

# ENVIRONMENTAL PROTECTION

## How can Interroll contribute to a more sustainable future?

Through continuous development, Interroll offers innovative, high-quality solutions and supplies the market with sustainable products with an optimized service life. Globally distributed production sites with local sources of supply lead to lower CO<sub>2</sub> emissions throughout the supply chain to the customer. The drive for innovation also leads to modern and efficient machinery in Interroll's factories, which supports the continuous reduction of emissions and of resource waste.

## And specifically your department/area of responsibility?

As plant manager, my employees and I make consistent use of lean management methods to reduce our environmental impact. By continuously analyzing our production and assembly processes, we are always on the lookout for more efficient ways and solutions to help us save resources and reduce the need for additional machinery. We monitor the market and evaluate new technologies to see whether they can help us achieve our goal of working in a cost- and resource-optimized way. Every single employee is encouraged to contribute their ideas to the optimization process and will receive an additional bonus for identifying any significant potential savings.

## How is our company actively working to reduce its overall environmental impact across its operations?

In the 2023 fiscal year, we worked intensively on ways to reduce packaging waste for our customers; a solution has now been found and will be introduced in the next fiscal year, which will reduce the volume of packaging waste by 90%. Machine running times have been reduced by optimizing the programs and 16-year-old compressors have been replaced with more efficient models.

We offer our employees the opportunity to charge their e-bikes, which means that more employees cycle to work. During the next fiscal year, we are also planning to enable our employees to charge their electric cars.

**Christopher Schafhausen**, Plant Manager, Interroll Trommelmotoren GmbH

**Our management approach to environmental protection helps work toward achieving the following United Nations Sustainable Development Goals (SDGs):**



**SDG 6.3: Improve water quality, wastewater treatment and safe reuse**

Interroll contributes to the realization of SDG 6.3 by implementing innovative technologies for wastewater treatment as part a structured environmental management program. Efficient treatment systems can improve effluent quality and reduce pollutants. Closed loop systems already help to reduce water consumption. We make sure that effluents are discharged into the intended infrastructure in line with statutory requirements, and that all sanitary facilities meet the local statutory requirements.

**SDG 12.1: Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns**

**SDG 12.2: Sustainable management and efficient use of natural resources**

**SDG 12.4: Responsible management of chemicals and waste**

**SDG 12.5: Substantially reduce waste generation**

We contribute to the achievement of SDG 12 by integrating sustainable practices with respect to the use of natural resources and the avoidance of waste in our production processes. This includes introducing an ISO 14001-compliant environmental management system in our production units and providing an environmental footprint for every new product we develop. We collect our share of reusable scrap material and add this to the closed loop systems. We are reducing the additional waste created, in particular hazardous waste, and dispose of it responsibly – in accordance with local requirements.

**SDG 14.1: Reduce marine pollution**

Installing closed-loop wastewater treatment systems, where possible and relevant, minimizes the amount of pollutants released into rivers and oceans. Using recognized and efficient waste management systems reduces the release of plastics and other harmful materials into the sea. Employing more environmentally friendly packaging and supporting recycling initiatives also helps to reduce plastic waste.

**CONTEXT**

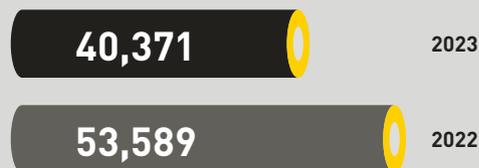
GRI 3-3

Environmental protection is one of the core societal concerns of our time, as the demands of a growing global population for quality of life and living space overwhelm the earth's natural resources and ecosystems. The material topic "Environmental protection" includes the key aspects "use of materials, water consumption and waste," which have a relevant environmental impact. We have included water consumption issues based on external advice. Supply chain aspects are addressed under the material topic "Sustainable procurement."

