



# Shaping Motion

Responsibility Report 04



RIESE & MÜLLER

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Dr Sandra Wolf, CEO, and Heiko Müller, founder and CEO

Dear readers,

Given today's multiple crises, it would stand to reason that a company might rein in its sustainability efforts, as they are often associated with high costs and returns that are difficult to calculate. Not least because all measures should be viewed in the very long term, perhaps even as intergenerational.

But that is exactly what matters to us: how can we transform and rethink our business model so that future generations can also live a good life on this wonderful planet? More than ever, we believe this means making progress, demonstrating our position, investing and learning.

One of the biggest projects we launched last year saw us switch our frame production to recycled aluminium – a pioneering move for the bike industry. We illustrate our path to this achievement, the obstacles and successes, in this Responsibility Report. We describe how our vision shows us the way, how important partnerships are and what all of this has enabled us to achieve. However, this also demonstrates how profound changes can be and how much needs to change, how many people need to get involved and how small the steps can sometimes be.

But this is precisely what constitutes the social-ecological transformation. We accept these challenges, and we are reshaping the future. You can read about our other achievements and breakthroughs in terms of responsibility and sustainability here in our Responsibility Report #4.

Best regards,

A handwritten signature in black ink, appearing to read 'Sandra Wolf', written in a cursive style.

Dr Sandra Wolf  
CEO  
Responsible for sustainability

# Our vision: we will be the most sustainable company in the e-bike industry by 2025.

We are convinced that e-bikes change mobility in cities and rural areas in the long term.

For more and more people today, largely foregoing a car is simply part and parcel of a sustainable and healthy lifestyle.

Our high-quality and reliable e-bikes enable just that. Our commuting or adventure bikes means that every destination is now within reach, every route easy. Our durable cargo bikes get entire families on the move – transporting children, carrying the weekly shop, or arranging a spur-of-the-moment trip. Finally, our smart bikes for the city represent modern mobility in transition.

We are also working on innovative concepts to inspire even more people to enjoy alternative mobility: with practical rental bikes in retail, hire bikes for tradespeople or lightweight urban bikes that are flexibly available on a rental plan.

We are the “creators of tomorrow’s mobility”. In the 30 years since our company was established, it has always been our ambition to develop innovative folding bikes, bicycles and e-bikes for everyday use, and to produce them in a resource-conserving manner. We have remained true to these basic principles to this day. Since 2019, part of our corporate strategy has included the endeavour to make our business operations environmentally and socially responsible.

To achieve this, we are working to further reduce our CO<sub>2</sub> emissions, advancing waste-prevention projects and screening our supply chains for social and environmental risks. We are working towards maximum transparency across the entire value chain and are in direct contact with suppliers and partners. We want to encourage other companies in the cycling industry and to lead by example and personal commitment. Having a sustainable business model is not optional, it is a necessity for real change and a basic prerequisite for lasting success.

*“I am convinced: it is our mission to bring transparency into all areas of our business.”*

*Dr Sandra Wolf, CEO, Riese & Müller*



## Our strategy: responsibility at every level of our activities.

Within the company, sustainability means rethinking the business model and acting responsibly as an individual and as a company. This is an integral part of our strategy, which is based on four levels of responsibility.

### **Economics**

Efficient use of high-quality materials, avoidance of unnecessary waste and the use of natural alternatives for an environmentally friendly production process and sustainable economic efficiency.

### **Ecology**

Sustainable energy production, avoidance of CO<sub>2</sub> emissions, resource conservation and sensible waste management for a healthy interaction between our company and the environment.

### **Social**

Social commitment and promotion of community as a prerequisite for good cooperation. Meaningful activities and new work models that put people first.

### **Culture**

Creativity and ideas form an effective corporate and product culture in harmony with nature.

We take responsibility for a future worth living in.



Culture





Culture Mixte



UBN Seven



Roadster



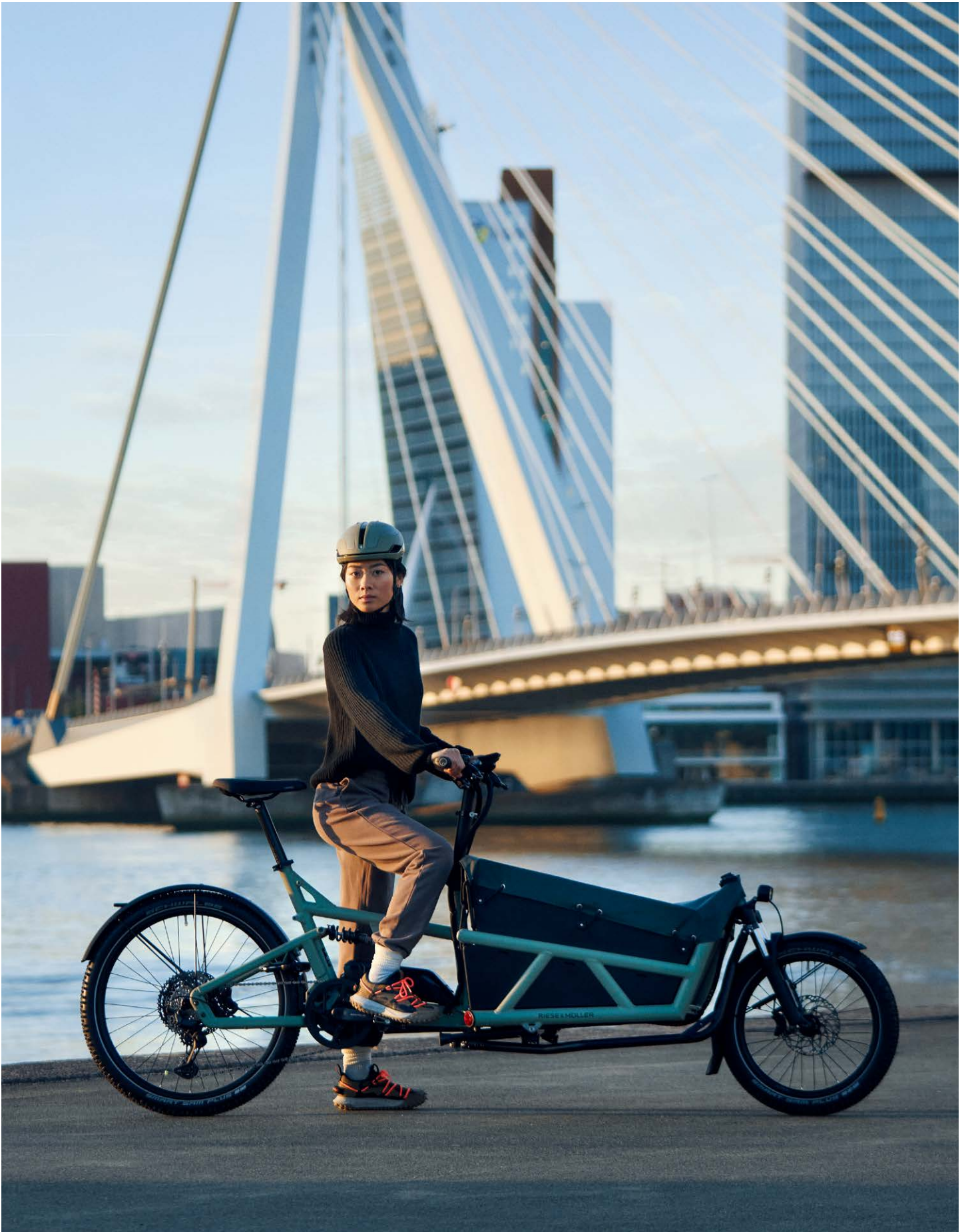
Multitinker



Multicharger



Packster 70



Load





## Focus: Circular Design

# A new culture for the cycling industry.

**As a manufacturer, we achieve the biggest impact when we manage to build products that are more sustainable.**

**We therefore follow the principles of circular design: we want to design our products today and in the future to ensure they offer lasting benefits and are easy to repair and recycled.**

The circular economy is considered an effective tool for sustainable economic development and for protecting the climate and conserving resources. In an ideal circular economy, ideally no waste would be created, making it the opposite of the linear economy, which only knows to discard the unwanted after a manufacturing and use phase.

To develop products in adherence with circular design principles, ingrained thought patterns and processes need to be reflected upon and reworked. This is nothing less than a cultural shift, and it requires the involvement of companies throughout the cycling industry, governments and consumers in order to recognise the value of responsible behaviour and to act accordingly.

# We are changing thought patterns and processes.

## What is circular design?

Circular design focuses on striving to design products from the outset so that they can be used for as long as possible and can enter a new service life at the end of their useful life.

## Circular design principle

A raw material (Supply) passes through a manufacturing process (Manufacturing) and is assembled with other parts (Assembly). The resulting product is sold (Retail) and then used (Use).

Circularity starts from here: during its service life, the product can be maintained and/or repaired by the user (Repair/Maintain), taken back by vendors and resold as a used product (Reuse/Redistribute), replaced by the manufacturer (Remanufacture) or disassembled into its components and recycled (Recycle). Ideally, it will be possible to return the original material back into the natural cycle (Regrow).

## Circular design at Riese & Müller

Taking the Culture, our minimalist e-bike for urban spaces, as an example, we aim to demonstrate the creative power of circular design principles, while focusing on aluminium as the central material.

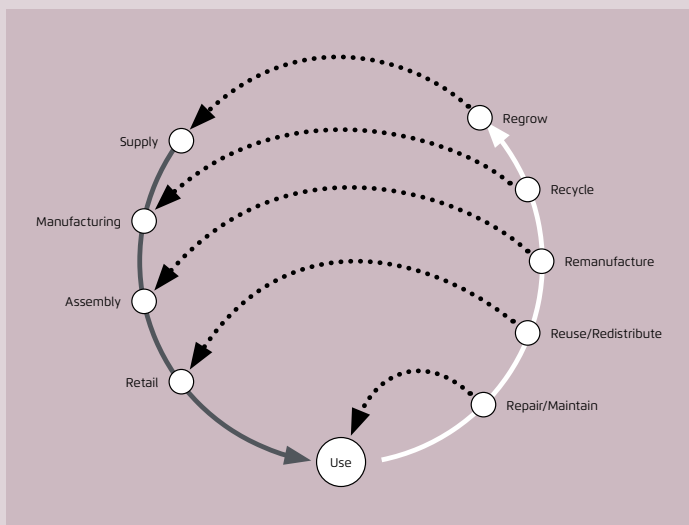
But our responsibility goes beyond the manufacturing of our products, which is why we are committed to viewing our footprint within the global context and without bias. Through our procurement routes and distribution channels (see [“Nearshoring/reshoring”](#) on page 50 and [“Reusable packaging”](#) from page 58, we know the influence our supply chain has on people and the environment.

Circular design as a thought principle can also be applied beyond production to the company’s other spheres of influence. For example, we help to shape regional infrastructure, are an active member of our community (see [“North car park”](#) from page 74) and, not least, we are an employer that values fair working conditions (see [“Employees”](#), [“Women at Riese & Müller”](#), [“Häuser am Berg”](#) from page 71).

We endeavour to establish sustainable processes in these varied contexts. We are confident that initiating these long-term and challenging changes will pay off.

## The new Culture

We have been working on anchoring the circularity of materials as a guiding principle in our product development since early 2021. Following an extensive test phase and a systematic analysis of our products, we began implementing circular design principles in the development of new products. The Culture is an important milestone on our way to becoming the most sustainable company in the bicycle industry by 2025: it is the most sustainable bicycle we were able to build in 2023.





Stepping into the future: the Culture is the first product we have developed based on circular design principles.

# Recycled aluminium has the potential to revolutionise the industry.

**As a material, aluminium has a range of properties that are perfect for constructing industrial components. Aluminium is comparatively light, remarkably sturdy and easy to process. It is corrosion-resistant and 100% recyclable. An estimated 75% of the aluminium that has been produced since the late 19th century is still in circulation today.** <sup>[1]</sup>

Nevertheless, aluminium is not an unproblematic material. The German Environment Agency (UBA) categorises the ore bauxite, the world's main source of aluminium, as a risk material because the conditions for people and the environment are inadequate in many producing countries.

What is more, the production of primary aluminium is an energy-intensive process. Just under 16,000 kWh are required to produce one tonne <sup>[2]</sup>. This equates to slightly more than the annual requirement of three four-person households (assuming an average annual consumption of 4,500 kWh).

On the other hand, one tonne of the primary raw material can be used to make 242 bicycle frames<sup>#</sup>, possibly more still depending on the percentage of recycled aluminium. The frame of our new Culture, for example, which is made of 46% recycled material, almost doubles this figure to just under 450 frames.

## Use at Riese & Müller

We use the metal mainly in our bikes' frames, which are made of 100% aluminium. There are also components, such as handlebars, stems, seatposts and carriers, which are either fully or partly made of aluminium. The weight of the frame alone means that aluminium makes up the largest risk material by percentage in our products. It is therefore also one of the pivotal areas for improvement. Over the past few years, we have

focused on identifying the challenges of the risk material in our supply chain and figuring out ways for us to contribute to the solution.

While keeping our products' quality standards consistently high, two of our most important responsibility goals in this regard are to reduce harmful emissions and to guarantee humane working conditions throughout our supply chain in Europe.

## Recycled aluminium

The recycling process requires just 5% of the energy needed to produce an aluminium alloy. The more we succeed in increasing the percentage of recycled aluminium in our frames, the more energy we save – and the more positively this impacts the climate. The Culture is the bike with the highest percentage of recycled material as of 2022/23 (more than half of the frame components, 46% relative to the total weight of the frame).

Recycled aluminium is currently used for components manufactured in an extrusion process (e.g. top tube and down tube). Cast and forged parts made of recycled materials (e.g. motor brackets and fork ends) are not yet on offer. The quality of the alloy is ensured using a material test certificate to verify the material properties. From our quality standards perspective, there is therefore no difference between alloys that do or do not contain recycled content.

