



# Sustainability Booklet 2024

Connecting the value chain:  
how sustainability runs through everything we do.

[Download the full Sustainability Report](#)

# CEO letter

**Dear all,**

At RDM Group, we aim to create value for customers, consumers, and society by reducing the environmental impact of our manufacturing processes.

In 2024, our focus on sustainability, operational excellence, and collaboration helped us navigate a difficult period for the cartonboard industry. We advanced all three goals of our Sustainability-Linked Bond, fundamental pillars for strengthening our financial performance.

We're improving operational efficiency and resource use to minimize our footprint. Our collaboration across the value chain is enhancing circularity and the use of recycled materials.

Sustainability, partnerships, and innovation go hand-in-hand at RDM Group. And it is thanks to our customers and brand owners – and their quest to include more sustainable and recyclable material in their product packaging – that we are able to bring value to the entire value chain.

Sustainability must embrace the entire value chain and we are at the heart of it.



**Michele Bianchi**  
RDM Group CEO

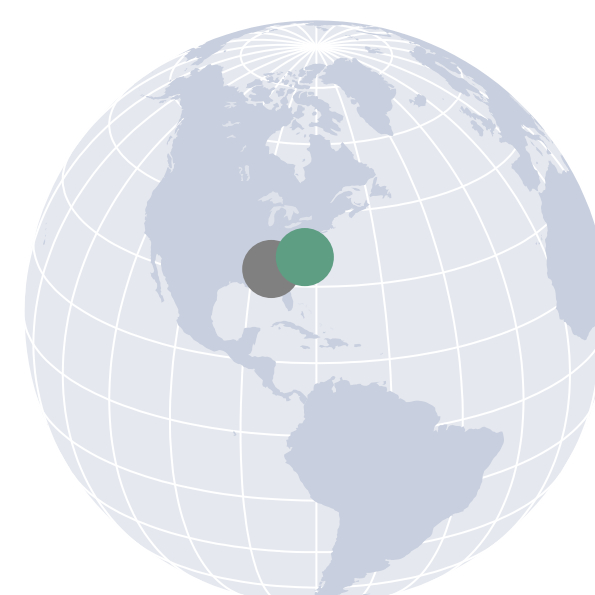


# About us

**RDM Group is the European leading packaging board producer. The Group develops cartonboard solutions based on recycled fibers that support circular economy.**

For us, sustainability is one of the core value on which our business model is built. Our main business areas are White-Lined Chipboard (WLC) and Solid Board. WLC includes GD/GT, Liner and PE-coated cartonboard.

As of 2024, the Group employs 2.133 people at 9 board mills, 4 sheeting centers, and various office locations in Europe, North America, and Asia. RDM Group has been a private company under the Apollo Fund's ownership since 2021.



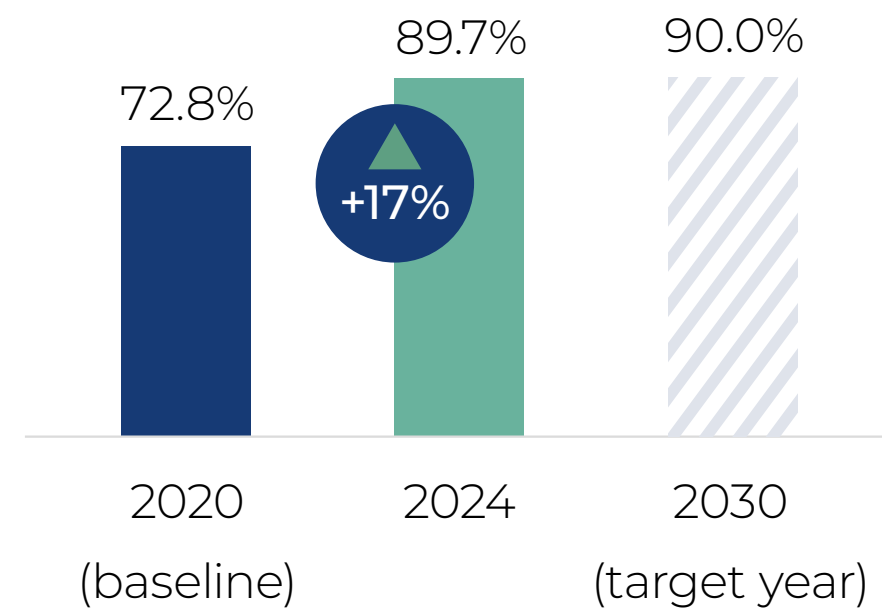
- Sales offices
- Board mills
- Sheeting centers
- Mill being closed down



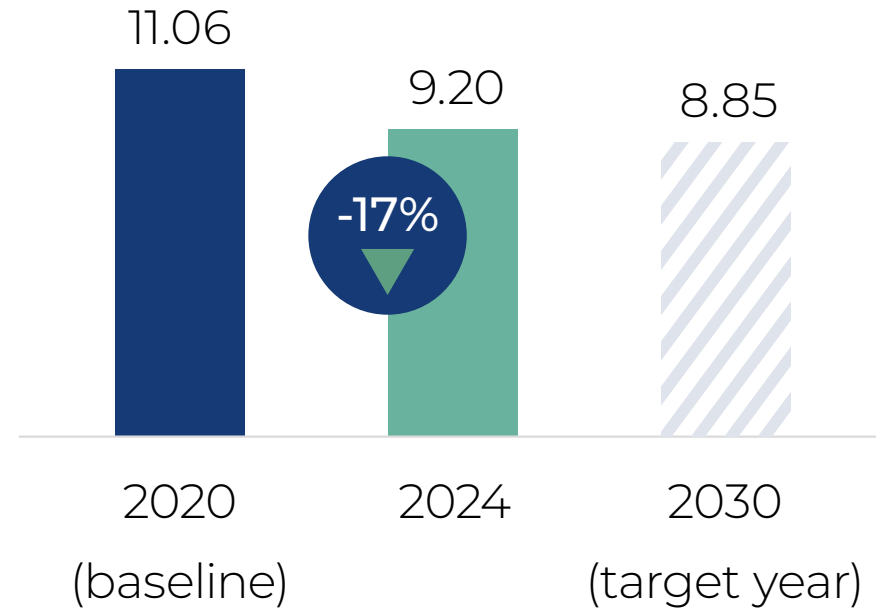
# Highlights 2024

## SUSTAINABILITY PLAN KPIs

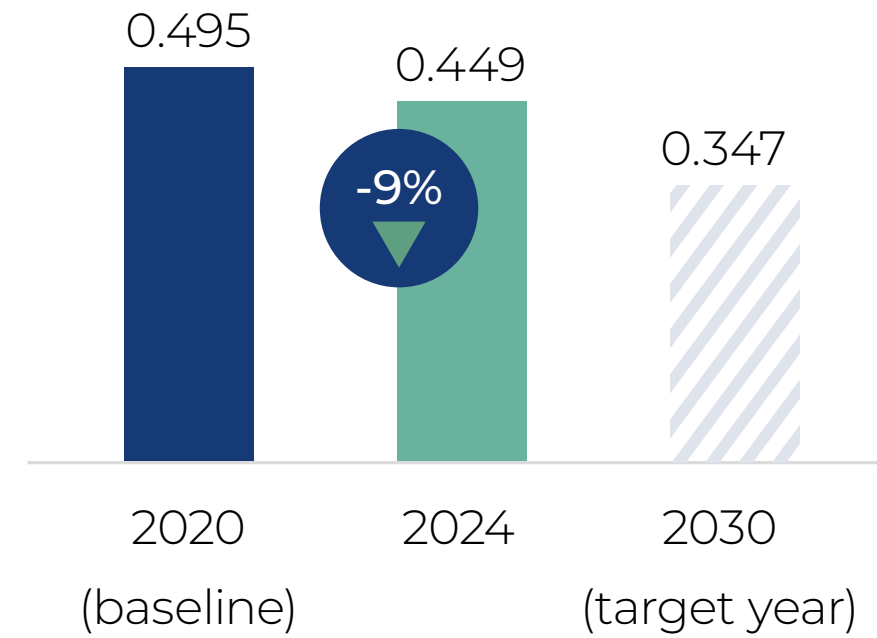
Waste sent for recovery increase (%)