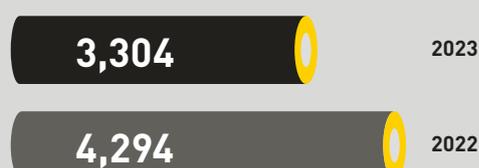
At Interroll, our aim is to supply customers and users with products that are developed, manufactured and used with a focus on environmental protection. We are well aware of our responsibility within the supply chain when selecting materials. Despite the challenges on the intralogistics market, in 2023, Interroll processed 40,371 t of steel (2022: 53,589 t), 1,323 t of other alloys (2022: 1,752 t), 3,304 t of polymers (2022: 4,294 t) and 603 t of electrical/electronic components, such as motors, control units and printed circuit boards (2022: 928 t).

**MATERIALS USED IN METRIC TONS**

**STEEL**



**POLYMERS**



Avoiding waste is another significant factor that affects production waste within our sphere of influence, the period of use of our products in customer applications and finally the end of product life. Interroll creates approximately 3,820 t of production waste per year across the Group (2022: 4,377 t), primarily waste metal, plastic and wood – the latter mainly from shipping our products. The recycling rate for metals at the end of a plant’s life is high and cannot be compared with the recycling rates given in household waste statistics. Scrap metal and plastic generated in manufacturing is generally sold and sent for recycling. Interroll has little information on users’ end-of-life scenarios, as our customers – the system integrators – have a direct contractual relationship with the plant operators.

The design of our products greatly influences our environmental performance and the corresponding impact. Product quality, durability and the ability to exchange components flexibly are designed to result in a high level of resource efficiency in the materials used. The modular nature of our solutions means we can replace and repair individual components. This is something we consider right from the product development stage.

We do what we can to reduce the negative environmental impact of our products by sourcing components responsibly, by considering ways to leverage the circular economy and by implementing resource-efficient manufacturing processes. Another increasingly relevant environmental aspect of our systems is to keep their operation as quiet as possible. It is not uncommon for our plant operators’ sites to be subject to noise restrictions, and we factor in appropriate solutions to address this as early as the product development phase.

### CONCEPT AND GOALS

GRI 3-3  
GRI 2-25

We have committed us in our environmental protection policy to using natural resources and the biosphere responsibly. Our long-term strategic goals are based on preventing – or at least reducing – adverse environmental impacts along the entire Interroll value chain.

964 CO

Environmental protection is one of the core social concerns and corporate obligations of our time. At Interroll, our aim is to supply customers and users with products that are developed and manufactured and can be used, with a focus on all relevant aspects of environmental protection.

We want to improve the environmental footprint along our entire value chain, which we are doing by implementing an ISO 14001-certified environmental management system at all production units by 2027. We are also basing the design of our products on resource effi-

ciency and ensuring the procurement and use of materials and components are environmentally responsible. We protect the environment by reducing scrap and waste in production. We are continuously reducing the amount of scrap in steel and plastic processing, and have set the target of cutting production-related residual waste by 50% per share of sales by 2030 (from base year 2022). We are also increasing our use of recycled and renewable production materials by 1.5% per year.

Focusing on the circular economy is also of paramount importance to us. We are transparent about the environmental impacts of our products by preparing life cycle assessments (LCAs). Our goal is to present an environmental footprint for every new product we develop from 2028 onward.

The packaging of our products is another environmentally relevant factor. We are constantly working on optimizing packaging and reducing its environmental impact. Our goal is to fully replace plastic packaging with environmentally friendly alternatives by 2030. We also plan to optimize all packaging in terms of volume, materials and transport efficiency, including wood, paper and cardboard.

We avoid the adverse environmental impacts of water consumption and wastewater disposal, and are therefore seeking to reduce water intensity per share of sales.

As a market leader, we not only assume responsibility for our products and services, but also seek to contribute to societal well-being, both globally and locally.

Qualitative and quantitative goals and deadlines for their achievement have been defined for the entire Interroll Group. We will be developing specific implementation plans for each Interroll site to achieve the goals based on their individual situation.