With this in mind, we will use the Culture's frame as a benchmark for all bikes that we develop from scratch in the future.

<sup>#</sup> Example calculation based on the base weight of the Culture frame (4.123 kg)

## Roadmap of the partnership with Triangle's and Hydro

The milestones on the path to the first frame with a high percentage of recycled aluminium.

Q4 2021	First discussion about aluminium with Triangle's Cycling Equipments S.A.
Q1 2022	First discussion about recycled aluminium and ASI certification with Hydro Aluminium Extrusion Portugal HAEP, S.A.
Q2 2022	First meetings with Hydro and Triangle's to arrange long-term collaboration
Q3 2022	Agreement with Triangle's that future models should contain the highest possible percentage of ASI-certified recycled aluminium
Q3 2023	Production of the first frame at Triangle's begins: Culture
Q1 2024	Production of the second frame at Triangle's begins

### The Aluminium Stewardship Initiative (ASI)

The vision and mission of the ASI is to maximise the contribution of aluminium to a sustainable society and to recognise and collaboratively foster responsible production, sourcing and stewardship of aluminium.

The ASI Performance Standard audit creates common guidelines for companies throughout the aluminium value chain. There are eleven principles in this standard:

- Business integrity
- Policy and management
- Transparency
- Material stewardship #
- Greenhouse gas emissions
- Emissions, effluents and wastes
- Water
- Biodiversity
- Human rights
- Labour rights
- Occupational health and safety

In Triangle's we have a frame supplier and strategic partner capable of producing high quality and in high quantities in Portugal. The Portuguese subsidiary of Hydro is an important supplier of Triangle's. The Norwegian company Hydro is one of the biggest aluminium producers in the world. It advocates

for the use of renewable energies in aluminium production and for the metal to be recycled. Hydro has been a driving force behind the ASI's development.

### Nearshoring

Nearshoring is the effort to move production facilities as close as possible to the production site. This makes the logistics faster and more flexible and also yields environmental benefits. However, short distances should not be the top priority, as quality and sustainability are also important in maintaining long-term partnerships: turn to page 50 for more details on [nearshoring and reshoring](#).

### Code of Conduct

The Code of Conduct for our suppliers and business partners sets out our principles for dealing with people, the environment, business relationships, market behaviour, data, business secrets and company assets. Signing the document as a declaration of commitment is a requirement for collaborating with Riese & Müller.

**In conversation:** Luis Pedro, Executive Board Member and Chief Operating Officer at Triangle's Cycling Equipments S.A., and Raúl Fernández Martínez, Iberia Commercial Director (Extruded Solutions) at Hydro Aluminium Extrusion Portugal HAEP, S.A.

# "Not all aluminium is the same."

**Hello, Luis and Raúl! Could you please briefly outline the production process for the Culture frame, from the raw material to the finished product?**

Luis: Yes, I'm happy to. The Culture frame is made of recycled aluminium that is ASI-certified. This guarantees full traceability of the raw material and its origins. It is a frame made entirely at Triangle's using raw materials sourced in Europe.

**What are the benefits of aluminium as a material for e-bike and cargo bike frames?**

Raúl: Aluminium is lightweight, sturdy, corrosion-resistant and 100% recyclable. What could be better than that? However, it is important to understand that aluminium production is very energy-intensive. In order to ensure that the materials accelerate the transition to an emission-free society, we need to consider two parameters when selecting the material: its ability to be recycled and the emissions emitted to produce it. We can use these parameters to ascertain the overall impact of a material from the perspective of its life cycle and consider all the factors that have an impact on its carbon footprint.

**What are the challenges when processing recycled aluminium as it is used in the Culture?**

Raúl: Aluminium is 100% recyclable, and the recycling process requires just 5% of the energy needed to produce primary aluminium. But if we really want to contribute to reducing emissions, we need to recognise that not all recycled aluminium is the same. Recycled aluminium can contain two types of scrap: post-consumer scrap, which already had a previous life as a product and is collected at the end of its use, and pre-consumer or process scrap,

which consists of residual material from production processes. When extruding aluminium, around 80% of the total aluminium can be used in a billet to produce aluminium profiles. The rest – which we call pre-consumer scrap – is, of course, collected and recycled. But it does not close the loop to become part of a finished product. Recycled aluminium also contains a small percentage of primary aluminium to guarantee the correct alloy composition.

Luis: From the beginning of the production of the Culture model, Triangle's conducted a series of tests to safeguard the production process using recycled aluminium as well as its properties as an alloy. Triangle's has set itself the aim of using nothing but recycled aluminium for the production of frames by 2027.

**How would you describe the collaboration between Hydro and Triangle's?**

Luis: The partnership between Hydro and Triangle's is of strategic importance, because it enables the development of alloys using recycled aluminium. Manufacturing with recycled materials will be a new industry standard in the coming years – this is also a hallmark of the partnership with Riese & Müller, not just in this ambitious project. Raúl: Definitely. Since the beginning of our collaboration in April 2022, Triangle's has demonstrated time and time again that it aims to use more efficient aluminium profiles. Together we are a comprehensive supplier that offers profiles with a high percentage of recycled material, low carbon content and ASI certification. We have established a perfect collaboration to achieve all this: a truly sustainable relationship, born out of a desire to move the company and products in a more sustainable direction.

**Which tasks do you face with ASI certification? What are the benefits of completing the certification, also with regard to the bicycle industry as a whole?**

Luis: Triangle's is already a member of ASI and certified. This certification will enable us to improve our responsible business practices and to meet the expectations of our stakeholders. We want to demonstrate our sustainable practices to these stakeholders and gain a competitive edge by improving our business practices over the course of the certification process.

Raúl: ASI certification fits in really well with our approach towards sustainability: it is important that we deal with the impacts of our own actions in our extrusion plants, but also that we are part of a responsible aluminium value chain. All Hydro units in Spain and Portugal have both ASI Performance and ASI Chain of Custody certification. We are delighted that more and more companies like Riese & Müller and Triangle's are joining in with our combined efforts to establish a more sustainable supply chain in the aluminium industry.

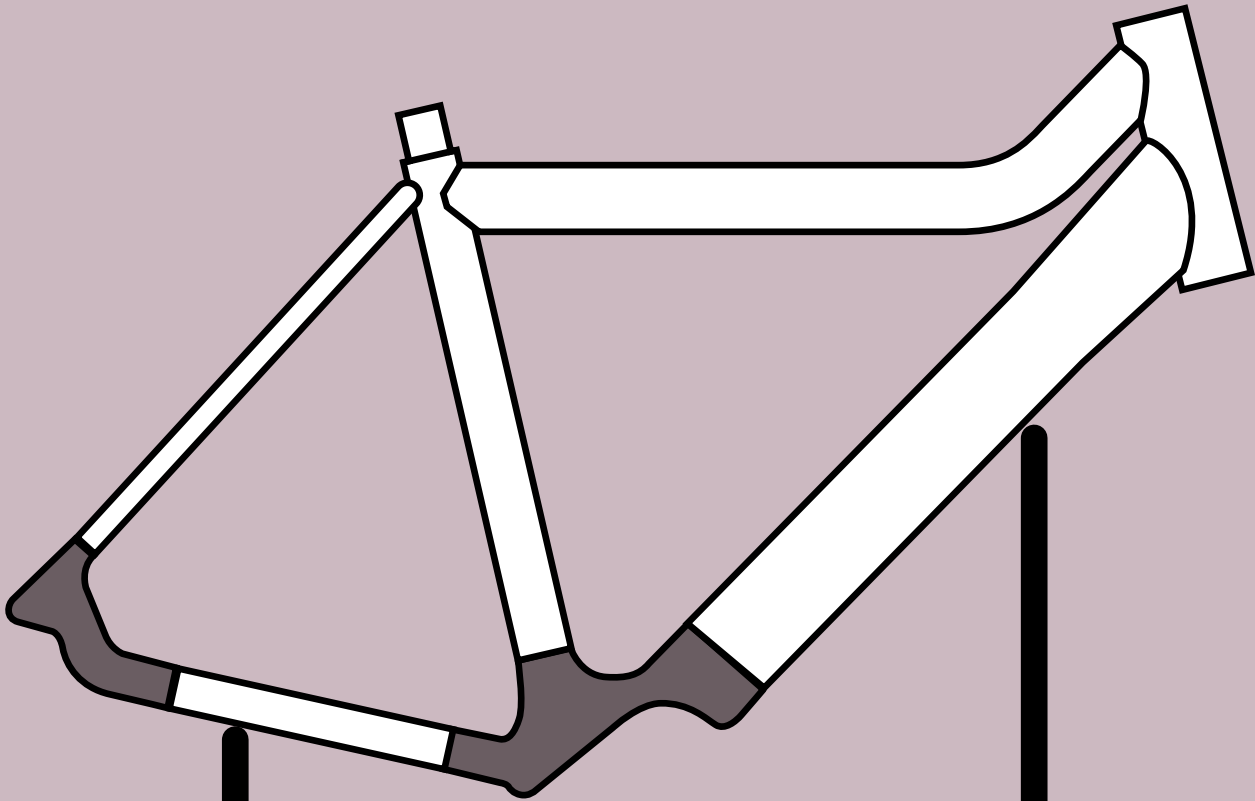


Riese & Müller has been working with Portuguese manufacturer Triangle's Cycling Equipments S.A. since 2018. The company supplies the current frames for the Culture, the Supercharger, the Nevo, the Carrie and the models in our Urban Line. Triangle's has succeeded in bringing high-quality frame construction back to Europe. Up to 375,000 frames in total are produced here every year. A win for Riese & Müller and the entire industry. Triangle's will be audited in accordance with the ASI Performance Standard in early 2024.



Hydro Aluminium Extrusion Portugal HAEP, S.A. is a new and important link in our supply chain. The business unit employs more than 21,000 people in 40 countries. Since 2021, all European businesses within the company have been certified in accordance with the ASI Performance Standard. As a supplier of frame manufacturer Triangle's, the strategic partnership enables us to take the next steps on the way to products that are even more sustainable.

The Culture's frame consists of individual parts that our supplier Triangle's makes using various processes. To date, recycled aluminium can only be used for components manufactured in an extrusion process.





## Supply

The product carbon footprint depends on the materials used.

We chose aluminium as the material to make our frames. We are aware of the responsibility involved in using a risk material. So it is extremely important to us that we improve the environmental protection standards and human rights conditions relating to the material and guarantee a transparent supply chain.

### High percentage of recycled aluminium

Together with frame manufacturer Triangle's and aluminium supplier Hydro, we were able to achieve a percentage of over 70% alloys made of ASI-certified recycled aluminium in more than half the frame components. In relation to the total weight, 45.99% of the frame is therefore made of recycled materials.

We developed the Culture with this aim from the outset. Because recycling has major benefits:

- Recycled aluminium does not mean a loss of quality – the material comes with a test certificate to confirm its properties conform to standards.
- Established initiative (ASI) to maximise aluminium's contribution to a sustainable society.
- Recycling aluminium requires only 5% of the energy needed to produce primary aluminium.
- 75% of the aluminium ever extracted is still in circulation today.

### Other materials

We have also made other fundamental decisions about the choice and use of materials. The prerequisite is that the preferred materials must meet our high quality, resilience and durability standards:

General criteria:

- Whenever possible, we use recycled and recyclable materials.
- We prioritise the use of mono-materials. At the end of their service life, if they are not recyclable, they can be disposed of without additional effort. By contrast, composite materials need to be separated. This is usually energy-intensive, if it is even possible at all.

### Specific materials

- We use injection moulded parts made of recycled polypropylene (PP), for example for the reflector bracket on the Culture.
- We do not use any glass reinforced plastic (GRP) in our own developments because the material is difficult to dismantle into its basic elements.
- We do not use any polyvinyl chloride (PVC) in our own developments because it is obtained from crude oil and contains highly toxic chemicals that are released upon its disposal.

## Manufacturing

### Design impacts the climate.

We make important decisions about the production process early on in development based on circular design principles: these stipulations help us to save important resources in manufacturing.

#### **One colour**

The solid colour in biscuit, denim or blossom characterises the timeless design of the Culture models. The sustainability benefits are mainly the lower consumption of materials, the more efficient process and the lower level of cleaning and waste production compared to a multi-coloured design.

#### **Resource-saving application method**

The Culture's frame colour is applied using a powder-coating process, where the frame is electrostatically charged so that it attracts the coloured powder, similar to how a magnet works. The colour is then cured.

The process has many benefits over painting:

- The dye does not contain any hazardous solvents.
- 95% of the dye powder that does not stick to the frame can be reused. By contrast, when painting a bicycle, a fine spray mist is used, and the paint that does not stick is irretrievably lost.
- Less water is used, and the wastewater can be recycled.

#### **Unpolished welds**

The main reason to sand welded joints is for visual appeal: cleanly crafted welds are a quality attribute and match the aesthetic of our bikes. By cutting out the tasks that are not technically necessary, we can save energy and avoid waste (abrasives).