Wastewater discharge intensity reduction (m<sup>3</sup>/ton)



Carbon intensity reduction (tCO<sub>2</sub>e/t)



## OUR NUMBERS

**€787**  
million  
in revenue

**1,118**  
kilotons  
of cartonboard  
(net salable production)

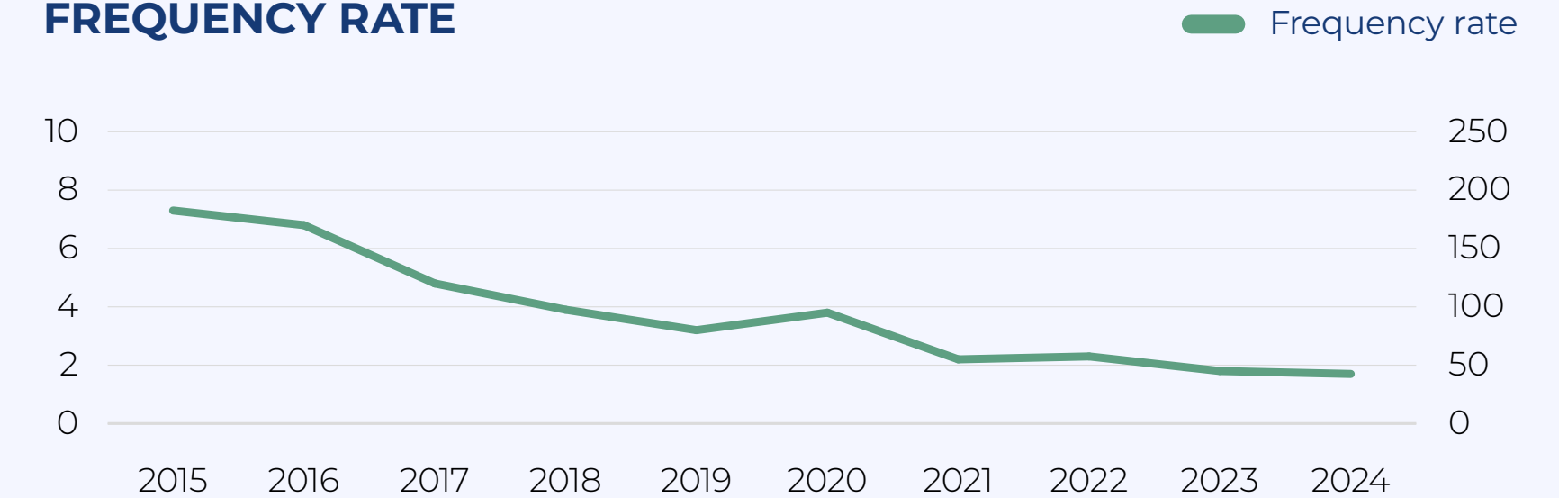
**2.133**  
direct  
employees  
at RDM Group



**42%** electricity purchased that is from renewable sources

## SAFETY

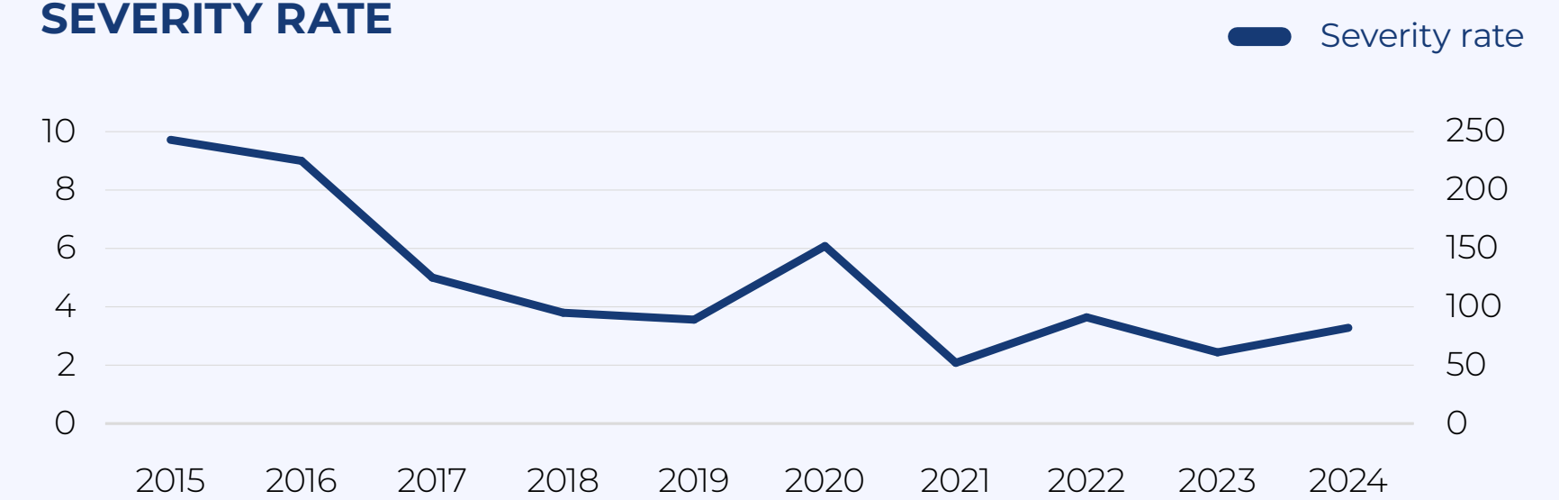
### FREQUENCY RATE



FR = number of injuries × 200,000/hours worked

SR = lost days × 200,000/hours worked

### SEVERITY RATE





# Raw materials



## 85%

renewable materials  
of total materials  
used



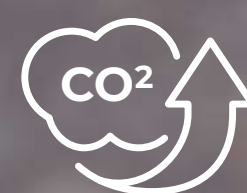
## 96%

paper for recycling of  
the total fiber-based  
materials used



## 100%

of virgin fibers used are  
FSC® / PEFC certified or  
FSC® controlled wood



## 12%

of biogenic  
direct emissions



## 1,148 kton

of paper recycled in 2024  
(967 kton in 2023)