### Governance and compliance

GRI 2-9

The Board of Directors and Group Management are also responsible for considering and implementing the requirements of environmental protection in the overall corporate strategy. They ensure that the responsibilities for setting goals, delivering resources, taking action and conducting reviews are clearly defined. The Board of Directors receives regular information on the “Environmental protection” topic and an assessment of the associated risks from Group Management. The Board of Directors thereby ensures that it possesses the requisite knowledge to evaluate these aspects. The CEO oversees environmental protection within Interroll’s organizational structure.

Environmental risks are assessed as part of the annual risk inventory and, together with the associated reporting, they lie within the CFO's area of responsibility. The Board of Directors submits environmental reports in accordance with Article 964b CO to the annual general meeting for approval (see page 132).

Adherence to this policy and local statutory obligations relating to environmental protection is regularly reviewed by Group Management and Corporate Compliance.

The responsible parties for operational implementation and performance are: the Chief Operations Officer (COO) for action concerning production sites and the upstream supply chain, and the Chief Technology Officer (CTO) for product development (product innovation and environmental aspects of products)

	Targets	KPIs	Unit	2023	2022	Date
964 CO	An environmental LCA is available for every new product development	Number of LCAs	Number	0	0	2028
	Reduction of scrap in our production processes	Percentage of scrap in processed steel	%	6.8	5.9	Continuously
		Percentage of scrap in processed plastics	%	2.5	2.3	Continuously
GRI 301-2	Increase the use of recycled and renewable production materials by 1.5% per year	Percentage of recycled materials (currently measurable: plastics)	%	0.5	0.5	Continuously
	Complete replacement of plastic packaging material with environmentally friendly alternatives	Packaging material (plastics) intensity	t / CHF million sales	0.2	0.1	2030
	All packaging is optimized in terms of volume, materials and transport efficiency	Packaging material (wood, paper, cardboard) intensity	t / CHF million sales	13.7	14.6	2030
	Reduction of production-related waste volumes by 50% based on revenue (base year 2022)	Production-related waste intensity	t / CHF million sales	6.9	6.5	2030
	Elimination of all hazardous waste	Volume of hazardous waste	t	59	70	2030
	Reduction in water intensity per share of sales	Water intensity	m <sup>3</sup> / CHF million sales	62.2	52.3	Continuously
	All manufacturing units are ISO 14001 certified	Number of manufacturing units that are ISO 14001 certified	Number	1	0	2027
	Donations to environmental protection projects	Total of donations to environmental protection projects	CHF	n/a	n/a	Annually

## OPPORTUNITIES AND RISKS OF ENVIRONMENTAL PROTECTION

GRI 3-3  
GRI 2-25

The environmental risk analysis is an important component of the statutory reporting requirements to be met by Interroll Holding AG – not only in Switzerland.

964 CO

The focus is on environmental protection, while also addressing human rights, labor and social standards and the fight against corruption.

The risk analysis helps us to identify and evaluate the potential impact that often relates to multiple sustainability areas. The identified risks can be categorized as follows based on the three defined risk classes:

### ESG risk category “high”

- Loss of customers and market share: new product development does not adequately address environmental aspects

### ESG risk category “medium”

- Reputational risk: failure to live up to voluntary commitment to societal responsibility
- Loss of customers: failure to achieve the expected reduction in the environmental footprint for the user
- Investors: loss of leadership role in innovation and technology
- Supply chain and production risk: loss of suppliers due to non-compliance with environmental requirements
- Investors: deterioration of Interroll’s environment rating
- Rating: inadequate recording of water consumption and waste management
- Failure to achieve environmental targets

### ESG risk category “low”

- Legal compliance: non-compliance with REACH requirements
- Reputational risk: failure to achieve planned increase in resource efficiency

We present the specific measures taken to manage environmental protection in the following.