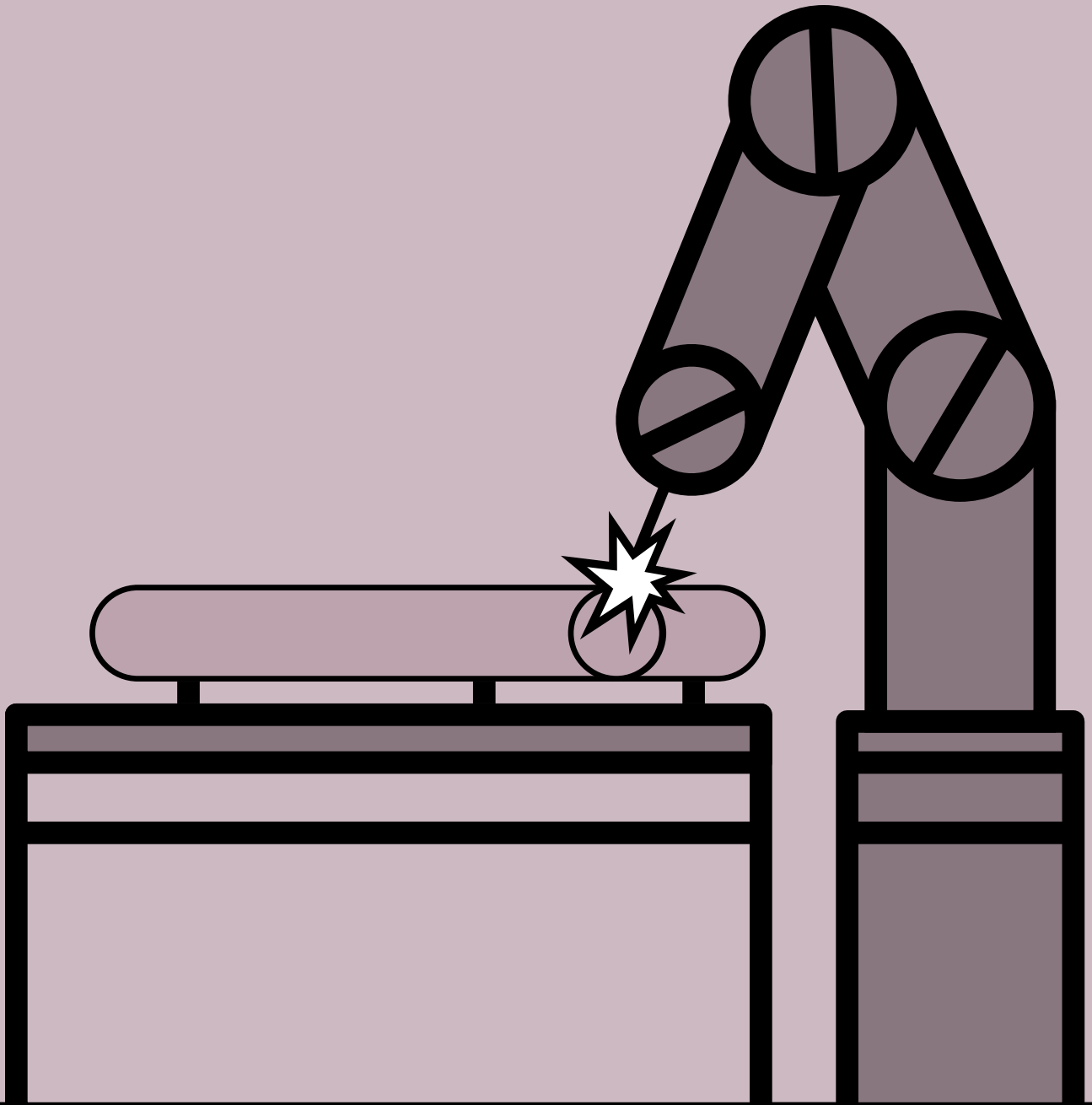
#### **Component selection**

When selecting the right mounting parts for the Culture, we chose suppliers who meet our high quality and sustainability standards. All our suppliers have signed our Code of Conduct or equivalent agreements on sustainable production, social responsibility and fair working conditions.

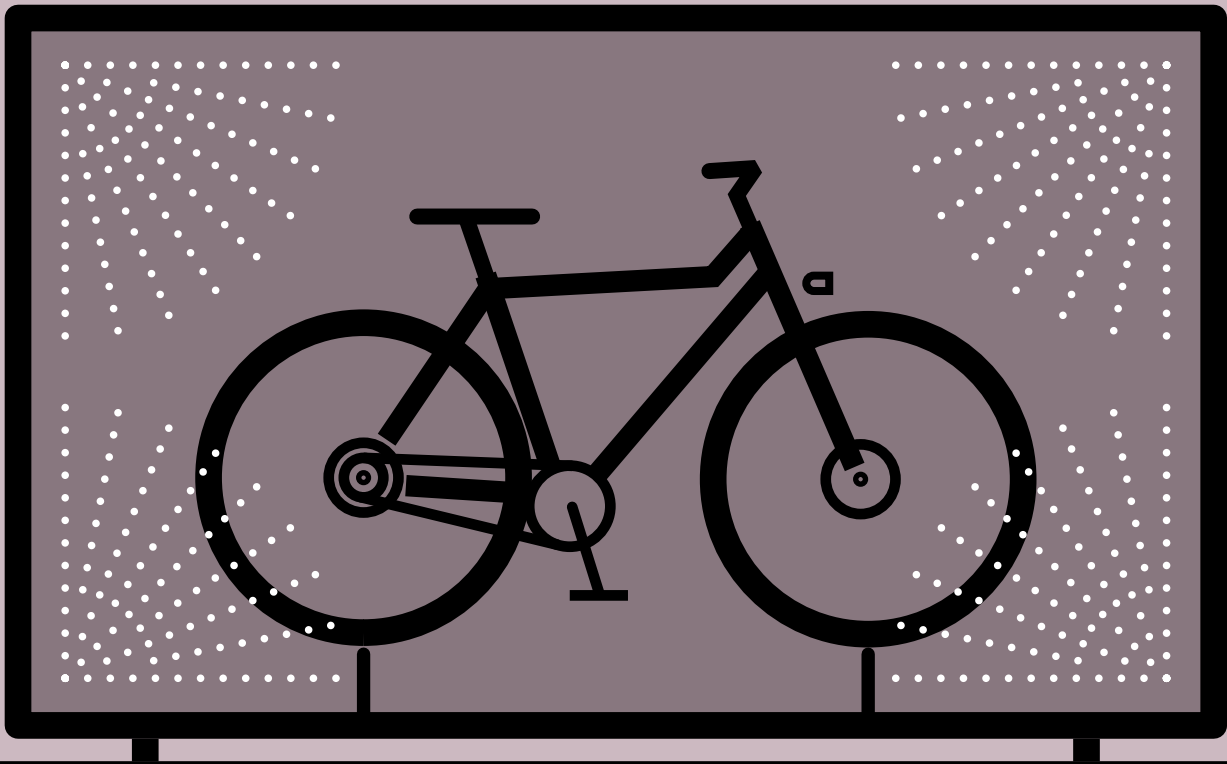
Examples of the mounting parts include:

- Handles – Herrmans Grips Line:  
ISO 14001 certification, made using renewable resources and recycled materials
- Saddle – Selle Royal Essenza Eco:  
The outer is made of plant-based raw materials, the shell of recycled materials, ISO 50001 and ISO 14001 certification
- Tires and tubes: Schwalbe Big Ben / AV19:  
Part of the Schwalbe Recycling System ([www.schwalbe.com/recycling-system](http://www.schwalbe.com/recycling-system))

Welded joints fall under the DIN EN ISO 2553 standard. A differentiation is made between the different joint types depending on the position and angle of the workpieces to be welded. The fillet weld is known for producing an even curve and can be found on many of our frames – a quality feature.



We use a 3 x 1.2 x 0.8 m test chamber to ensure the quality of our e-bikes and cargo bikes. And we use the salt spray test to verify the corrosion and weather resistance of our product portfolio.



## Repair/Maintain

# Circular design has direct benefits for our customers.

Sustainable product design is the prerequisite for simple repairs and maintenance that bicycle owners can complete themselves during the bikes' use phase.

### **Minimalist, timeless design**

The Culture's design is an expression of its sustainability standards. A focus on high-quality, functional components and a conscious decision to avoid complex features results in a minimalist product that is simple to maintain and especially durable.

### **Detachable connections**

We have only used connection types that can be undone using a standard tool. We avoid bonding wherever we can.

### **Testing quality and construction**

We have the strictest quality standards, as this promotes durability. Our bikes are therefore reliably tested in multi-stage processes:

- Riese & Müller usability testing in collaboration with the Zedler-Institut für Fahrradtechnik und -Sicherheit GmbH as per DIN EN 15194 for pedelecs/e-bikes
- Testing each batch of frames using a coordinate measuring device to ensure the dimensions match the technical drawings
- Additional visual inspection of the frames
- Stone chip testing for the powder coating
- UV testing for the powder coating and the textiles used for the cargo bags
- Corrosion resistance testing for metal components (e.g. the frame, screws, brake discs) in the salt spray chamber
- Test ride and safety testing by professional test riders

### **Use and maintenance tips**

We provide extensive information for the use phase, e.g. how-to videos on our YouTube channel, so that end consumers are in the best possible position to ensure the product lasts as long as possible. We supply assembly instructions with all accessory parts.

# The highest quality passes through many hands.

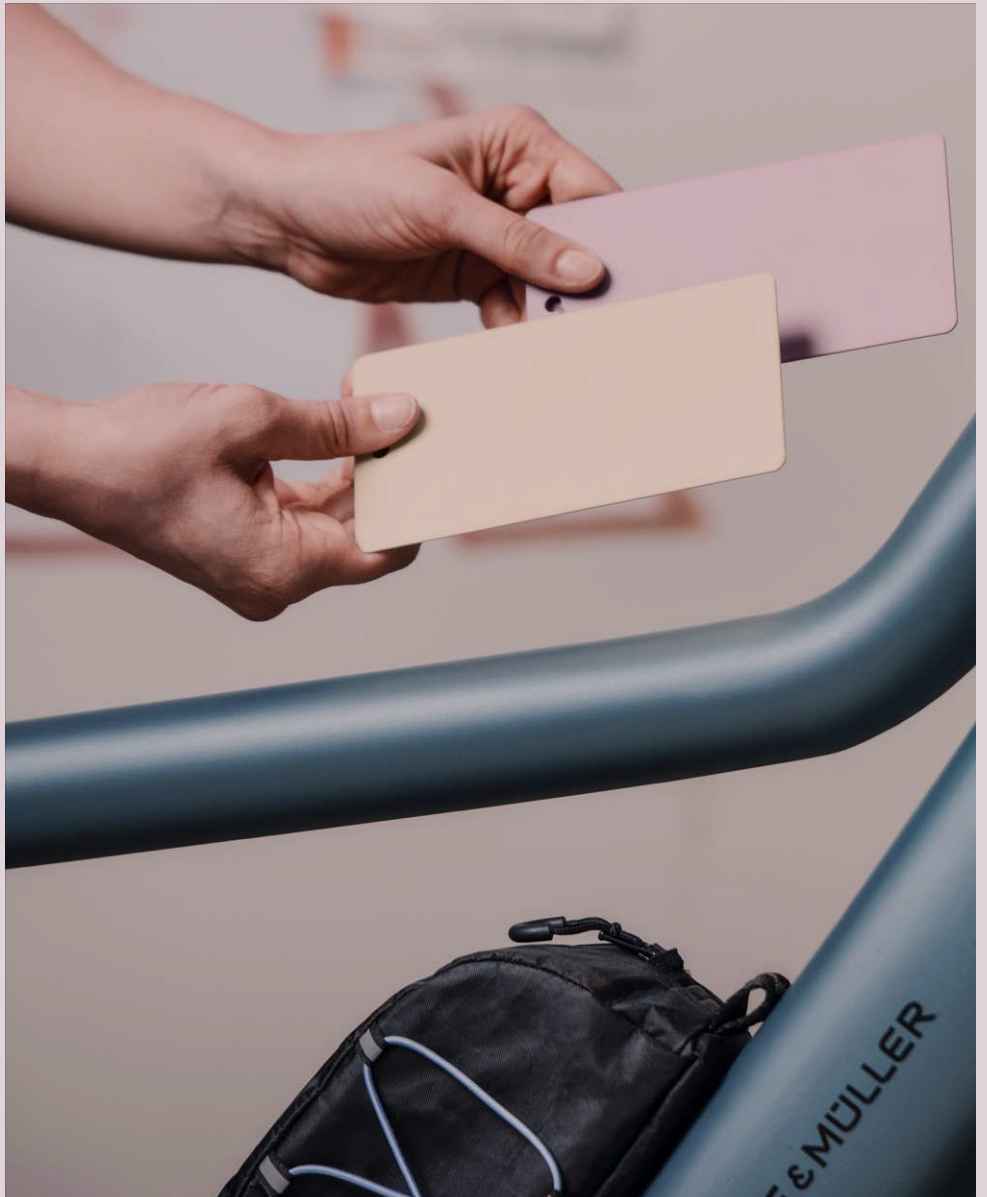
From big plans to reality: the Culture, a trendy, ultra-minimalist e-bike with the typical Riese & Müller riding dynamics fulfils our quality promise to dealers and our customers. And it puts our sustainability and responsibility endeavours into practice through a laser-sharp focus on circular design principles.

The e-bike is created in the perfect synergy of mechanical production and the human touch: more than 40 employees are involved, from the initial design right through to the finished bike.









## Design

The Culture speaks a design language that is deliberately less technical – in favour of timeless, soft shapes that call to mind a traditional bicycle. A new silhouette for Riese & Müller.





## **Prototyping**

In this step, the ideas from the design are modelled and tested with a view to subsequent production. The focus is on all the aspects that concern the expected use, for example the construction, function and ergonomics.



## Components

When it comes to the bike's technical features, we decided on a limited choice of high-quality, tried-and-tested components from reliable partners to keep maintenance and repairs to a minimum.







## **Quality**

Our Quality Management team tests all frames received with a high-precision coordinate measuring device. Thanks to the efforts of our experts in Technical Quality Management, the Culture exceeds most requirements in the specified standard for e-bikes (EN 1594).

## **Textiles**

The integrated frame bag offers storage space for the Range Extender, which is the size of a water bottle, or for small practical items needed on short rides.









## Repair Unit

We are setting up a new department for 2024. In future, it will carry out repairs on our textiles.