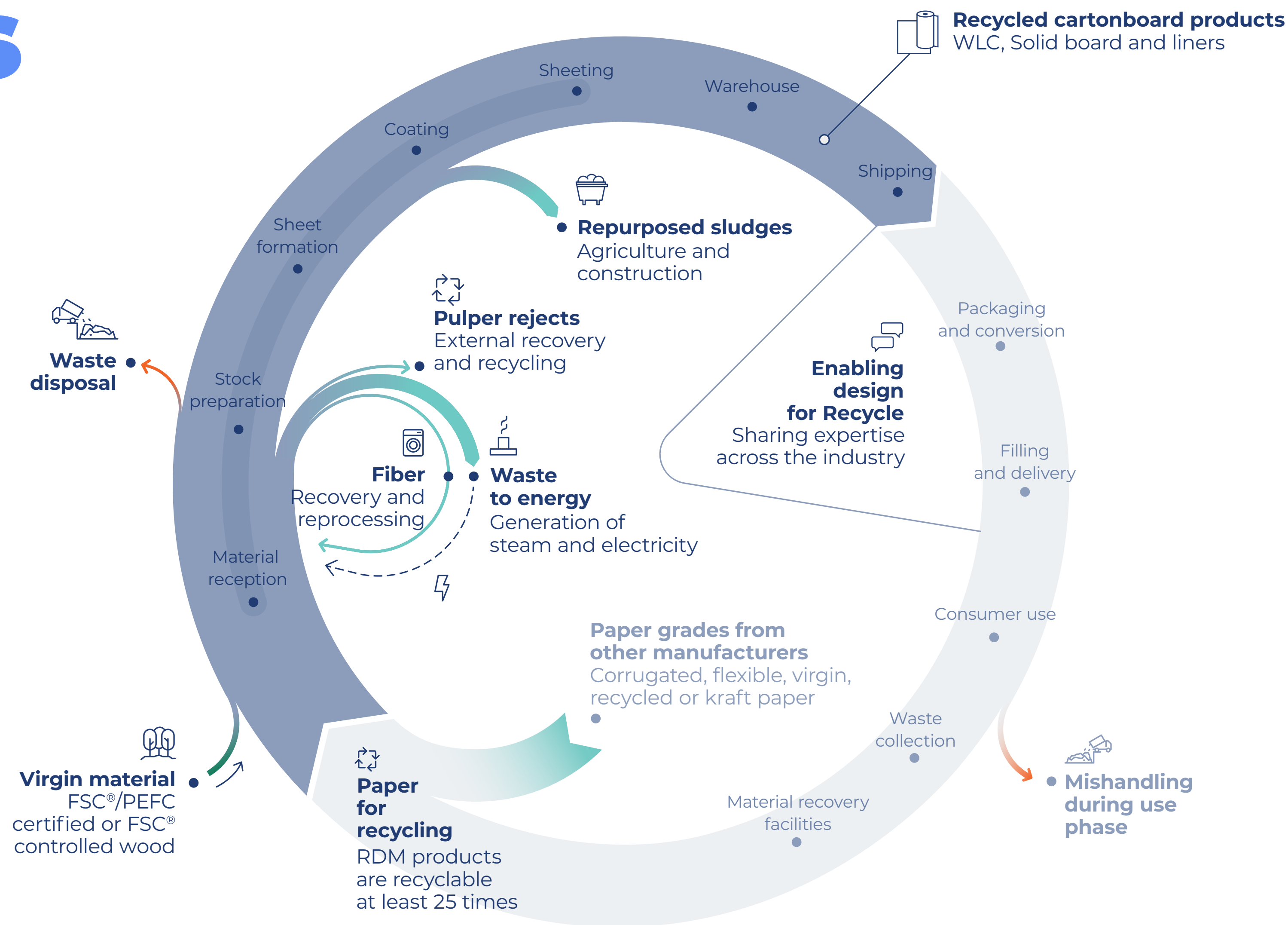


# Our business model

**RDM Group's business model is built on the principles of the circular economy, based on regenerative resources and circulating materials.**

Leveraging cutting-edge technologies, the raw materials are transformed into premium-quality recycled coated cartonboard for the converting and printing sector.

Once used, this fiber-based packaging can in turn be sent for recycling and find its way back to our mills as raw material. Our commitment to circularity goes beyond product design, ensuring optimal resource utilization during operations, reuse of water in multiple production cycles, and efficient waste management to increase recovery and recycling.



# 2020-2030 sustainability plan

## RDM Group's 2020-2030 Sustainability plan includes 8 clear and measurable goals.

It demonstrates the commitment towards sustainable practices and positive outcomes for stakeholders and the environment. By embracing a culture of continuous improvement, the Group actively refines its approach to drive meaningful progress.

GOAL	2020 BASELINE	2024 RESULT	TARGET VALUE
<b>-30%</b> scope 1 and scope 2 CO <sub>2</sub> equivalent emissions per ton of net salable production by 2030	0.495 tCO <sub>2</sub> e/t	0.449 tCO <sub>2</sub> e/t	0.347 tCO <sub>2</sub> e/t
<b>-20%</b> wastewater discharge per ton of net salable production by 2030	11.06 m <sup>3</sup> /t	9.20 m <sup>3</sup> /t	8.85 m <sup>3</sup> /t
Proportion of waste sent for recovery to <b>90%</b> by 2030	72.8%	89.7%	90.0%
<b>-20%</b> of waste generated per ton of net salable production by 2030	181 kg/t	224 kg/t	145 kg/t
<b>100%</b> of key suppliers assessed and qualified according to ESG criteria by 2025 (for all relevant product categories)	New assessment to be started	30%	100%
Implement a behavior-based safety program <b>at all mills</b> by 2025	1 mill	6 mills	9 mills
Increase the employee advocacy rate to <b>4.5</b> by 2030	3.98	4.33	4.50
<b>+30%</b> of women employed by RDM Group by 2030	9.5%	11.2%	12.3%



# Spotlight on our products

## STRONG BOARD

Our new strong board offers increased stiffness, allowing for lighter packaging without sacrificing performance or reinforcing existing packaging at the same weight. Its high mechanical strength ensures efficiency in demanding uses. A water-resistant treatment makes it ideal for frozen food.

**Fully recycled and sustainable, it's a great fit for both food and non-food secondary packaging.**



## A BRIGHTER SERVILINER

Our upgraded Serviliner, made from **100% recycled fibers**, meets rising demand for sustainable packaging. A new coating with enhanced pigments and application technology creates a smoother, glossier surface with vibrant colors and superior print quality.

**Its sustainability and strong visual appeal make it ideal for cleaning products, displays, and electronics packaging.**





## SYROS DUO BROWN

Made from **100% recycled fibers**, Syros Duo Brown is a cost-effective, eco-friendly cartonboard ideal for high-speed printing and reliable folding performance.

Its special pulp recipe creates a distinct brown finish, combining a premium look with full sustainability.

**It's a plastic-free, recyclable solution for folders, envelopes, food trays, plates, and e-commerce packaging.**



## ESKA COLOURS

Our **triple-layer, solid-colored** board combines luxury and sustainability in a premium packaging solution.

Made from recycled materials, it delivers bright, intense colors for distinctive packaging, inserts, displays, and high-end stationery. Its rigidity and durability enable versatile printing, shaping, and cutting.



**Eska Colours is ideal for sustainable, high-end retail packaging that offers exceptional product protection.**



# HOW RECKITT DESIGNS PACKAGING FOR SUSTAINABILITY

**RDM Group sits at the heart of the packaging value chain, supplying cartonboard to brand owners like Reckitt via converters. Reckitt, a global leader in health and hygiene, works closely with partners like RDM Group to design packaging that supports circularity and reduces environmental impact.**

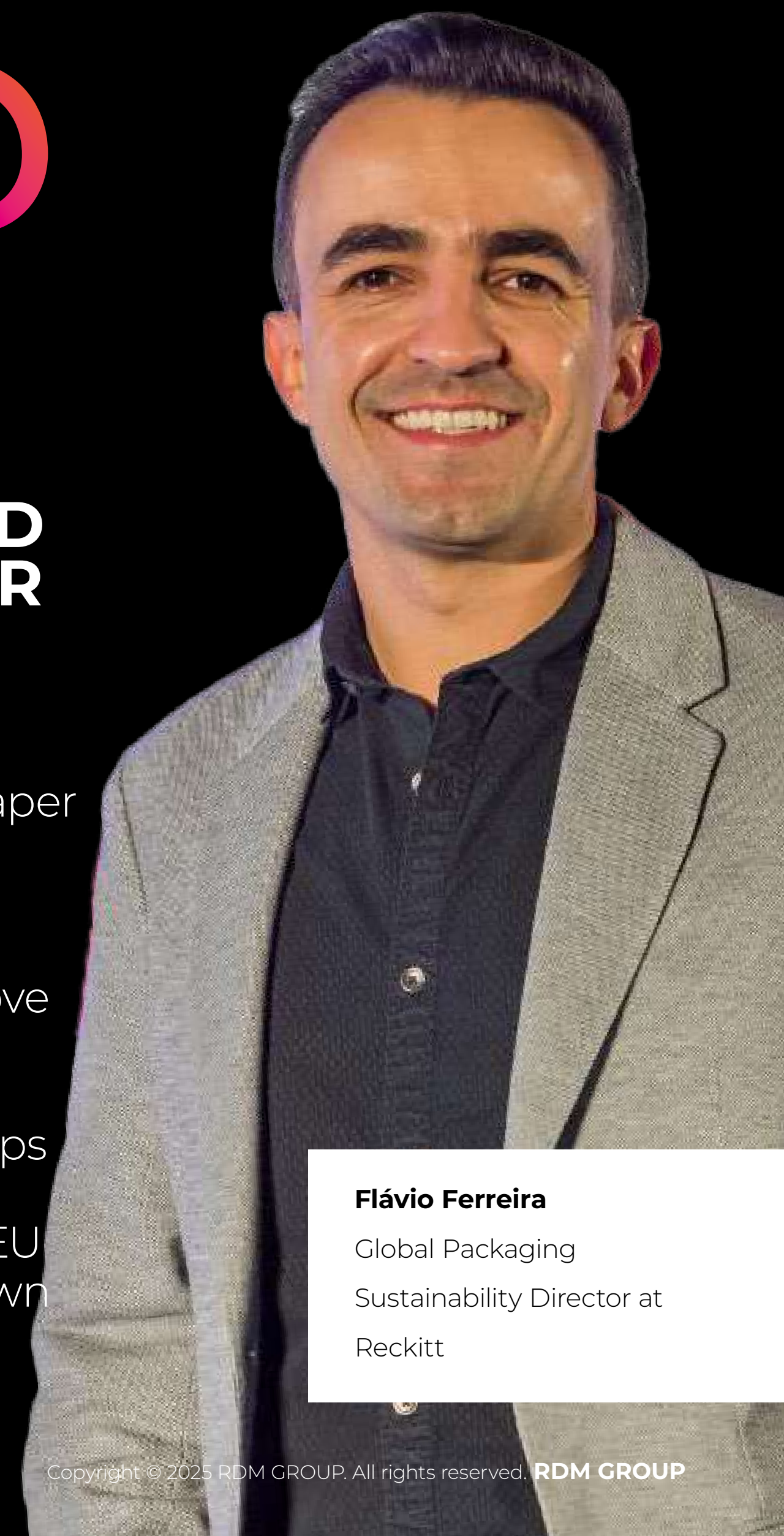
Reckitt is constantly exploring recycled and recyclable materials, such as recycled cartonboard, to cut plastic use and boost recyclability rates. “Recycled cartonboard supports our priorities,” says Flávio Ferreira, Reckitt’s global packaging sustainability director.