## STATUS, MEASURES, RESULTS

### Use of materials

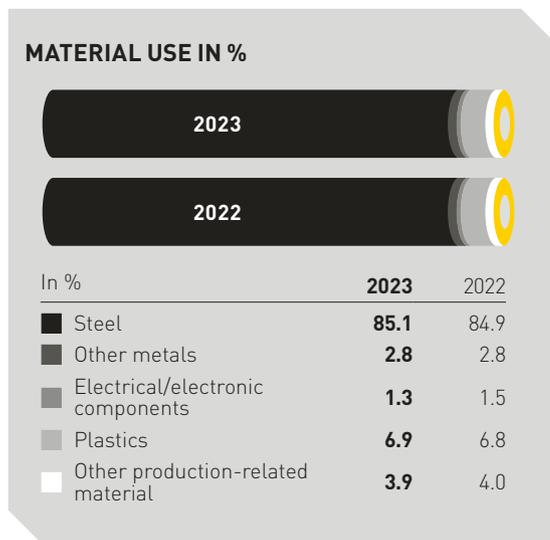
GRI 301-1

964 CO

With 47,451 t of materials processed in the period under review (2022: 63,125 t), our use of natural resources in production is a material aspect of sustainable corporate development. Steel, polymers, other alloys and electronic components top the list of materials used. These all involve energy-intensive raw material extraction and processing, and as such a substantial proportion of the environmental impact can be attributed to their carbon footprint in the supply chain. We have the latest emissions data in this area for 2022 (base year) and 2023, which is presented in detail in the section on the “Climate protection” material topic.

Use of materials	Unit	2023	2022
Steel	metric tons	40,371	53,589
Other alloys	metric tons	1,323	1,752
Polymers	metric tons	3,304	4,294
Electrical/electronic components	metric tons	603	928
Other production-related materials	metric tons	1,834	2,539
Recycled polymers	metric tons	17	22
<b>Total</b>	<b>metric tons</b>	<b>47,451</b>	<b>63,125</b>
<b>Packaging</b>			
Plastic packaging	metric tons	86 t	96 t
Wood packaging	metric tons	7,005 t	8,935 t
Cardboard packaging	metric tons	624 t	796 t
<b>Administration</b>			
Paper/cardboard	metric tons	37 t	48 t

Interroll complies with all statutory and regulatory environmental requirements. All of the materials used comply with the requirements of the EU Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).



GRI 301-2

The use of recycled materials is also gaining in significance as efforts continue to achieve a circular economy. Past pilot projects have not yet produced the desired quality of recycle admixture needed for our products to be used in the long term. The proportion of recycled material in plastics is therefore still low. We have to weigh up the use of recycle and the potential increase in expense due to shorter replacement cycles against the impact on the environment. However, this may not adversely impact customer satisfaction.

### Packaging and packaging materials

Our goal is to reduce the amount of plastic packaging. We already record the volume of all packaging materials, and can report that Interroll used 7,005 t of wood packaging in 2023 (2022: 8,935 t), which corresponds to a wood packaging intensity in relation to sales of 12.6 t per CHF million sales (2022: 13.4 t per CHF million sales). The equivalent for paper and cardboard packaging was 624 t in relation to sales of 1.1 t per CHF million sales (2022: 1.2 t per CHF million of sales). The share of plastic packaging currently stands at 0.15 t per CHF million sales (2022: 0.14 t per CHF million of sales), and we want to reduce that figure by 10% per year.

We started optimizing packaging at the Hückelhoven-Baal site in Germany in 2023, where the industrial drum motors they manufacture had previously been secured in wooden shipping crates with a two-component foam system. This foam is made of diisocyanates and is considered a hazardous substance and a potential carcinogen in its non-combined form. After the two components are mixed, the foam is no longer considered harmful. We will be gradually transitioning the packaging from February 2024 onward, and will therefore largely be able to dispense with the foam. From that point on, the industrial drum motors will be switched over step by step to a recycled cardboard framework, secured with shrink wrap containing 80 percent recycled materials, and shipped in wooden crates. This will save some 18 t of plastic foam.