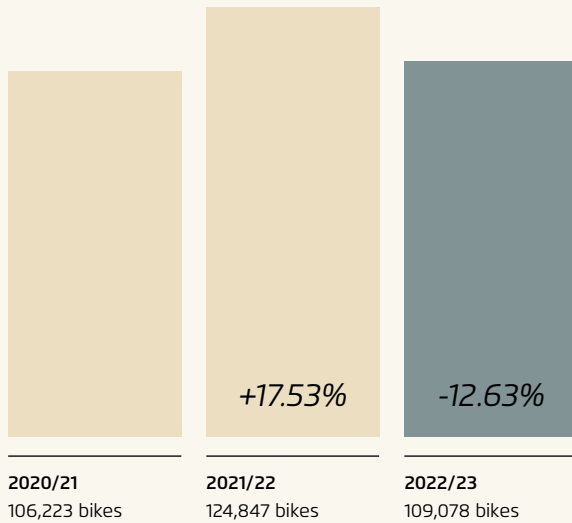


Facts and Figures

2022/23 business year

# Influencing factors

## Bikes produced



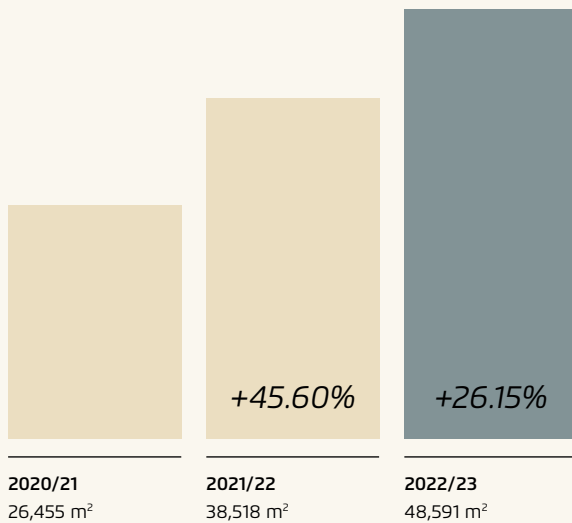
People are becoming increasingly aware of sustainable mobility. Over the past three years, we have observed the trend towards high demand for e-bikes and cargo bikes, both for private and commercial use.

Nevertheless, price fluctuations in the energy and commodity markets, triggered by the war in Ukraine and other factors, is causing consumers to act cautiously.

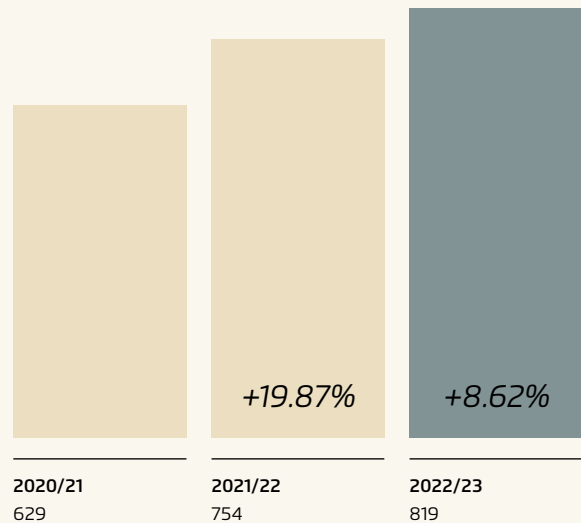
We are convinced that the mobility transition will continue to progress, the market will grow in the long term and our innovative, high-quality products will remain in demand.

This is also evident in the annual [Bike-Friendly Cities Rating](#)<sup>[3]</sup> conducted by the German Cyclist's Association (ADFC) in Germany, as the cycling infrastructure in large and metropolitan cities is catching up quickly and is converting more and more people to cycling.

## Total usable floor space



## Employees





# Carbon footprint 2022/23

## Distribution of CO<sub>2</sub>e emissions by category

	Gross	Net
<b>Scope 1: Direct emissions (t CO<sub>2</sub>e)</b>	<b>291.77</b>	<b>185.75</b>
Mobile combustion (fleet)	185.75	185.75
Stationary combustion (green natural gas)	106.02	0 <sup>(1)</sup>
<b>Scope 2: Indirect emissions from energy provided (t CO<sub>2</sub>e)</b>	<b>0</b>	<b>0</b>
Purchased green electricity	0	0
<b>Scope 3: Other indirect emissions (t CO<sub>2</sub>e)</b>	<b>4,453.14</b>	<b>4,362.83</b>
Fuel and energy-related emissions	219.76	190.12
Transport and distribution	2,913.05	2,852.05
Waste produced	38.27	38.27
Business travel	244.38	244.38
Commuting	1,030.63	1,030.63
Digital working	7.39	7.39
<b>Total (t CO<sub>2</sub>e)</b>	<b>4,745.25</b>	<b>4,548.58</b>

The gross emissions refer to all emissions reported in accordance with the Greenhouse Gas Protocol (GHG). The GHG is an international standard that is used to account for a company's greenhouse gas emissions. To calculate net emissions, the emissions that have already been offset are deducted (carbon-neutral natural gas from ENTEGA).

We calculated our carbon footprint with the support of the myclimate non-profit foundation.

CO<sub>2</sub> equivalents (CO<sub>2</sub>e)<sup>(1)</sup> indicate the different climate gases and their impact on the environment and climate. They are given in relation to the same volume of pure CO<sub>2</sub> over a defined period of usually 100 years. According to the Kyoto Protocol, there are several greenhouse gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O), as well as the fluorinated greenhouse gases (F gases) – hydrofluorocarbons (HFCs) containing hydrogen, perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>). The United Nations has defined this index to enable the different greenhouse gas emissions to be compared. It is indicated by the lowercase "e" behind the formula for carbon dioxide: CO<sub>2</sub>e.

In the 2021/22 business year, we recorded net emissions of 6,986.08 t CO<sub>2</sub>e. We have been able to significantly reduce this figure to 4,548.58 t CO<sub>2</sub>e (down 34.89%). Overall, we had lower demand. With 109,000 bikes produced, we are behind the previous year's high figure of 124,000 bikes. The three-year trend remains positive, with a growth of bikes produced totalling 2.7%.

### Short journeys pay off

The figures for the fleet and waste production remain at the same level. We were able to reduce overall emissions in logistics. The main reasons for this were the decrease in air freight shipments and the shorter supply chains thanks to the increased percentage of European suppliers. This has enabled us to fall further below last year's low figure for carbon emissions per bike – it is now at 41.70 kg CO<sub>2</sub>e (-25.48%), our lowest emissions per bike value to date.

### Green electricity and photovoltaics

Solar panels on the roofs of our plant in Mühlthal generate 43% of our direct electricity consumption. We also purchase certified green electricity at night from fully renewable energy sources for our electric logistics vehicles. During the day, we feed excess electricity produced by the panels into the grid – we have calculated that we thus cover around 80% of our electricity consumption. This energy we feed into the grid can supply up to 150 households.

### Building expansion and heat pump

An electrically powered heat pump is now responsible for an increasing amount of our heating requirements, which has led to a significant reduction in gas heating.

Despite expanding the building stock and requiring additional electricity consumption due to construction sites needing to be set up, measures have been taken to reduce the ecological footprint. Reducing the heating temperature to 20 degrees has played an important role in this.

As part of plans by our partner organisation myclimate to update its calculation principles, a few specific emissions factors have been developed. These adjustments have been made to ensure the data basis is always up-to-date and reliable. As a result of these updates, the emissions balances vary slightly compared to the previous year's figures (increase in CO<sub>2</sub> emissions by 35 t).

### 10,000 trees for forests around Darmstadt

In an effort to make a tangible impact in our region, we donated 10,000 climate-stable seedlings to reforestation projects back in 2021/22. In spring 2022, 4,050 of these seedlings were planted – 150 sweet chestnuts in Mühlthal and 3,900 northern red oaks and European hornbeams in Pfungstadt.

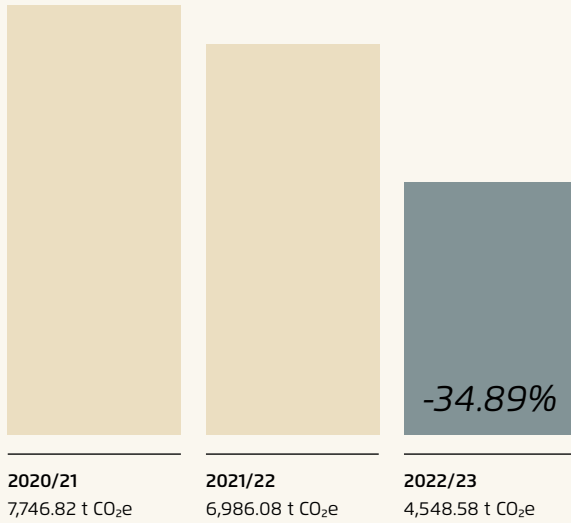
### Mountain forest project and customer reviews

We have also planted 1,000 white maple seedlings in the Neu-Anspach Forest with the help of the Bergwaldprojekt mountain forest association. The native tree species help with environmental reforestation. We also donate a tree for every customer review on Trustpilot.

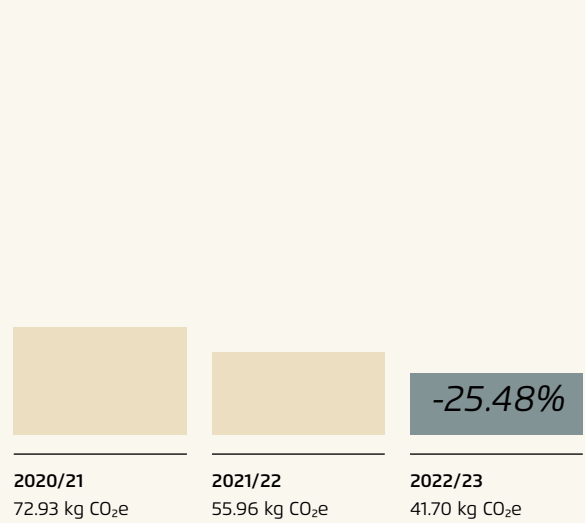


# Carbon footprint compared

Total CO<sub>2</sub>e emissions



CO<sub>2</sub>e emissions per bike produced



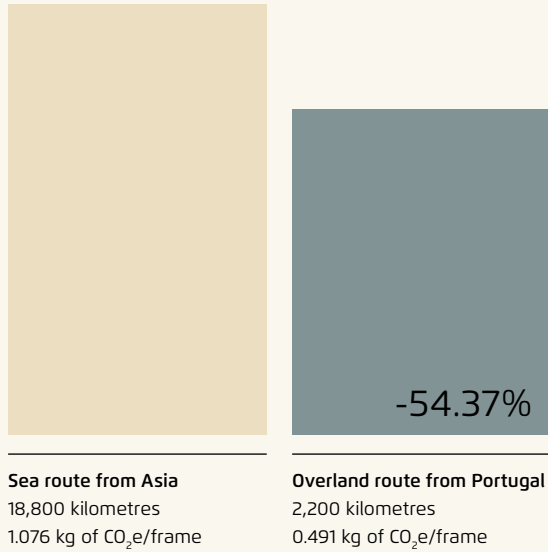
Distribution of CO<sub>2</sub>e emissions by category

2020/21	2021/22	2022/23	
<b>134.59</b>	<b>189.57</b>	<b>185.75</b>	<b>Scope 1: Direct emissions (t CO<sub>2</sub>e)</b>
134.59	189.57	185.75	Mobile combustion (fleet)
0 <sup>[1]</sup>	0 <sup>[1]</sup>	0 <sup>[1]</sup>	Stationary combustion (green natural gas)
<b>0</b>	<b>0</b>	<b>0</b>	<b>Scope 2: Indirect emissions from energy provided (t CO<sub>2</sub>e)</b>
0 <sup>[2]</sup>	0 <sup>[2]</sup>	0 <sup>[2]</sup>	Purchased green electricity
<b>7,612.23</b>	<b>6,796.51</b>	<b>4,362.83</b>	<b>Scope 3: Other indirect emissions (t CO<sub>2</sub>e)</b>
72.22 <sup>[3]</sup>	99.62 <sup>[3]</sup>	190.12 <sup>[3]</sup>	Fuel and energy-related emissions*
6,653.00 <sup>[4]</sup>	5,669.87 <sup>[4]</sup>	2,852.05 <sup>[4]</sup>	Transport and distribution
30.97	38.74	38.27	Waste produced
7.75	117.32	244.38	Business travel
843.50	865.01	1,030.63	Commuting
4.79	5.96	7.39	Digital working
<b>7,746.82</b>	<b>6,986.08</b>	<b>4,548.58</b>	<b>Total (t CO<sub>2</sub>e)</b>

\* "Fuel and energy-related emissions" measures the emissions for the electricity, gas and raw material transport infrastructure provided for our fleet fuels.

# Nearshoring and reshoring

## Transport emissions per frame



Our understanding of responsible business management also includes closely examining our supply chains and assessing the sustainability of how we procure components. We are striving to relocate our production facilities closer to our site in Mühlthal, which is also known as nearshoring and reshoring. This practice offers advantages such as speed, flexibility and ecological and economic gains. For these reasons, we want to further increase the percentage of components that we procure overland from Europe.

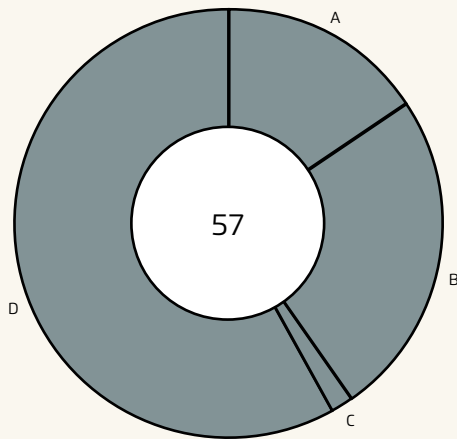
At the same time, we have maintained long-term and reliable partnerships based on a mutual understanding of quality with many manufacturers in Asia. We have been associated with these companies since our founding, and we are aware of the ecological disadvantages. When developing products, we need to take various – often conflicting – aspects into consideration, such as certification standards, safety and quality standards, aesthetic design, pricing and sustainable production.