**“RECYCLED CARTONBOARD SUPPORTS OUR PRIORITIES”**

Flávio Ferreira

Today, **99%** of Reckitt's paper and board already comes from recycled or certified sustainable sources, and there’s still room to improve recyclability further. Through its partnership with RDM, Reckitt develops scalable, sustainable solutions that align with EU targets and support its own ambitious environmental goals.



**Flávio Ferreira**

Global Packaging

Sustainability Director at

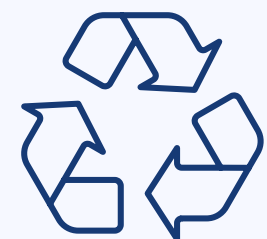
Reckitt



# Circularity

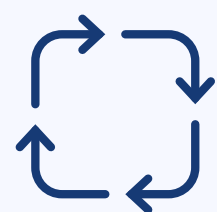
In 2024, we recycled 1,148 tons of paper. The average EU citizen produces about 76 kg of paper and cartonboard waste per year, of which 83.1% is recycled. Based on this average, RDM Group gave new life to paper for recycling that was generated by almost 18 million people – more than the population of Sweden and Denmark combined.

**RDM Group transforms and gives new life to waste materials through the production of recycled, fiber-based cartonboard that is**



## FULLY RECYCLABLE

designed to be reintroduced into the virtuous circular economy cycle after use



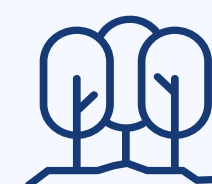
## RECYCLED

Made from recovered paper and board



## BIODEGRADABLE

if accidentally left in the environment

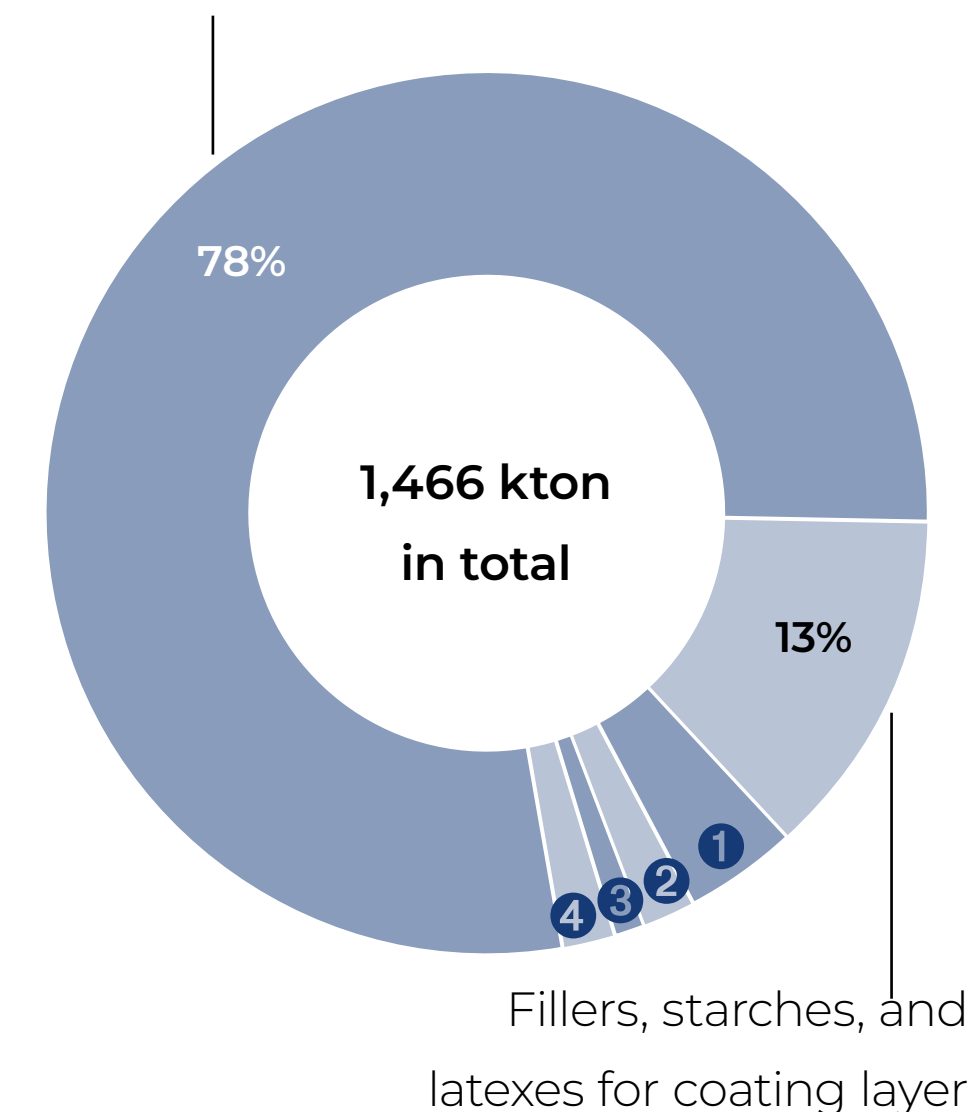


## RENEWABLE

Made mostly from natural fiber-based materials

## RAW MATERIALS USED PER TON OF CARTONBOARD SOLD - 2024

Paper for Recycling



- ① Virgin pulp **4%**
- ② Production chemicals **2%**
- ③ Product for coupling **1%**
- ④ Packaging for reels and pallets **2%**

## FIBERS USED FOR BOARD MANUFACTURING - 2024

**96%** Paper for recycling  
**4%** Virgin pulp  
 (100% from certified/controlled sources)

Paper for recycling comes from:

- **Post-consumer material:** community and household paper collection
- **Post-industrial material:** unprinted/printed production scraps collected from the converting and printing industry

Fiber-based packaging material can be recycled **more than 25 times** without losing its mechanical or structural properties.



# CIRCULAR PACKAGING PROJECT CREATES ENVIRONMENTAL BENEFITS ALONG THE VALUE CHAIN

RDM Group partnered with Arti Grafiche Reggiane (AGR) and Italian brand GranTerre to create a local closed-loop packaging system using production scraps from previous snack box batches.

This unique circular economy project involved collecting waste material from AGR's production process, returning it to RDM's plant in northern Italy, and reintegrating it into new cartonboard, 25% of which was used in the next run of GranTerre's L'ABC della merenda school snack boxes.

The initiative aimed to reduce waste, educate children on sustainability, and demonstrate transparency across the value chain. It was shortlisted for the 2024 European Carton Excellence Award.