Packaging material	Unit	2023	2022
Corrugated cardboard boxes	metric tons	199	254
Paper packaging	metric tons	425	543
Pallets/wooden crates	metric tons	481	613
Wood packaging	metric tons	6,524	8,322
Plastic packaging	metric tons	86	96
<b>All packaging material</b>	<b>trees</b>	<b>14,862</b>	<b>18,932</b>

The wood used for packaging purposes in the form of pallets, crates, boxes and packing cases, along with paper and cardboard, was equivalent to 14,862 trees in 2023 (2022: 18,932), based on trees 10 m high with a 30 cm diameter.

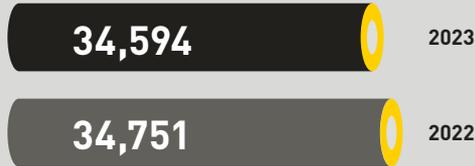
**Water and effluents**

GRI 303-5

Our water consumption of around 34,594 m<sup>3</sup> (2022: 34,751 m<sup>3</sup>) and low environmental impact in terms of effluents are not a significant consideration in the environmental context, in our view. We use water from the public supply networks without accessing our own wells. At Interroll, water is essentially used in the sanitary facilities and kitchens for our employees. Moreover, we use water in the production area only in closed cycles with secured disposal paths.

We are unable to provide much information regarding the volume of effluents, also relating to rainwater at our production and administration sites, as we do not have access to the relevant data. The effluent produced is treated in line with local regulations. The effort required to determine the solid content of effluent seems excessively high.

**WATER CONSUMPTION IN M<sup>3</sup>**



**Waste generation and its impact**

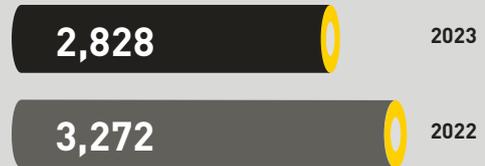
GRI 306-1  
GRI 306-2  
GRI 306-3  
GRI 306-4  
GRI 306-5

A total of 3,820 t of production waste was created throughout the Group in the period under review (2022: 4,337 t). Significant quantities of this consisted of scrap metal, at 2,828 t (2022: 3,272 t), primarily comprising metal offcuts, plastics from injection molding at 117 t (2022: 138 t), other waste at 817 t (2022: 896 t) and hazardous waste at 59 t (2022: 70 t). Since structured waste management is still under development, no valid data can yet be disclosed in relation to the waste mix on site. The recyclables are generally sold or transferred to a specialist waste handler, and thus the materials are reused.

By converting the packaging in Hückelhoven-Baal and replacing the two-component foam, we will avoid around 18 metric tons of plastic waste for our customers in future.

Waste disposal is the responsibility of the individual sites in compliance with local laws. We are not aware of any violations. The volume of Group-wide non-harmful waste in 2023 was 817 t (2022: 896 t), and hazardous waste was 59 t (2022:70 t), largely comprising motor oils, lubricants, batteries and waste materials from an in-house powder coating system, which were properly disposed of.

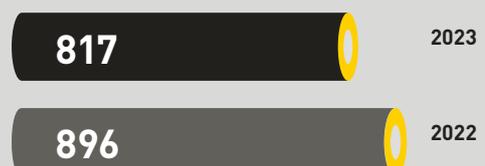
**STEEL SCRAP IN METRIC TONS**



**PLASTIC SCRAP IN METRIC TONS**



**WASTE IN METRIC TONS**



**HAZARDOUS WASTE IN METRIC TONS**



**Sealed surfaces**

Interroll companies are located at 30 sites around the world, including production plants, both owned and rented, and rented office space.

In 2023, the total sealed surface area of these Interroll sites (production/administration buildings, parking lots, access roads, in-plant roads and rented offices) was approximately 40 hectares or 56 soccer fields.