Our focus is on choosing the best partners worldwide, while also ensuring a careful use of resources.

# Fleet

## Our fleet in detail

- A Electric  
9 cars
- B Hybrid  
14 cars
- C Petrol  
1 car
- D Diesel  
33 vans, transporters and trucks



We aim to fully convert our fleet to electric cars by 2026. They can be charged at our site in Mühlthal using electricity produced by our photo-voltaic system. One reason for this change-over date is that many of our cars are still tied into leasing agreements.

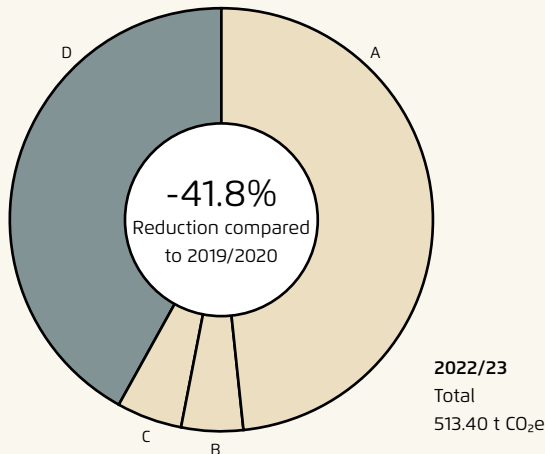
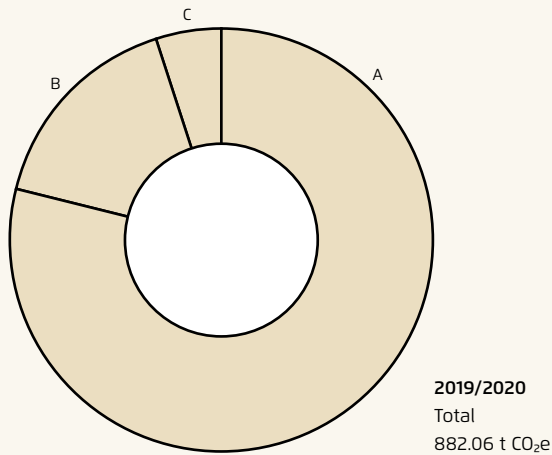
With this move, we are making long-term investments in eco-friendly mobility. Of the 57 vehicles we have in total, 9 of them are electric and 14 hybrid – a good 40% of our fleet is therefore already set up for e-mobility. The vans, transporters and trucks required for use at our facilities cannot currently be changed over to electric due to ongoing leasing agreements and a lack of alternative options.



# Product carbon footprint of the Load 75

## Emissions (CO<sub>2</sub>e)

- A Production
- B Inward delivery of goods
- C Disposal
- D Reduction compared to 2019/2020



The product carbon footprint (PCF) depicts a product's climate footprint across all stages of the value chain. This makes the product's impact on the climate transparent and comparable.

We calculated the PCF of our Load 75 cargo bike in the first two editions of our Responsibility Report. In so doing, it became clear that the highest emissions were generated during the production and supply stages, particularly in the production of metals and components.

We used this as a starting point to continue our work on the following points, with the aim of reducing the PCF of the Load 75:

- **Recycling**

In collaboration with our new supplier in Portugal, we adapted the Load 75's frame production so that it is now made of 35% recycled aluminium.

- **Nearshoring and reshoring**

We now source many of the model's components from within Europe – in addition to the frame, which is made in Portugal, this concerns the stands, steering linkage, handles and rims. This has enabled us to significantly reduce the emissions generated during transportation.

- **Avoiding air freight**

Whenever possible, we choose not to transport our products via air freight. This also translates into significantly reduced emissions in the PCF.

We were therefore able to significantly improve the PCF of our reference product, the Load 75, compared to the original calculation in the 2019/2020 business year (-41.80%).

# Waste management in the 2022/23 business year

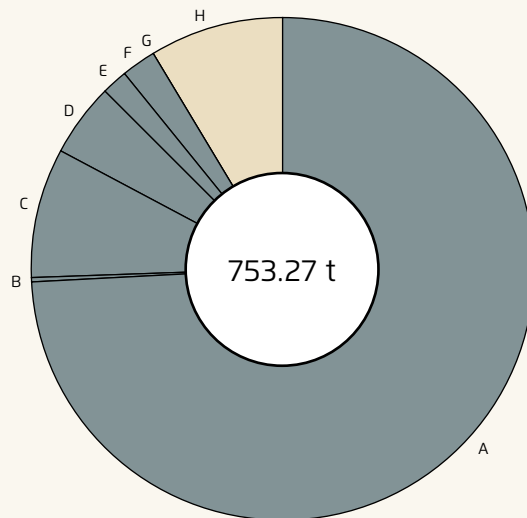
## Waste generated at the Riese & Müller site in Mühlthal in the 2022/23 business year

### Recyclable (91.47%)

- A Paper 559.76 t
- B Paper towels 2.68 t
- C Wood 62.76 t
- D Film 34.00 t
- E Aluminium 12.93 t
- F Mixed scrap 16.72 t
- G Food waste 0.16 t

### Non-recyclable (8.53%)

- H Residual waste 64.26 t



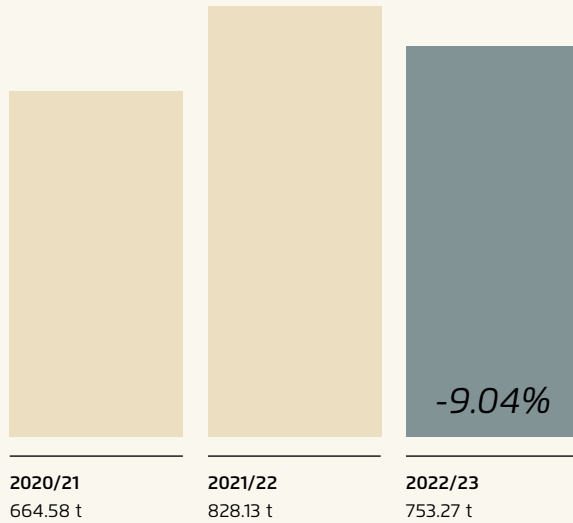
The majority of waste generated at our site in Mühlthal comes from packaging material from suppliers, especially cardboard, wood and film. Whenever possible, we reuse the materials. For example, we use bubble wrap to protect parts of finished bikes against damage, while cardboard is shredded and used as padding in shipments.

We systematically recycle what we cannot reuse – along with small amounts of mixed scrap and aluminium – thereby achieving a recycling rate of over 90%. This percentage remains constant regardless of the production figures, so our recycling is working.

We are striving to reduce the total amount of waste in the long term. We made progress here once again in 2022/23.

# Waste management compared

## Total waste generation



## Waste generation by category

2020/21	2021/22	2022/23	
<b>664.58 t</b>	<b>828.13 t</b>	<b>753.27 t</b>	<b>Total volume</b>
487.44 t #	610.92 t #	559.76 t	Paper
- #	- #	2.68 t	Paper towels
59.33 t	77.13 t	62.76 t	Wood
42.65 t	46.48 t	34.00 t	Film
7.44 t	9.70 t	12.93 t	Aluminium
9.01 t	10.50 t	16.72 t	Mixed scrap
-	-	0.16 t	Food waste
<b>(91.17%) 605.87 t</b>	<b>(91.14%) 754.73 t</b>	<b>(91.47%) 689.01 t</b>	<b>Recyclable</b>
58.71 t	73.40 t	64.26 t	Residual waste
<b>(8.83%) 58.71 t</b>	<b>(8.86%) 73.40 t</b>	<b>(8.53%) 64.26 t</b>	<b>Non-recyclable</b>

\* In previous years, paper and paper towels were not recorded separately

# Waste avoidance projects

100%

of supplier packaging is checked against zero waste criteria.

55

suggestions for improvement were passed on to our suppliers last year.

25

of which have already been implemented.

23

are currently being worked on.

Our commitment to waste prevention is a key element of our responsibility strategy. We operate zero-waste projects both at our site in Mühlthal and in cooperation with our suppliers. This enables us to set a clear example when it comes to the careful use of resources. Together with our employees and partners, we want to be proactive in making changes for the good of the environment. We launched the following initiatives in the previous business year:

#### Switching to higher-quality pallets with Triangle's

In collaboration with our Portuguese frame manufacturer, we changed the delivery of our frames so that they would arrive on higher-quality disposable pallets. This measure enabled us to prevent 3.7 tonnes of wood waste.

#### Scrap rubber recycling with Schwalbe

We collect worn or defective tubes and tires from our partner Schwalbe in a container and return them to the manufacturer. Schwalbe uses this material – almost half a tonne of it (418 kg) in the 2022/23 business year – to make new tubes and tires ([www.schwalbe.com/recycling-system](http://www.schwalbe.com/recycling-system)). This is one example of how the circular economy can work successfully.

#### Recycling our paper towels

We collect used paper towels from the dispensers next to the wash basins in the toilets. Our partner Tork uses the waste paper to produce recycled toilet paper. Using this recycling program, we recycled 2.68 tonnes of waste paper in the 2022/23 business year.

## Zero waste quality assurance check at Incoming Goods

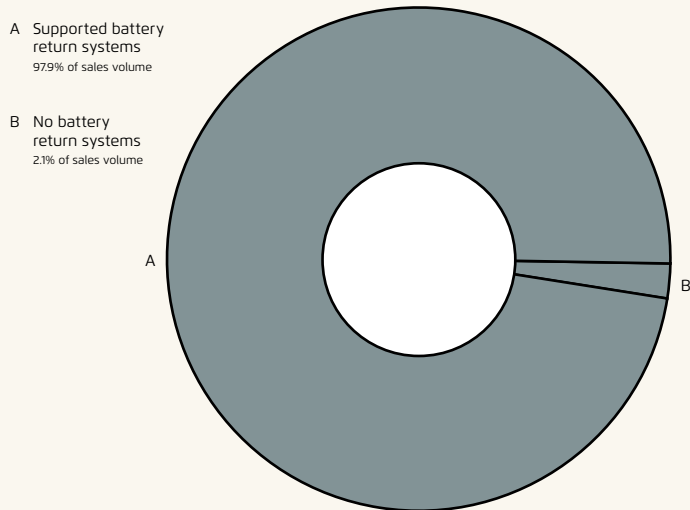
Since early 2022, we have been testing the quality of all packaging according to zero waste criteria.

- How good is the contents-to-outer packaging ratio?
- Is there any needless doubling-up of packaging?
- Is there an option to get rid of the padding in the box?



# Battery return

## Support for battery return systems in Germany and in our export countries



The batteries in our e-bikes are high-quality components that can largely be recycled at the end of their intended use time. This enables the precious raw materials contained in the batteries to be reused.

The prerequisite for this is a standardised, comprehensive and professional return of used batteries. Riese & Müller currently supports battery return systems in 17 countries, which equates to 97.7% of our sales volume. In Germany, for example, we participate in the GRS Foundation (Gemeinsames Rücknahmesystem Batterien – Common Battery Return System).

In the past business year, we have invested almost €280,000 in the collection, pick-up and recycling of batteries for this purpose. We are therefore making an important contribution to the environmentally friendly disposal and reuse of battery components.

# Reusable packaging in the 2022/23 business year

Cutting down on waste or, if possible, avoiding it entirely is important to us. To this end, we have initiated projects in collaboration with a few suppliers to significantly reduce waste volumes within our Incoming Goods. Given that, in many cases, these projects can also be implemented by other manufacturers at their sites, they offer a further potential for cutting down waste and the option for long-term industry-wide waste reduction.

In the past year, we have focused on our Outgoing Goods department, with the aim of generating less waste in retail by shipping our bikes and small parts using haulage firms or postal operators. In terms of the carbon footprint, emissions will initially be higher due to the manufacturing of the reusable polypropylene packaging. But this will pay off as the packaging is used and result in significantly reduced emissions after a few cycles.

Riese & Müller is one of the first e-bike manufacturers worldwide to use this kind of reusable packaging system for its e-bikes in series.

### BikeBox from circular logistics

We developed the BikeBox with circular logistics. The reusable box is made entirely of resilient, recyclable polypropylene and can, according to the manufacturer, be used in up to 30 shipping cycles. The BikeBox therefore causes significantly lower CO<sub>2</sub> emissions than disposable cardboard boxes and reduces the carbon footprint by up to 71%. Emissions are already cut by 8% after just the fifth use of the BikeBox. At the end of its lifetime, the polypropylene is fully returned to the manufacturing cycle.

The BikeBox is currently in the pilot phase in collaboration with dealership partners and is supposed to gradually replace up to 60% of shipments in cardboard boxes from 2024.