**"RDM GROUP, AGR, AND GRANTERRE CLOSE THE FIBER LOOP WHILE OPENING MINDS TO SUSTAINABILITY AND INNOVATION"**





# Energy and emissions

**RDM Group continuously works to enhance energy performance and reduce environmental impact.**

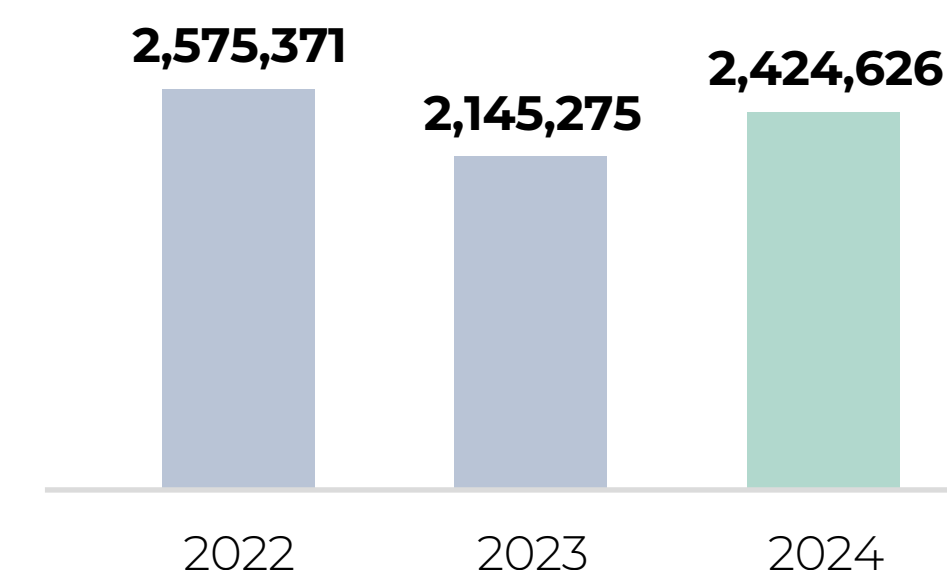
Most mills operate advanced combined heat and power (CHP) systems, while two rely on waste-to-energy (WTE) plants. In 2024, energy intensity dropped by 2.5% compared to 2023, thanks to increased production and energy efficiency measures. Process and lighting improvements saved around 15,000 MWh, contributing to a 10% reduction in Scope 1 and 2 carbon intensity.

## KEY INITIATIVES

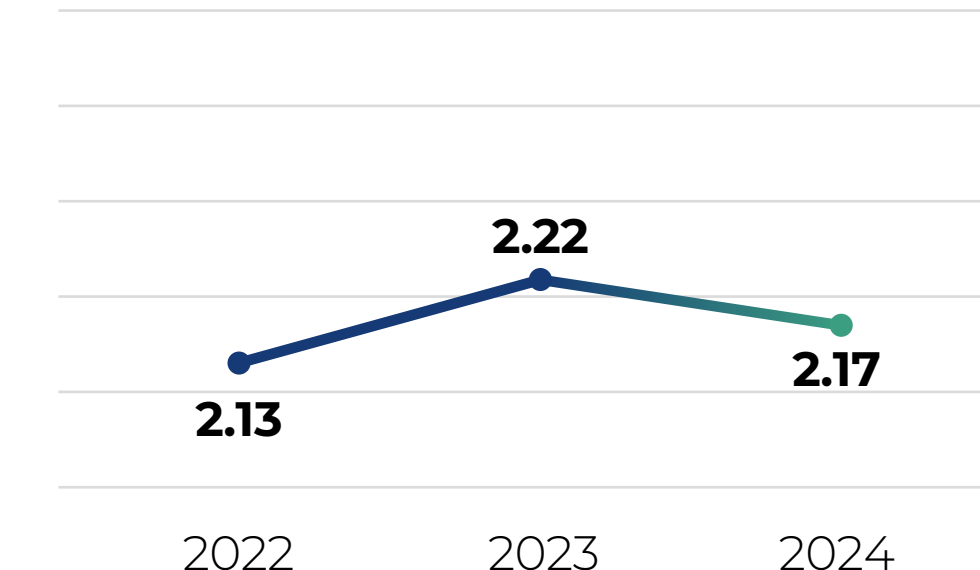
- WTE plants in Hoogezand and Fiskeby generated steam from waste, producing **54,000 tons** of biogenic CO<sub>2</sub>.
- Stage 1 of the fuel switch project in Arnsberg was completed in April 2025 with the installation of a **2.5 MW** turbine.
- Arnsberg's hydro plant now powers the mill with an annual capacity of over **4.000 MWh** of renewable energy.
- **42%** of renewable electricity purchased in 2024, avoiding 11,694 tons of CO<sub>2</sub>.

## ENERGY PERFORMANCE

Total energy consumption (MWh)

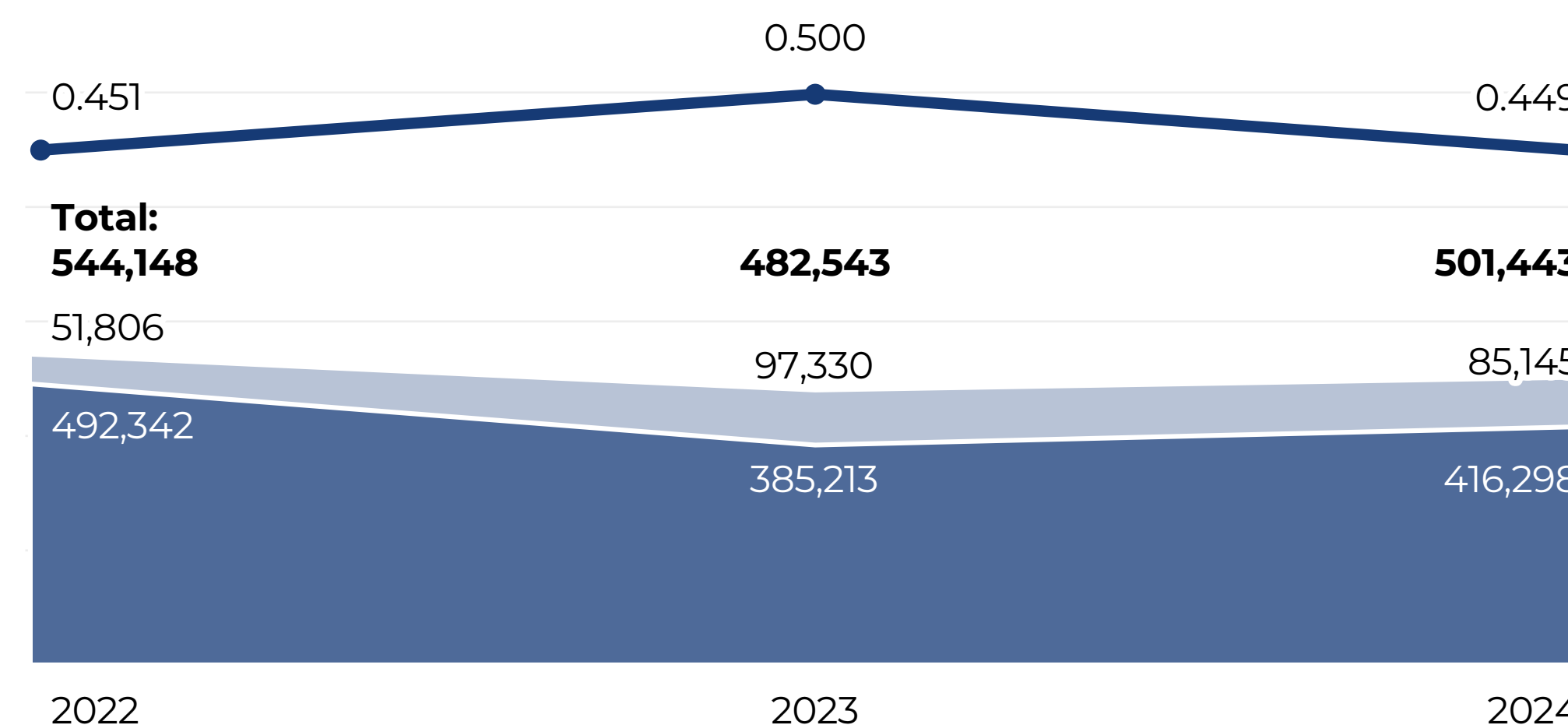


Energy intensity (MWh/tons)



## DIRECT AND INDIRECT GREENHOUSE GAS EMISSIONS (MARKET BASED)

— Carbon intensity (tCO<sub>2</sub>e/ton)   ■ Scope 1 (tCO<sub>2</sub>e)   ■ Scope 2 (tCO<sub>2</sub>e)





