Reforest Nation works with volunteers to plant over 10 species of native Irish trees in counties all around Ireland, sprouting roots that were once culled. Together Reforest Nation aims to Reforest Ireland to its former glory.

**Project overview:** Reforest Nation plants native Irish tree species including blackthorns, Irish oak and hazel around the country of Ireland. They plant via the Miyawaki method, which has proven to promote rapid forest growth (forests mature up to 10 times faster), enhance biodiversity (the trees planted can host up to 30 times more species, fostering a rich ecosystem), and increase forest density, amongst much more. Not only does the Miyawaki method do all of this, but it also increases sapling survival by over 50%,

meaning that the native trees planted by refurbished customers make a genuine difference to Ireland's landscape.

## Impact:

- To date, refurbished's Irish customers have planted over **15,000 native Irish trees** by buying with refurbished, helping to reforest Ireland's beautiful landscape, enhance local biodiversity, and sequester carbon.

“Our goal is to make an impact in the world with the restoration of biodiversity and I know this is something which is shared with the team at refurbished. They are doing some outstanding work in making customers aware of the circular economy, particularly with day-to-day or modern ‘must-need’ products such as smartphones, tablets and laptops amongst others. I believe together, we can work to make a big difference not only amongst consumers, but also in the physical landscape of this country.”

**Gearóid McEvoy, founder of Reforest Nation**



# Reflection & looking into the future

The pressing environmental challenges of our time, including climate change, excessive resource consumption, and biodiversity loss, demand decisive action. In response, we see the circular economy as a promising strategy. We must change the way we consume as a society and rekindle an appreciation for resources. Through our rebranding, we hope to reach an even larger customer base and establish "refurbished" as the new norm.

Throughout the year 2023, we successfully expanded our product categories, including refurbished Sports, kitchen and household appliances, our trade-in service, and refurbished Business. This allowed us to increase the offering of more sustainable alternatives for our customers and strengthen the circular economy in Europe.

We take pride in our past successes, which demonstrate that economic success and sustainability can go hand-in-hand. However, we are also aware of the negative environmental impacts of refurbished devices. Therefore, we will intensify our focus on reduction measures in the future.

The upcoming EU directives play a significant role in our strategy. We see them as guidance

for our future efforts and an opportunity to strengthen the concept of sustainability across the entire industry.

2024 is an important year for us: we will further expand our product portfolio, as well as our environmental protection and circular economy initiatives. We will welcome new team members and strengthen our existing and new markets. All of this is aimed at convincing even more customers to switch to refurbished and become part of a new consumption model.



**In response, we see the circular economy as a promising strategy.**



## Founders' Comment:

**We continue to demonstrate that sustainable business can be profitable**

Sustainability and economic success can go hand-in-hand. We are determined to show that our circular core business not only contributes to a better planet, but also enhances the economic success of our business. We aim to be an example both for companies at the beginning of their journey and in motivating existing companies to engage in sustainable practices, even changing their core business to ensure long-term viability without harming our world.

**We're making refurbishment the "New Normal"**

With our evolution comes a change in our brand. We have introduced our new branding to reflect our ambitious mission and commitment to a broader range of environmental initiatives, product categories, and overall positive impacts. With our new look, we want to reach everyone – bringing refurbishment into every household; raising awareness of positive impact and integrating it into the lives of consumers – from the household, to work and to health. Introducing new categories like sports is part of this, and our development into the beloved brand we believe we are, is the focal point. Refurbishment must be the new normal, and that's how we want to think anew.



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