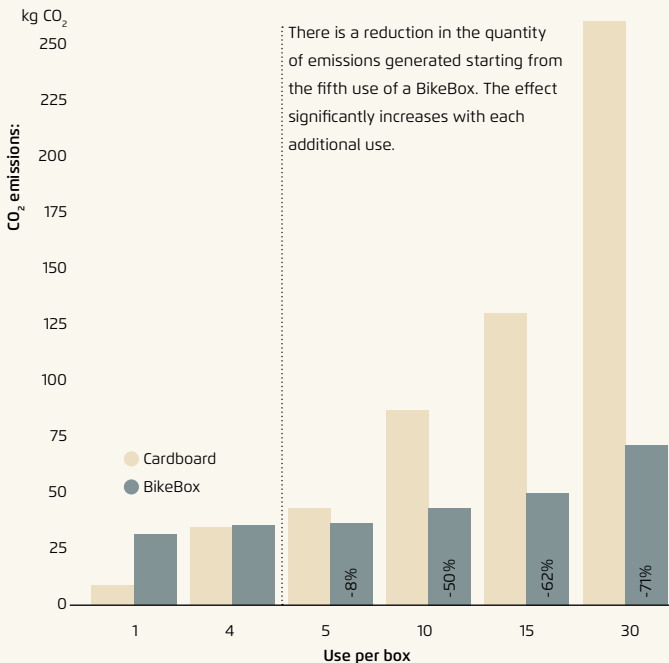
### Outlook: Cargo BikeBox

At the same time, we are also developing a prototype for the sustainable shipment of our cargo bikes. Similar to the two solutions already in use, we have set ourselves the following goals:

- **Reduction of the carbon footprint** through a high number of reuses (20–30 cycles). The carbon footprint generated through its production is expected to be offset after a few cycles.
- **100% recyclable.**  
As a rule, the proportion of recycled materials determines the cycle duration: the higher the recycled content, the fewer times it can be reused. It is important to find the optimum balance during the pilot phase.
- **Waste prevention, both in retail and at Riese & Müller.**  
Whenever large cardboard boxes arrive, they need to be temporarily stored and disposed of, which takes time and effort. This is why all parties benefit from a reusable solution.
- **Less time and effort and consistent quality for dealers.** When delivered to us, reusable packaging takes up the same space as a conventional box. Unlike cardboard, the reusable packaging is returned. In an ideal scenario, it can be folded and stacked on a Euro pallet.
- **Financial feasibility.** Even sustainable solutions need to make good business sense. The BikeBox's test phases and the reusable packaging we use to ship small parts demonstrate that this is possible.

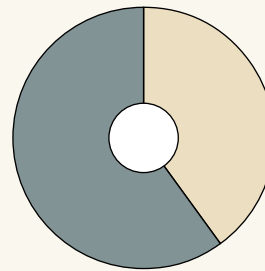
## BikeBox vs. cardboard

### CO<sub>2</sub> cut per use

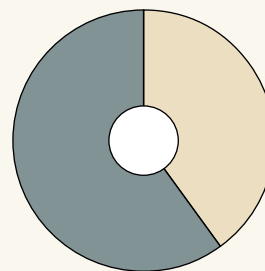


## Target waste prevention

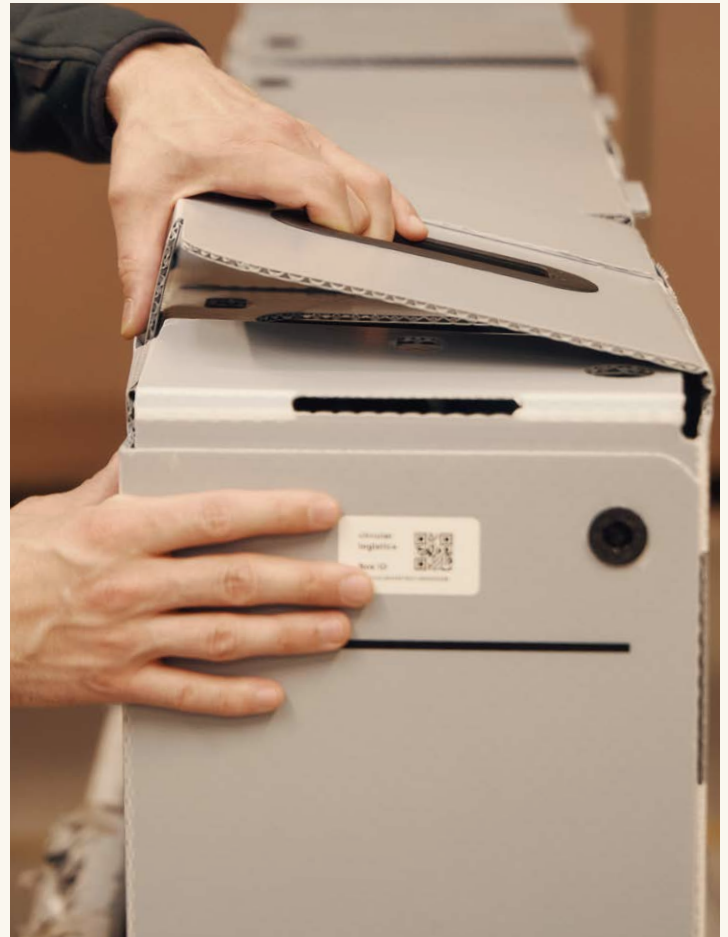
Total bikes shipped (overland) in Europe: 102,015 | 1,293 t  
Of which in Germany alone: 72,295 | 916 t



Target reduction by the end of 2024 in Europe: 60% | 1,293 t



Target reduction by the end of 2024 in Germany: 60% | 916 t



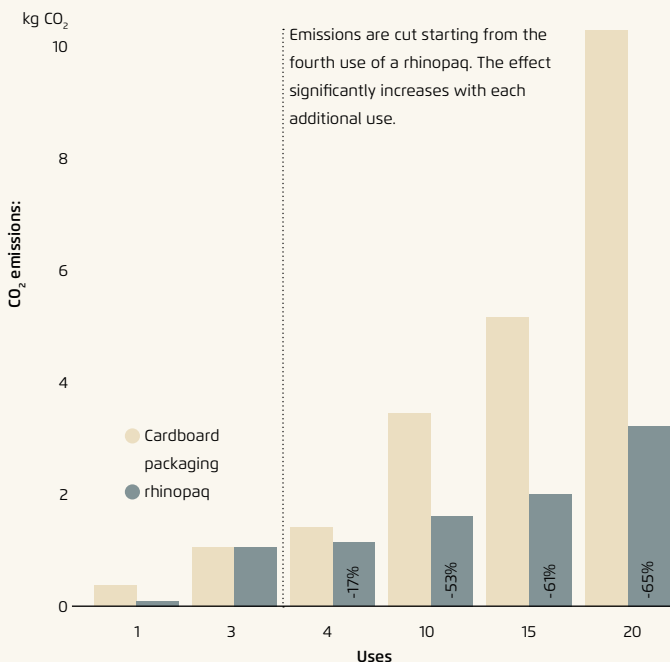
# Reusable packaging in the 2022/23 business year

## Folding reusable packaging from rhinopaq

Most providers expect reusable packaging to be returned individually. This practice is not suitable for our purposes because we sometimes ship very large items and large quantities. When we ship small parts, we rely on reusable packaging from rhinopaq. It is made of 60% recycled materials and can be folded so that it can be returned in large quantities and with minimal logistics. The packaging can be reused up to 20 times. This sustainable solution helps us to generate up to 65% lower CO<sub>2</sub> emissions when shipping small parts compared to standard cardboard boxes. Emissions are already cut by 17% after just the fourth use. Any damaged packaging is separated out, collected, and fed back into the manufacturing process once a certain quantity is reached.

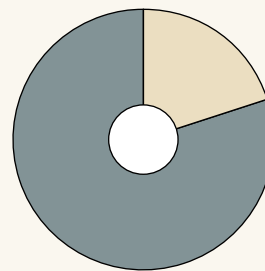
We are currently testing use in cooperation with dealers in a pilot phase for the rhinopaq reusable packaging. From 2024, the packaging is expected to gradually replace up to 83% of conventional envelopes and cardboard boxes.

## rhinopaq reusable packaging vs cardboard CO<sub>2</sub> cut per use



## Target waste prevention

Total small parts shipped (overland) in Europe: 80,000 | 24.0 t



Target reduction by the end of 2024 in **Germany**: 80% | 16.2 t



# Quality and environmental management

## ISO 9001

At national and international level, the ISO 9001 standard is the most widely used and recognised standard in quality management (QM). The extensive list of criteria includes customer expectations and ensuring legal conformity. The goals associated with this are sustainability and the improvement of processes, the reduction in subsequent improvements and the identification of risks and opportunities across all business operations.

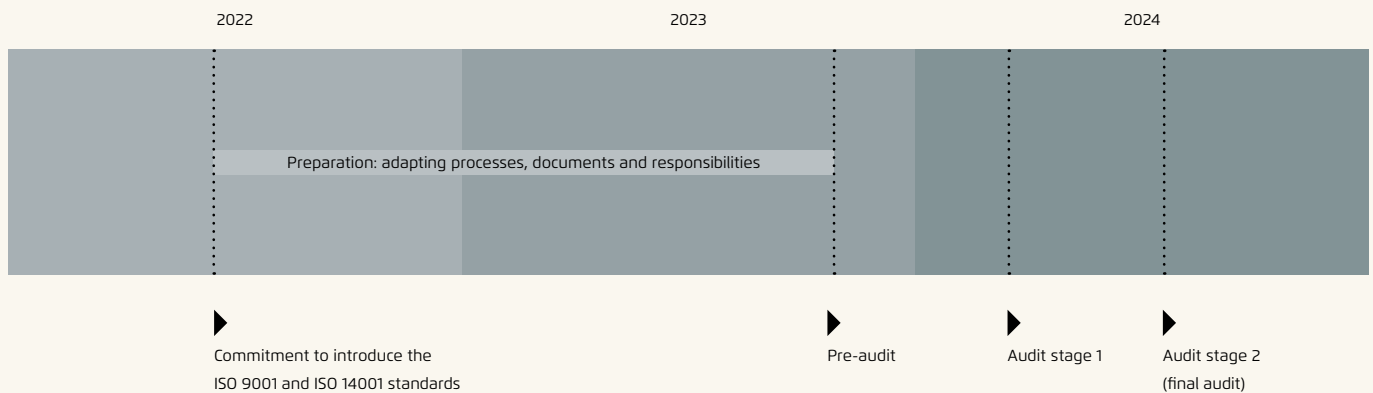
## ISO 14001

ISO 14001 is the international standard for a company's environmental management system. It requires all environmental aspects that are relevant in relation to the company's business operations to be taken into account and evaluated: energy consumption, waste management, handling of hazardous materials, plus training and the raising of awareness among employees. Re-audits by an independent inspection body will subsequently check whether the standards are being complied with. This external inspection is particularly important to us with regard to our resource conservation targets.

## Audit

TÜV Süd AG completed a pre-audit at Riese & Müller in October 2023. On a tour of the company, an auditor personally visited all relevant work areas and assessed the business processes. In a final discussion, he confirmed to us that we already meet the requirements of the standard. He suggested a few specific improvements. We have until the final audit in Q3 2024 to implement them. A TÜV Süd AG auditor conducted a stage-1 audit in Q1 2024.

It is important to us that we elevate our quality and environmental management at our site in Mühlthal to a standardised level that is traceable industry-wide. We are currently optimising our processes and systems so that we can be certified in accordance with two internationally recognised standards in Q3 2024: ISO 9001 for quality management and ISO 14001 for the environmental management system.



# The German Supply Chain Act

Our e-bikes consist of hundreds of components that we procure from suppliers from all over the world. In spite of this, we have the same standards across the whole supply chain: we want to be able to track the journey our parts make and ensure good and fair conditions with suppliers.

We have been continuously working on a transparent supply chain since 2020. In early 2023, the German government started obliging companies with more than 3,000 employees as per the German Supply Chain Act (LkSG) to implement the German version of the EU's Corporate Sustainability Due Diligence Directive. From 2024, this law also applies to companies with more than 1,000 employees. We are currently not affected by the new regulation. Nevertheless, due to our early focus on our supply chain, we have been able to incorporate numerous points from the new regulation into our operations in preparation.

The annual report requested by the German Federal Office for Economic Affairs and Export Control (BAFA) will be a major change. We need to demonstrate that we are exercising due diligence by answering a clearly structured [questionnaire](#) <sup>[4]</sup>.

### **What is Riese & Müller working on?**

We have been continuously working on a transparent supply chain since 2020.

This includes:

- A risk analysis of our more than 80 tier-1 suppliers
- Setting up a web-based whistleblower system (no grievances have been submitted to date)
- A [Declaration of Principles on the Observance of Human Rights](#) <sup>[5]</sup> (first published in German back in 2021)
- Code of Conduct
- Visual audits

### **Partnering with the Darmstadt University of Applied Sciences**

We have also partnered with the Darmstadt University of Applied Sciences (h\_da) to support the Risk Assessment and Sustainability Management (RASUM) study programme. By offering this study programme, which teaches both the technical and business management aspects, h\_da is meeting the corporate world's need for qualified employees who can incorporate sustainable development into a corporate strategy and manage its operational implementation.

During the course, students will use the example of Riese & Müller and other companies in the bicycle industry to investigate how the introduction of the German Supply Chain Act is affecting and changing companies.

## Supply chain: our partner Bosch AG

Bosch has been supplying motors and batteries for most Riese & Müller models for more than ten years, making the company an important strategic partner, including when it comes to taking responsibility for our joint business activities.

In 2022, the group conducted a survey on the CO<sub>2</sub> emissions of 1,260 key suppliers via the Carbon Disclosure Project (CDP) supplier platform, which provided more transparency in the supply chain. This is the largest survey that has ever been conducted via the portal.

The initial information request covered 70% of the Bosch Group's global purchasing volume. A total of 232 suppliers are part of the Science Based Targets initiative (SBTi) <sup>[6]</sup>, and 102 of them have verified emissions reduction targets. A company's CPD rating and SBTi status influences the group's purchasing decisions.

Having a transparent supply chain is very important to us – and Bosch AG's suppliers are also our upstream suppliers. Ascertaining the emissions these companies produce based on a recognised standard makes it easier for us to make the assessment.

### Sustainability through higher efficiency

We install the Performance Line SX motor in the Culture. At only about 2 kg, it is currently the most lightweight motor in the Bosch portfolio.

With a maximum power of 600 watts, the power-to-weight ratio has increased by around 45% compared to the Performance Line CX (approx. +0.9 kg).

In other words, the materials in the e-bike are used more efficiently and the carbon footprint is smaller.





# Compliance

Business operations must comply with the law and with international conventions and standards. We also define our own values and standards, which our employees, suppliers and business partners must adhere to when collaborating with us.