# Waste management

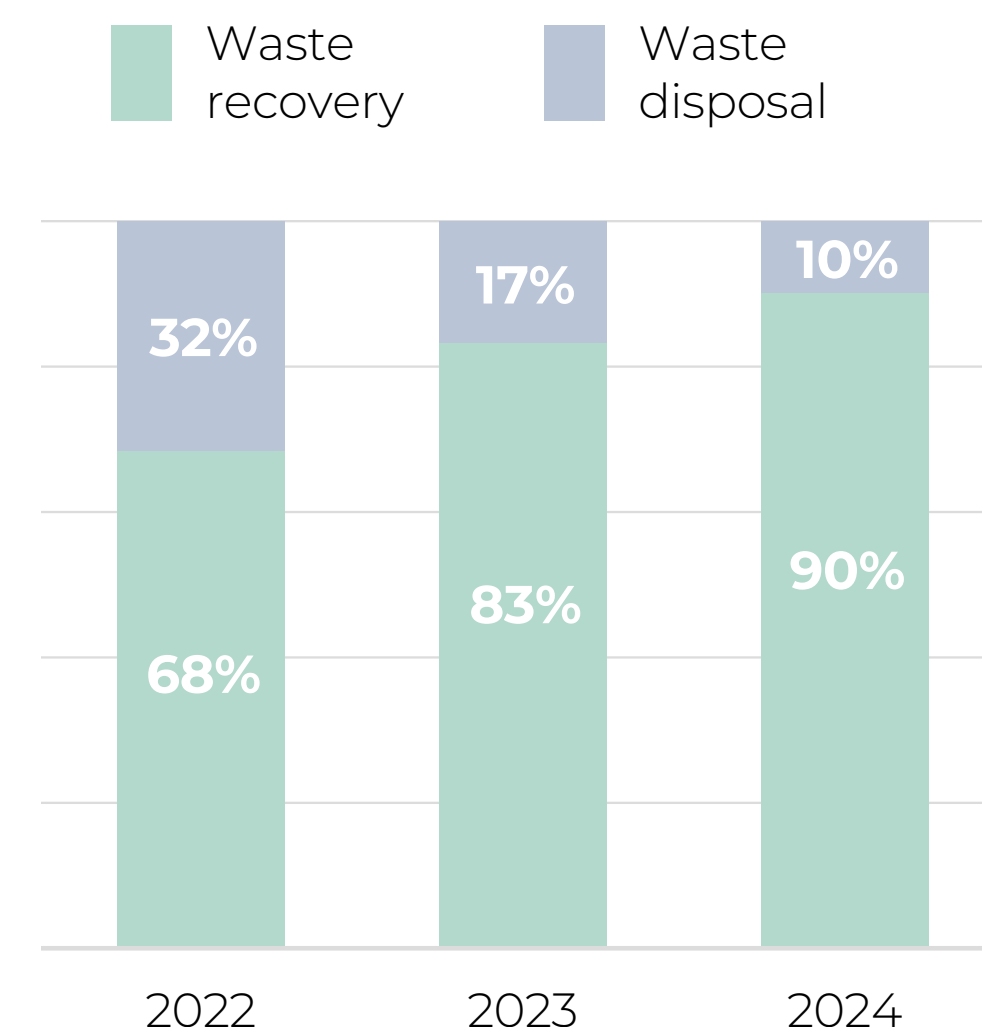
**In 2024, we continued to prioritize responsible waste management, and adapted to evolving material compositions in our supply chain.**

Particularly in Sweden, paper for recycling includes a greater proportion of polylaminate packaging – a material that presents unique recycling challenges, leading to a rise in waste intensity. We are working on this challenge and remain committed to steadily reducing waste generation across operations.

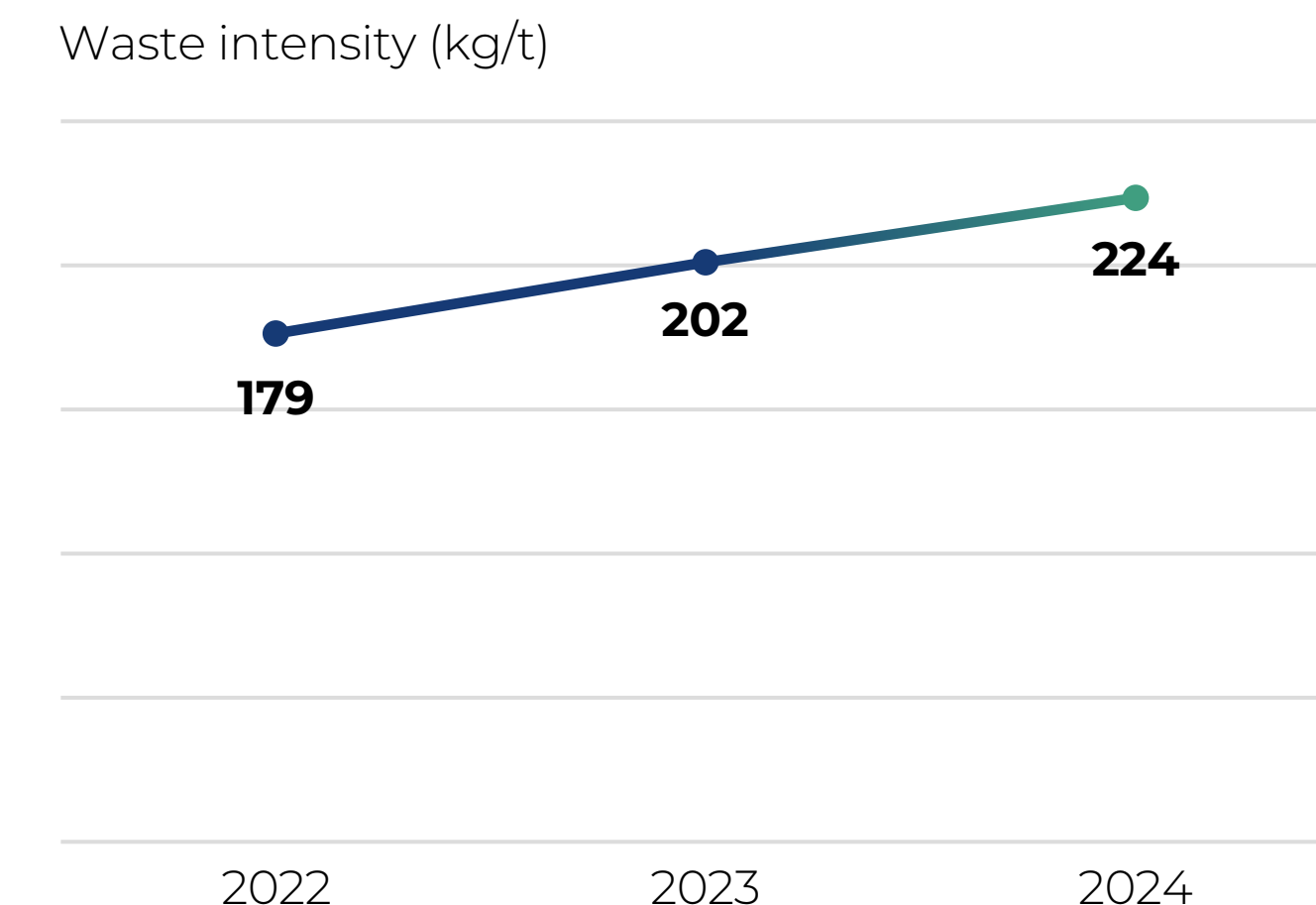
## KEY INITIATIVES

- In Paprinsa (Spain) we installed a bale press to reduce pulper waste by an expected **10%–15%**.
- Our Waste-to-Energy (WTE) plants process approximately **80,000 tons** of own production waste, diverting it from destinations such as landfills.
- Sludges generated during the process are **repurposed** to produce fertilizer or for soil improvement.