Compliance is the word we use to describe this approach, and, at Riese & Müller, this includes the following:

- **Workplace Code of Conduct**  
This set of rules is part of all employees' employment contracts and forms a simple, clear value base for a healthy working environment and a good working relationship. Alongside rules governing order and care in everyday work, the Workplace Code of Conduct also includes guidelines on tolerance and community.
- **Data protection**  
We particularly protect personal data, confidential communication and sensitive information. Apart from an internal team that looks after all data-protection-related issues, we also have an external Data Protection Officer to whom violations can be reported anonymously.
- **Anti-discrimination Office**  
Our principle is: zero tolerance of discrimination, bullying or violence. We respect all people, regardless of their origin, religion, sexual identity, gender or age, and whether or not they have a disability or chronic illness.
- **Code of Conduct**  
The Code of Conduct for our suppliers and business partners sets out our principles for dealing with people, the environment, business relationships, market behaviour, data, business secrets and company assets.
- **Responsibility Report**  
This annually published report documents the steps we are taking on our journey towards becoming the most sustainable company in the e-bike industry by 2025. Transparency is the priority.

- **Travel Policy**  
We are down-to-earth and act in a tolerant and sustainable manner on business trips. The same rules apply to anyone who travels. We are committed to the legal principles and our own values and uphold them uncompromisingly.
- **Antitrust law**  
As a company operating in Germany, we comply with German antitrust law and the EU antitrust law.
- **Whistleblower system**  
The whistleblower system offers our employees, customers, dealers and suppliers the opportunity to report compliance violations anonymously. To date, we have not received any compliance-related notifications through this channel.  
[r-m.de/whistleblower-system](https://r-m.de/whistleblower-system) or [compliance@r-m.de](mailto:compliance@r-m.de)

The Head of Legal is responsible for compliance at Riese & Müller.

# 2022/23 Sustainability Survey

Suppliers registered at sustainabill

98% (+1)

of the total purchased volume (tier 1)

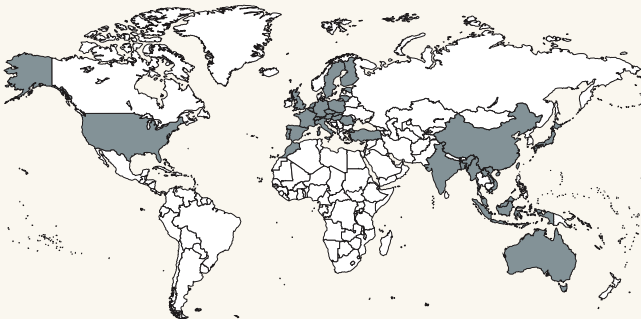
84 (+13)

Tier-1 suppliers

49 (-13)

Tier-2 suppliers

Countries of origin



We collaborate with the cloud platform sustainabill to map our global supply chain transparently and comprehensibly. This enables us to recognise what kind of practices our suppliers adhere to in reference to sustainability aspects, areas where there are still risks and areas where improvements are necessary. We take responsibility, ensure a transparent supply chain and, together with our suppliers, take action throughout the entire value chain.

The decrease in the number of tier-2 suppliers from 62 in the previous year to 49 this year is due to changes in the sustainabill platform, which no longer lists anonymous suppliers.

The survey is divided into four sections:

• **Company Management**

To what extent is sustainability anchored in the corporate strategy? The companies surveyed need to provide information here about whether they have already designated employees responsible or defined specific targets.

• **Climate Practices**

What climate change mitigation measures is the company undertaking? These measures can involve steps to reduce the company's own greenhouse gas emissions or CO<sub>2</sub> compensation through certified projects.

• **Social Practices**

How are working conditions at the company? The survey asks whether there is a strategy for compliance with minimum standards on human rights and occupational safety issues.

• **Sourcing Practices**

Does the company have a responsible procurement strategy? This section also asks how and where the company purchases parts or whether it conducts audits at its suppliers.

**Sustainable industry effects**

We have received unequivocally positive feedback from our partners on the sustainabill project. Some of the participating companies used the survey as a self-check and developed approaches they want to work on.

Other key players in the cycling industry have now also joined the sustainabill platform, including the tire producer Schwalbe. The company has, in turn, also invited its own suppliers to participate, and so the number of users continues to grow. This will have a positive impact on the entire industry. If a business ever provides information about social and environmental aspects, this can be easily shared with new sustainabill users, which increases transparency. This is the prerequisite for openness, trust and communication in an interconnected cycling industry.

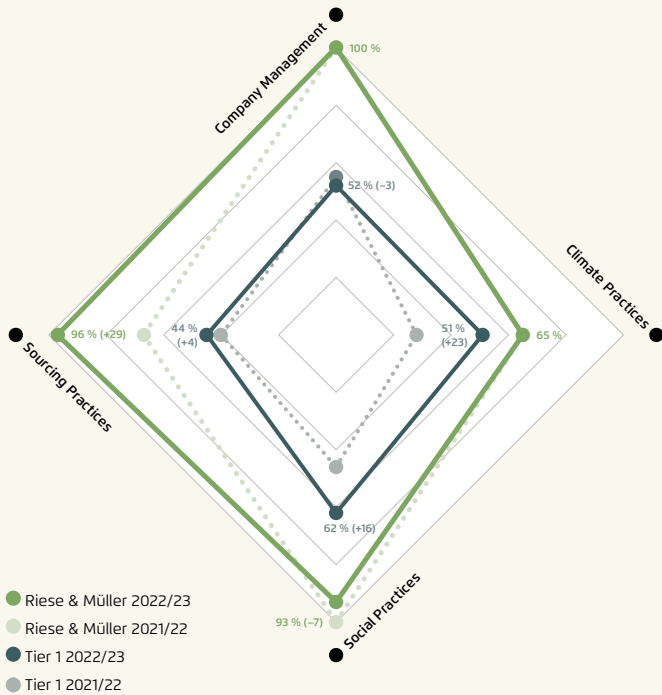
**About sustainabill**

sustainabill is a cloud-based platform on which suppliers provide information on their due diligence obligations and environmental impacts. The information is based on certificates and self-declarations from the suppliers.

The analysis can also include the upstream supply chain.

The objective: full transparency in terms of human rights, working conditions, environmental standards and product compliance.

## 2022/23 Sustainability Survey Riese & Müller – Tier 1



### The merger of sustainabil, VERSO and the Silvester Group

Through sustainabil's merger with the sustainability management company VERSO and the Silvester Group, the European software and consulting provider for sustainability management and reporting is focusing on the implementation of the German Supply Chain Act (LkSG) and the associated requirements.

#### This primarily includes the following services:

- Automatic analysis of country- and industry-specific risks
- Dashboard with an integrated risk score consisting of abstract and specific risk scores for each LkSG risk category
- The assignment of suitable measures
- The future expansion of the data collection to include additional areas and functions:
- Environmental protection
- The prevention of corruption
- Occupational health and safety
- The categorised recording of emissions
- The consideration of other EU regulatory requirements (CBAM, EUDR).

#### Extended tier-1 analysis

We have been encouraging numerous other suppliers to register with sustainabil since spring 2021. In addition, we have offered webinars to anyone interested so that they could prepare for working with the cloud platform and we put a lot of effort into personally raising awareness of the matter. Equal partnerships based on trust and joint action are important pillars in our vision for a fully transparent supply chain.

To date, 84 suppliers have signed up to the platform and completed the survey on sustainability performance. Once their data has been evaluated, the participating companies receive a resulting score. If any of them received a low score or if there were any ambiguities, we then sought to speak to individual suppliers.

Following on from this, we prepared a risk analysis from the results and the subsequent feedback discussion.

We consider it a major success that we are able to gain an insight into our suppliers' processes and working methods through the 84 registered companies (around 98% of our purchasing volume).

## Examples from the Sustainability Survey

### The evolution of Riese & Müller

The original score of 100% in Social Practices can no longer be compared to the value from 2023 (93%) because of the new data basis. The underlying performance remains unchanged.

Having other major manufacturers and brands join has significantly amplified the industry effect: the more companies from the bicycle industry that use the platform, the more of an overlap there will be with the upstream suppliers, which only have to take the survey once. This increases the industry's transparency as a whole.

### Examples of our suppliers

Overall, we have observed that our suppliers are becoming increasingly aware of sustainability, and more and more of them are incorporating it into their own business practices.

Many of our partners are implementing effective measures with the aim of reducing emissions – for example the construction of photovoltaic systems to generate electricity.

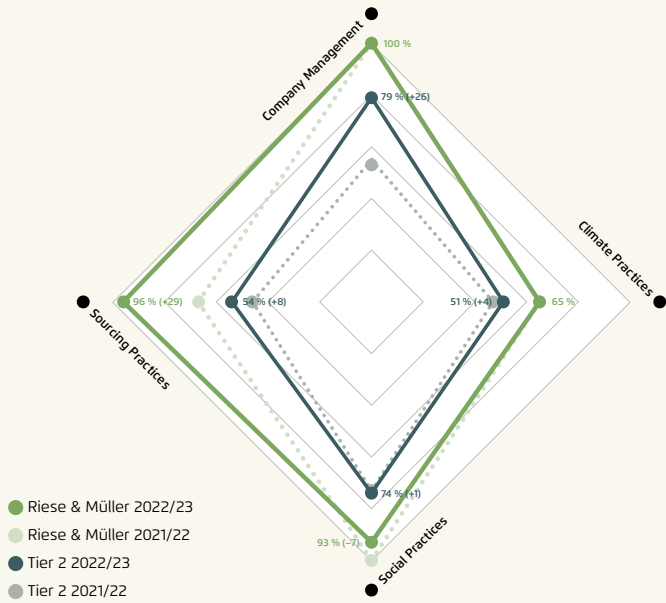
This has had a positive effect on the Climate Practices category (+23% compared to the previous year).

Tier 1 refers to direct suppliers in the supplier pyramid.

Tier 2 refers to upstream suppliers to our suppliers in the supplier pyramid.

# 2022/23 Sustainability Survey

## 2022/23 Sustainability Survey Riese & Müller – Tier 2



### Tier-2 analysis

We have been recording upstream suppliers ("tier 2") in the sustainability analysis since 2021/22. Analysing the upstream suppliers is important for all companies involved: with each additional sustainability user who invites their own upstream suppliers, all associated members receive new and valuable information about the value chain. This makes an important contribution to increased transparency and ultimately to responsible business practices in the cycling industry.

## Audits

We conduct different types of audits to obtain a general and comprehensive picture of our supplier companies.

Alongside this, we are currently preparing for certification in accordance with ISO 9001 and 14001 in Q3 2024. It is important to us that we elevate our quality and sustainability management to a level that is comparable and traceable industry-wide and internationally.

### Visual audits

We take every opportunity to gain insights into our suppliers' environmental and social conditions. We have therefore trained all our employees who regularly visit suppliers to pay attention to certain aspects during their visit to site and to record their personal impressions in a structured manner. They are also strongly encouraged to send positive feedback.

Our employees subsequently document these observations with grades in a "grade card" accompanied by additional written notes. The following aspects are evaluated:

- **Overall impression:** how is the cleanliness, the corporate culture you encountered or the way employees interact with each other and with guests? Is there openness and transparency?
  - **Environment:** how environmentally orientated is the company? Are there obvious environmental violations, such as wastewater drained into a river?
  - **Human rights:** are there any noticeable problems in the way employees are dealt with? Are there any signs of child labour, forced labour or unclear or unusual working arrangements?
  - **Health and safety at work:** do the employees have a good, safe workplace? Are the working conditions okay in terms of space, escape routes, noise and hazard sources?
  - **Bribery:** were inappropriate gifts or leisure activities offered, or were any signs of corruption observed?
- If there are any noticeable problems that cannot be tolerated, we will then immediately confront the supplier and ask for an explanation.

### Quality audit

Our Total Quality Management system also conducts comprehensive, systematic audits of our suppliers. This results in extensive reports that provide a detailed picture of local conditions.

Observations during audits can be divided into three basic areas:

- **Zero tolerance:** violations of human rights, dangerous disregard for occupational safety, or serious damage to the environment. Examples: child labour and forced labour, life-threatening conditions, abuse or corruption.

In the event of zero tolerance violations, we demand for the deficiency to be rectified immediately. The company concerned will also receive a mandatory catalogue of measures and will be audited again within a short period of time. We also reserve the right to terminate our collaboration and to initiate legal proceedings.

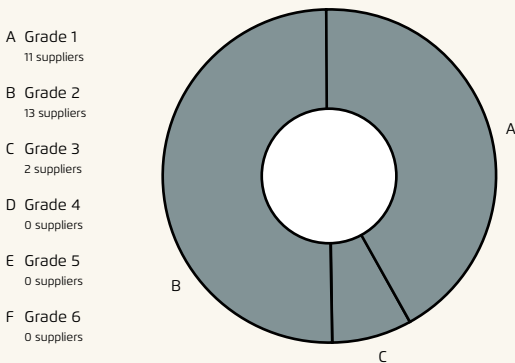
- **Problematic violation:** disregard for occupational safety and environmentally harmful conduct. Examples: exposure to extreme noise, insufficient air conditioning, protective clothing is not worn, waste materials are not properly disposed of.

The supplier will receive immediate feedback in the form of a catalogue of measures and will be tasked with resolving the problem in the short term. We will set a deadline and conduct a re-audit to check whether the infringement still persists.

- **Minor violation:** occasional shortcomings or shortcomings in isolation that pose a low risk to the safety of employees or the environment.

The supplier will receive feedback on our observations and will be tasked with resolving the problem in the medium term. In a re-audit, we check whether the situation has sustainably improved or whether there are still shortcomings.

## Results of visual audits



# Site

## 48,591 m<sup>2</sup>

Total usable floor space in 2022/23

## 70,000 m<sup>2</sup>

Land size

## 7

Buildings

## 5,351 m<sup>2</sup>

Photovoltaic (PV) system

## 794 kW

PV power

## 340

Total bike parking spaces

## 121

E-bike charging spots

The Riese & Müller Campus in Mühltal, near Darmstadt, comprises four buildings: the main building houses the majority of the Administration department and Production. One area is used as a warehouse.

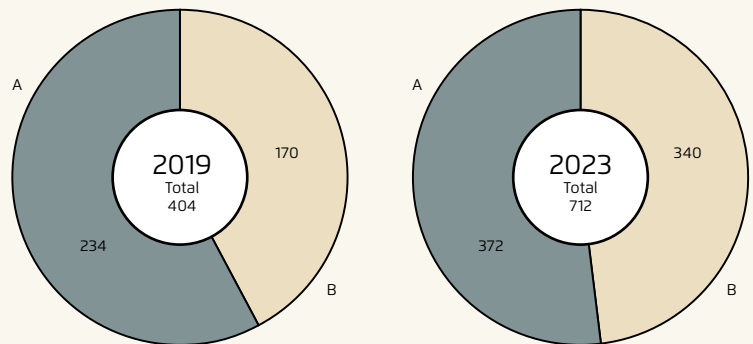
An additional wing of the building with around 100 office workstations and the factory outlet premises is connected to the main building via a pedestrian bridge. The service workshop and a separate high-bay warehouse are situated in two other buildings.

The "Häuser am Berg" (lit. Houses on the Hill) are nestled in the surrounding meadows with fruit trees. The new building, with its eco-friendly wood design, provides our employees with a 1,900 m<sup>2</sup> meeting space featuring bright, spacious rooms for all kinds of meetings and courses, plus an eatery with organic-quality meals and drinks, helping ensure a healthy diet, and snacks at break times.

### Parking space comparison

A Car parking

B Bike parking



# Häuser am Berg

Häuser am Berg is a passion project we implemented in 2023: it is a creative space for all, and its offering encourages all employees to come together and get involved.

It is welcoming, bright, open and close to nature, which is also reflected in the building's architectural concept. Designed as a wooden construction and built by a local architectural firm, it is nestled in the meadows with fruit trees on the outskirts of the Odenwald mountain range, with panoramic vistas of the surrounding uplands.

At lunchtime, our chefs dish up a different nutritious vegetarian dish every day at a subsidised price. There is also a selection of cakes and desserts, plus hot and cold drinks available from the Barista Bar. The seasonal ingredients are sourced from local farmers and certified by Bio, Demeter or Naturland.

Large meeting and seminar rooms for our workshops and events can be found in the adjacent area of the building. A separate entrance leads to the gym, where regular exercise classes are held at lunchtime by employees, for employees.



# Employees

It is very important to us that we provide space for the people at Riese & Müller and their individual needs and that we support and encourage each individual as best as possible. We want our employees to feel safe and at ease and we want them to enjoy their work and their personal and professional development.

With the Corner Café and the Häuser am Berg, we have set up central locations where all employees can meet, no matter their job role or the department in which they work. The diversity of personalities, perspectives, knowledge and experience in the company enriches us.

819

Employees

39 years

Average age

55

Nationalities

8

Trainees

4

Students undergoing integrated workplace training

9

Student interns



# Women at Riese & Müller

As it centres around manufacturing, the bicycle industry is traditionally a male-dominated environment. However, we are confident that a balanced mix leads to great collaboration and innovative work results. It is therefore our aim to attract women to our industry and to increase the percentage of women working in all departments, including in leadership roles. Many women at Riese & Müller occupy positions with major responsibilities – roles that are key to the company's success. They are role models who encourage female colleagues to take on specialist or managerial positions.

**Women at Riese & Müller are offered support through the following measures:**

- Equity and equality as a key part of the work in the People & Culture department
- Anti-discrimination Office as a point of contact for complaints and concerns
- Anti-discrimination workshops, which also raise awareness of sexual/gender identity discrimination
- Flexibility when it comes to maternity leave, parental leave, part-time work/reduced working hours and care requirements, particularly for women with families who are in leadership positions
- Workshops, networking and mentoring for women
- Communication workshops that reinforce respectful behaviour so that people of all gender identities feel at ease
- Consultation services for professional and private matters
- Free hygiene products (to relieve the financial burden for women and free the topic of menstrual hygiene from taboos)
- Exercise and fitness offerings in the lunch break (so that employees do not need to organise additional childcare in order to take time for themselves)
- Paternity leave is encouraged to support equality in childcare
- Trained in-house care advisors who can provide information on the support available if a family member requires care

*“Every aspect of equal treatment is extremely important to every member of Management at Riese & Müller. As a woman in the C-suite, I champion women's needs and an environment where 'feminine' approaches are appreciated and effective. With our commitment to the Women's Empowerment Principles, we are underlining our mindset that we support all people at our organisation, regardless of their gender, and that we in our community always treat each other with dignity and without biases.”*  
Christine Hoffmann, Chief People Officer, Riese & Müller

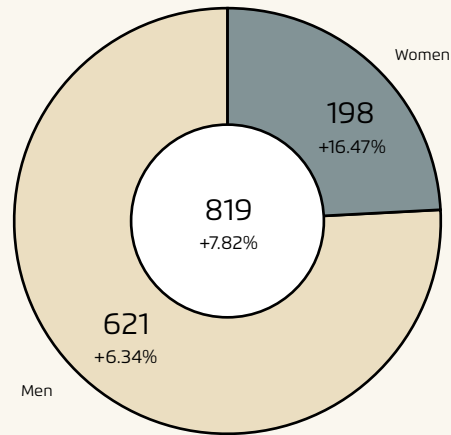
25%

Total percentage of women

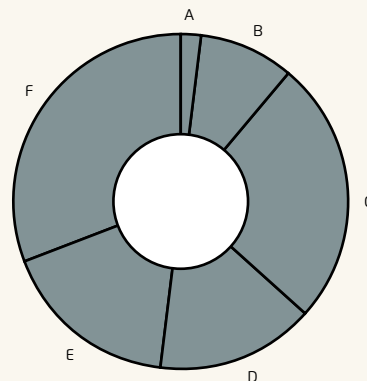
36%

Percentage of women in management

Ratio of men to women



Women in management positions



- A Management Board**  
9 employees in total  
22% women (2)
- B Leadership team**  
32 employees in total  
9% women (3)
- C Team leaders –**  
Aim for 2025: 50%  
25 employees in total  
48% women (12)  
42% of whom have a family (5)
- D Heads of unit**  
(Management in Production, Logistics and production-related areas) –  
Aim for 2025: 30%  
15 employees in total  
20% women (3)
- E Co-heads of unit**  
(roles that support management)  
17 employees in total  
18% women (3)
- F Specialised experts**  
30 employees in total  
20% women (6)  
50% of whom have a family (3)

## Best Sustainable Practice

In conversation with: Martin Bullermann, Environmental Planner



# Working with nature to build the North car park.

## Hello, Martin – what is the “North car park” project all about?

To put it very simply, it is about creating new and relocating existing parking spaces.

But it is not simply a car park as most people would imagine it. The term “car park” has people picturing a supermarket car park with a large, enclosed asphalt surface or the driveway outside a house. People initially find it hard to believe that you can build a car park in a natural space and keep it as natural as possible.

## So not all car parks are created equally?

No, absolutely not. There are so many ways for cars to use a space while also preserving the area as a habitat, for example for insects and microbes as well as a variety of plants. We are using gravel turf as the base for the North car park. It enables plants to grow, allowing a root

system to become established and permeate the soil so that water can trickle away effectively – unlike in a traditional paved car park. The water can also evaporate, which regulates the temperature. In heavy rainfall, the water is pooled in large, nearly natural hollows along the Modau River. They then act as biotopes. Gravel turf is a particularly well-suited subsurface here, because the area is intended for use as a company car park, meaning vehicles are not constantly driving on it – the area is only occupied during Riese & Müller’s operating hours. There are also longer periods when the car park will be vacant, for example at the weekends or during public holidays. Between the parking spaces, 62 native trees are being planted in addition to 155 shrubs along a flood control channel which runs between the car parking spaces and along the Modau.

As part of the development of the Riese & Müller Campus site, new parking facilities have been created to the north of the Campus. The North car park is connected to the Campus complex via a pedestrian bridge over the B426 and the Modau.

The bridge is part of public infrastructure in Mühlthal. From autumn 2024, it will be used by Riese & Müller employees as well as anyone wanting to access the cycle paths and hiking routes towards the Odenwald mountain range.

We held a competition and put the architectural design out to tender to ten planning offices. The design by Netzwerkarchitekten and Tragraum Ingenieure won.

### **Can you give us a brief insight into the planning process?**

The project was launched in mid-2021. The car park area was originally intended for agricultural use. There is a land-use plan for all plots of land, so we applied to repurpose the space. This also requires a development plan and planning permission for the specific construction of a car park. In accordance with the German Federal Nature Conservation Act (BNatSchG), any adverse interventions are being offset via compensation measures. Here, an algorithm calculates and assesses all natural factors to create a life cycle assessment. Essentially, this is a matter of offsetting any interventions in nature as close to the intervention as possible. Despite keeping the construction of the car park as natural as possible, the calculation showed a deficit. To offset this, a 6,000 m<sup>2</sup> meadow with fruit trees to the south-west of the Häuser am Berg on the Riese & Müller Campus was planted with about 50 additional fruit trees. This was implemented in consultation with the Friends of the Earth Germany (BUND) Mühlthal regional group.

### **Just under three years – that sounds like a long time to build a car park?**

It wasn't easy to make the concept understandable for all the parties involved. We were in contact with the local authorities and various interest groups, who all had their own ideas. For example, there was the suggestion to add a roof with solar panels to the car park, for energy generation. But the highly reflective modules on a steel construction do not align with the principles of "nature-oriented" construction, which took priority here: the panels change the climatic conditions for the flora and fauna – pretty much nothing grows beneath them, and they displace bats and insects. Once the car park's construction is complete, we need to give nature time to flourish within the new conditions.

#### **Martin Bullermann, Environmental and Infrastructure Planner**

Martin Bullermann has been supervising the construction and expansion of the Riese & Müller site in Mühlthal since January 2017. With his expertise, he helps to implement construction projects such as Häuser am Berg and the North car park. His strong sense of conviction makes him an excellent environmental advocate.

# Workshops and events

When planning our workshops and events, we focus on four areas of development to support continuing development at all levels.

## Knowledge & Skills

## Team & Collaboration

## Society & Responsibility

## Self & Attitude

### Anti-discrimination workshop

Staff whose roles involve spreading information are made aware of inequalities, how to handle privileges and communicative solutions in three training sessions.

### Training in peer-to-peer mental health support

Training for employees as initial points of contact for colleagues who are seeking help in challenging life situations (for example, on topics such as anxiety, worry, addiction, stress or grief).

### English book club

In this training offering aimed at all employees, a chosen book is discussed in English. The participants talk about the content with the aim of applying it to their own daily work and working on their English skills.

### Compliance training

This mandatory event for management provides information on approaches and rules within the framework of compliance. The aim is to follow the laws, guidelines and voluntary codes and to act in compliance with them.

### Feedback & communication

How can communication succeed? The workshop for all employees will teach techniques and methods to round off the individual's communication toolkit.

### Impact techniques

This workshop for managers teaches methods that incorporate metaphors and symbols for use in talks. The easy-to-implement techniques create "eureka moments" and have lasting effects.

### Team-building day in the Nieder-Ramstädter Diakonie workshops

On a tour of the Nieder-Ramstädter Diakonie charitable trust, employees get to know the people they work with at the Mühlthal workshop. We subsequently invited anyone who was interested to a return visit.

### Changing perspectives – insights into a life beyond "normality"

In the workshop for colleagues from our People & Culture department, an employee provides an account of her life as a wheelchair user and encourages people to break down barriers.

### Strengthening strengths

In this event for all employees, attendees explore their strengths together. The aim is to develop an awareness so that individuals are in an ideal position to contribute their own strengths.

### "Moving forward with Riese & Müller": understanding of development & workbook

The workshop explains Riese & Müller's understanding of development to interested employees and introduces how to work with the workbook. Attendees share their personal understanding of development and stories of their individual development.

# Industry and business associations

## Associations

Our aim is to give the cycling industry a single, powerful voice. This is why we get involved with associations and initiatives. In order to make progress with our concerns, we also rely on professional collaboration with representatives from society, policy-making and business.

Our mantra: anyone who really wants to change something needs to be active. We are therefore involved in working groups, we launch projects, and we take personal responsibility.

### **German Cyclist's Association (ADFC)**

#### **BIKEBRAINPOOL**

Bike Charta – the Corporate Social Responsibility Action Plan

### **German Federal Association of Sustainable Business (BNW)**

Ecological and social transformation of business

### **Business & Human Rights Centre**

Compliance with the German Supply Chain Act

### **Cycling Industries Europe (CIE)**

Sustainable Packaging Pledge

### **Entrepreneurs For Future**

Business enterprises for greater climate protection

### **Sustainable Business Initiative**

Initiative of the State of Hesse for the Implementation of Sustainable Measures in Companies

### **Material Compliance, Darmstadt University of Applied Sciences**

Material compliance in accordance with REACH

### **Sustainable together!**

Call to companies to come together for sustainability

### **Shift Cycling Culture**

Cycling Industry Climate Commitment

### **UN Global Compact / UN Women**

Women's Empowerment Principles (WEPs)

### **Future Bicycle e.V.**

### **Two-wheeled Industry Association e.V. (ZIV)**

Compliance with the Paris Agreement's climate targets



# Outlook 2024

In the coming year, we are going to work hard on our goals for the next five years. We will also work towards redefining sustainability – because it has not been sufficient to simply satisfy standards for a long time now. There will be new issues: how we can make our business greener, how we can generate success and growth without harming people or the environment: regenerative business, biodiversity and increasingly the question of healthy growth are becoming the focal points of our considerations. At the same time, what we have learned over the past few years is and remains important: building up networks, finding allies and bravely daring to take the next step forward. While also pursuing all the projects we have already started.





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