## WASTE PER DESTINATION



## WASTE GENERATED



**98.7%** of RDM Group waste is non-hazardous

**89.7%** of waste was sent to recovery

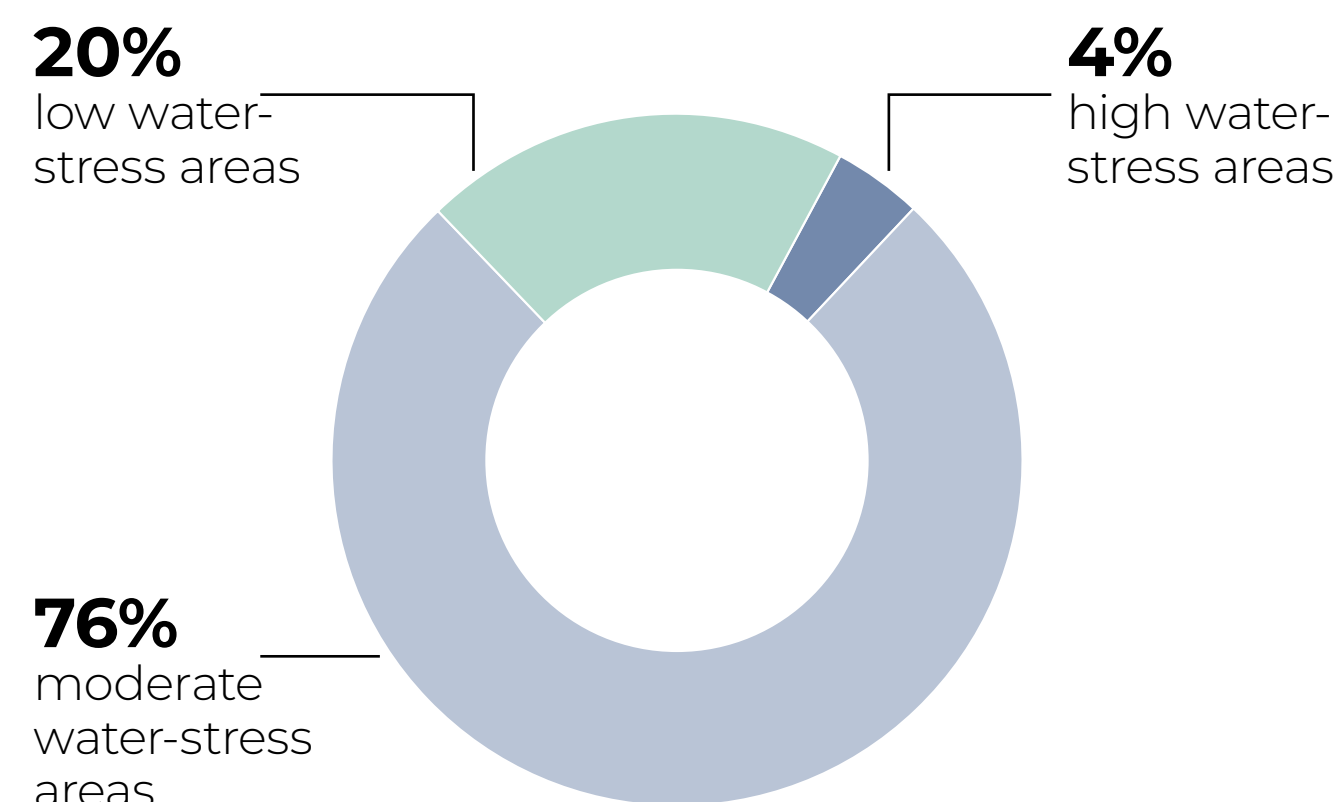


# Water stewardship

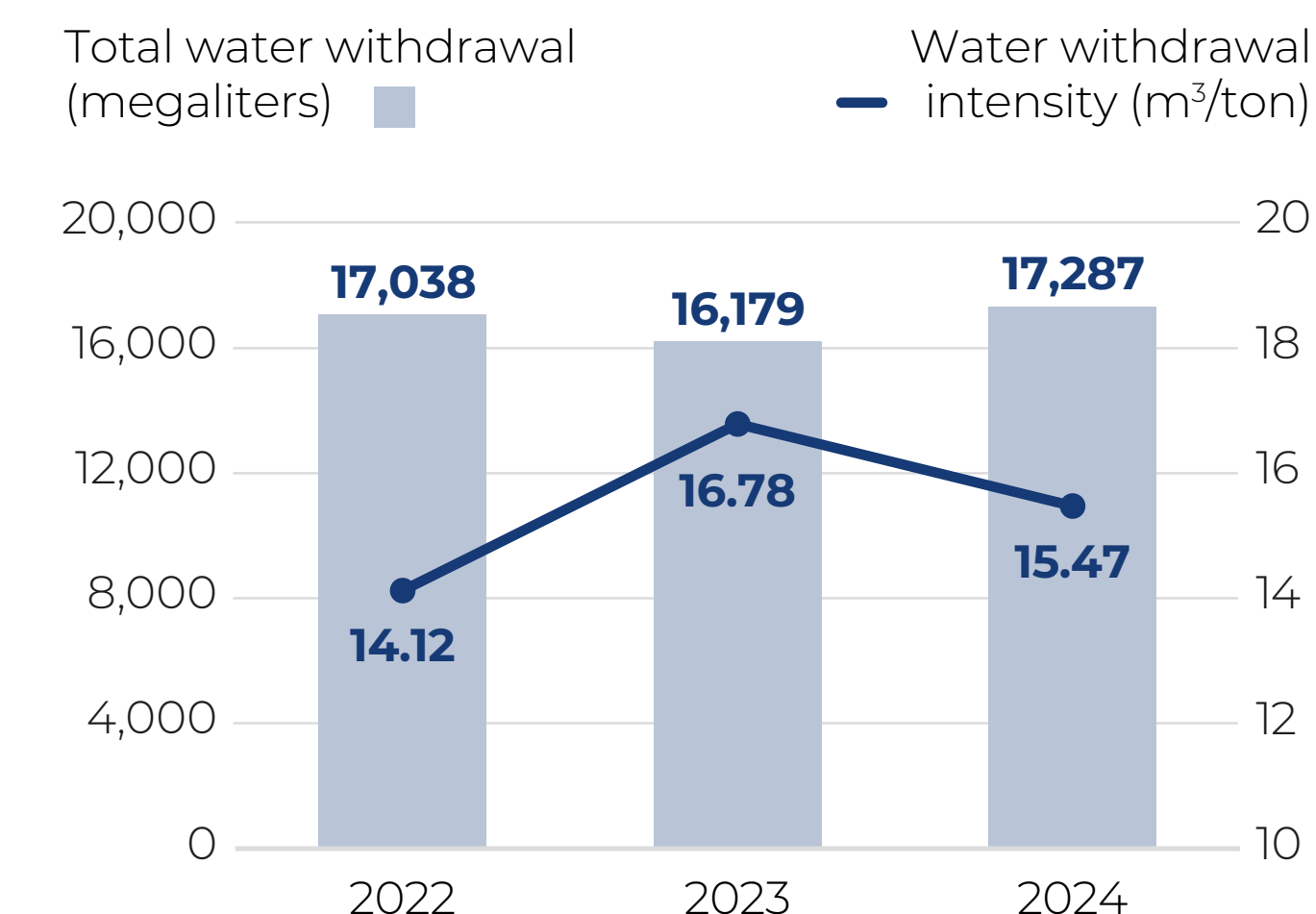
**At RDM Group, we are dedicated to responsible water management.**

By 2024, wastewater discharge intensity had been reduced by 17% compared to the 2020 baseline, decreasing from 11.06 m<sup>3</sup>/ton to 9.20 m<sup>3</sup>/ton, inching closer to the 2030 target.

## WATER WITHDRAWALS COME FROM:

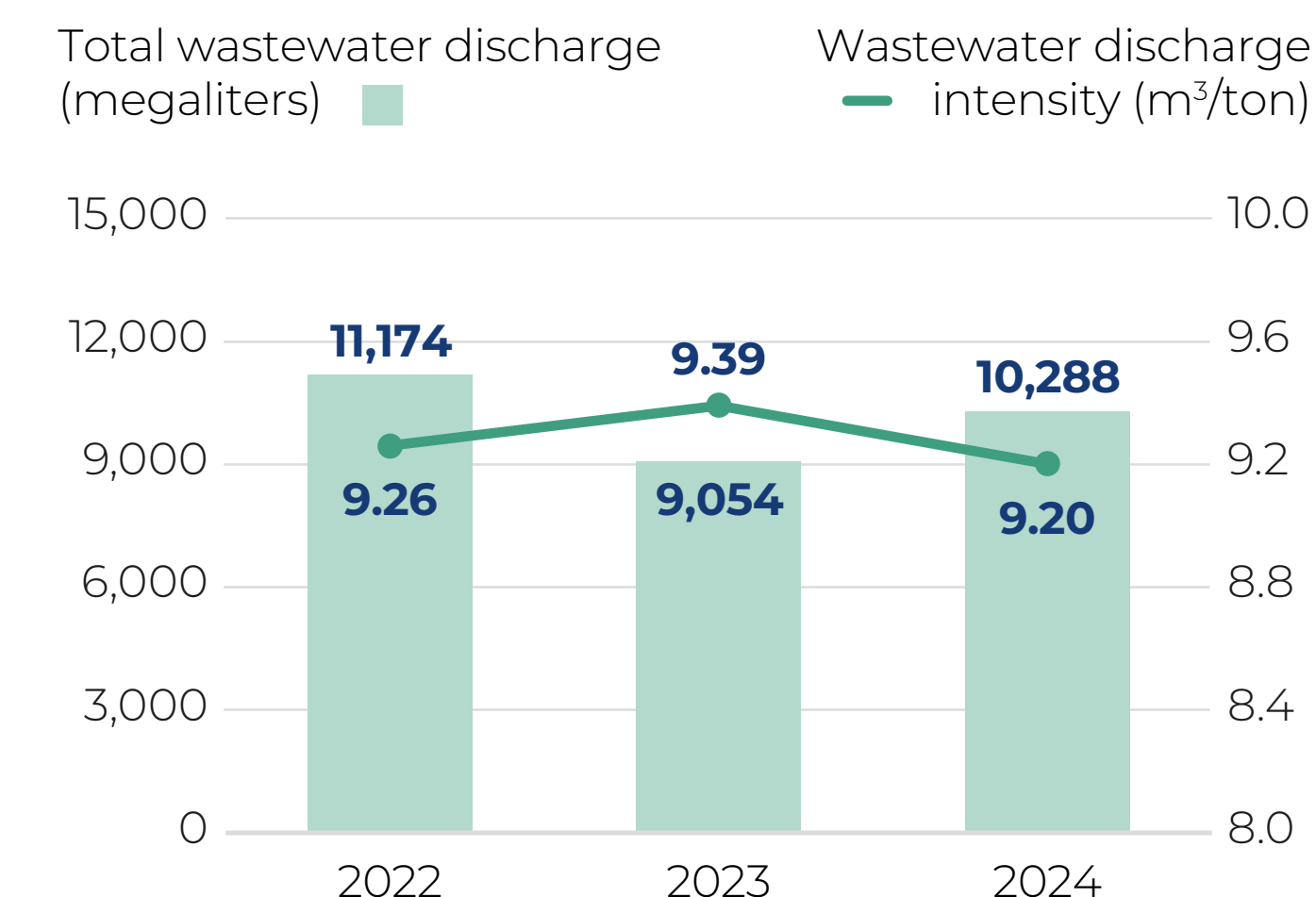


## WATER WITHDRAWALS AND DISCHARGES



## KEY INITIATIVES

- We reuse process water and recover condensed steam heat, to reduce freshwater withdrawals and increase energy efficiency at the same time.
- In Hoogezand (Netherlands) we have a closed water loop system with minimal discharges to an external water treatment plant.
- We use chemical, physical, biological, and anaerobic water treatment technologies to reduce the levels of organic and inorganic substances in our water discharges.





# Circular thinking creates value from wastewater

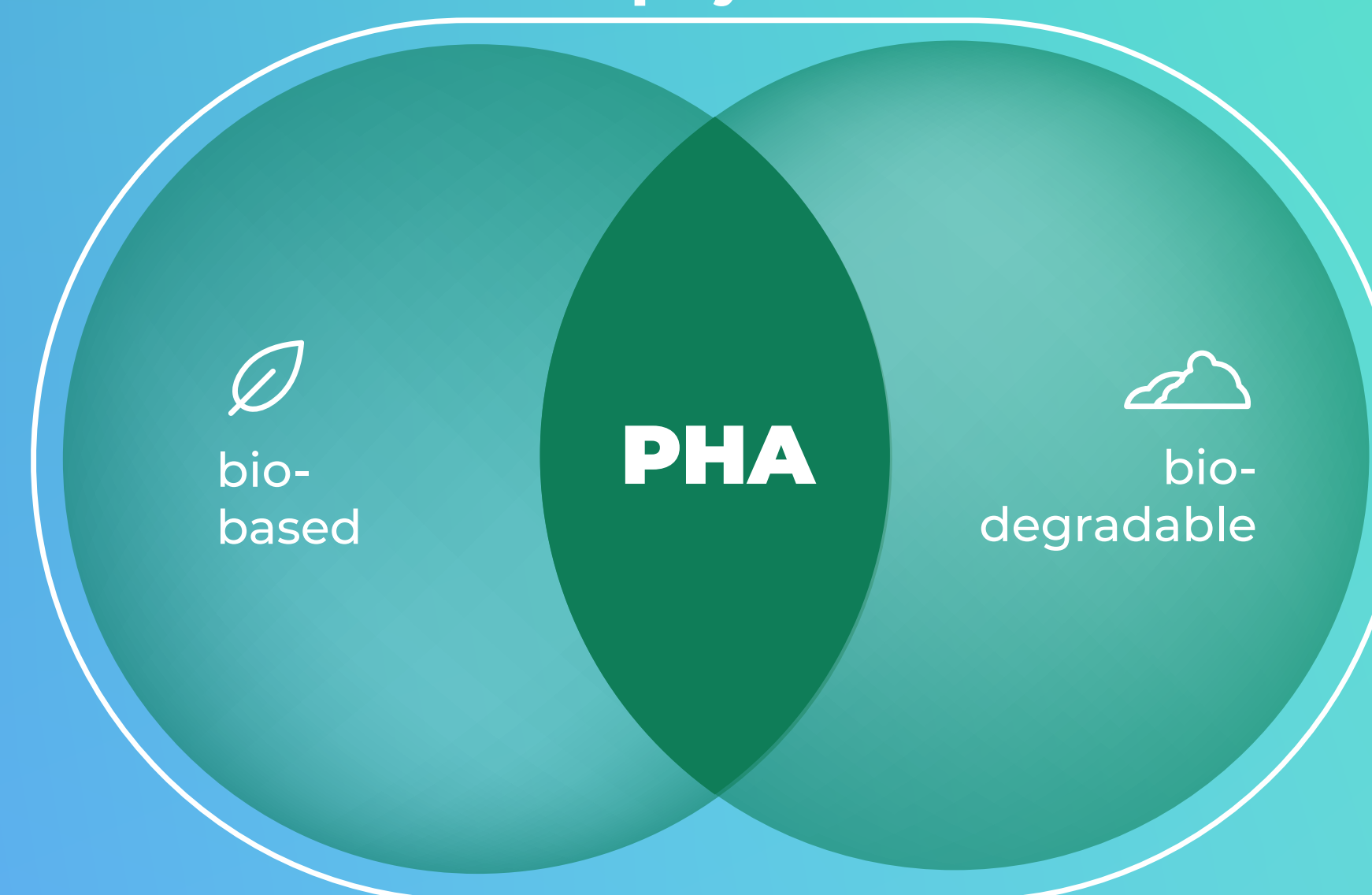
ESKA, part of RDM Group, is partnering with Paques Biomaterials to transform the starch content of its wastewater into biodegradable polymers.

This starch previously required costly treatment. Now, it will be fermented into biomass and converted into PHA, a compostable alternative to plastic. The process is energy-efficient, using heat from bioactivity, and will produce **1,500 tons** of PHA annually. This innovation enhances circularity and may lead to ESKA using PHA in its own products, for example as a barrier coating.

**The biomass plant is still in the engineering phase, and is expected to be up and running by 2027. This collaboration reflects RDM Group's commitment to sustainability and turning waste into value, reinforcing its leadership in circular innovation.**

## UPCYCLING BIOMASS INTO PHA

### biopolymers



PHA is both **biobased** and **biodegradable**, providing a sustainable alternative to traditional, non-biodegradable plastics.

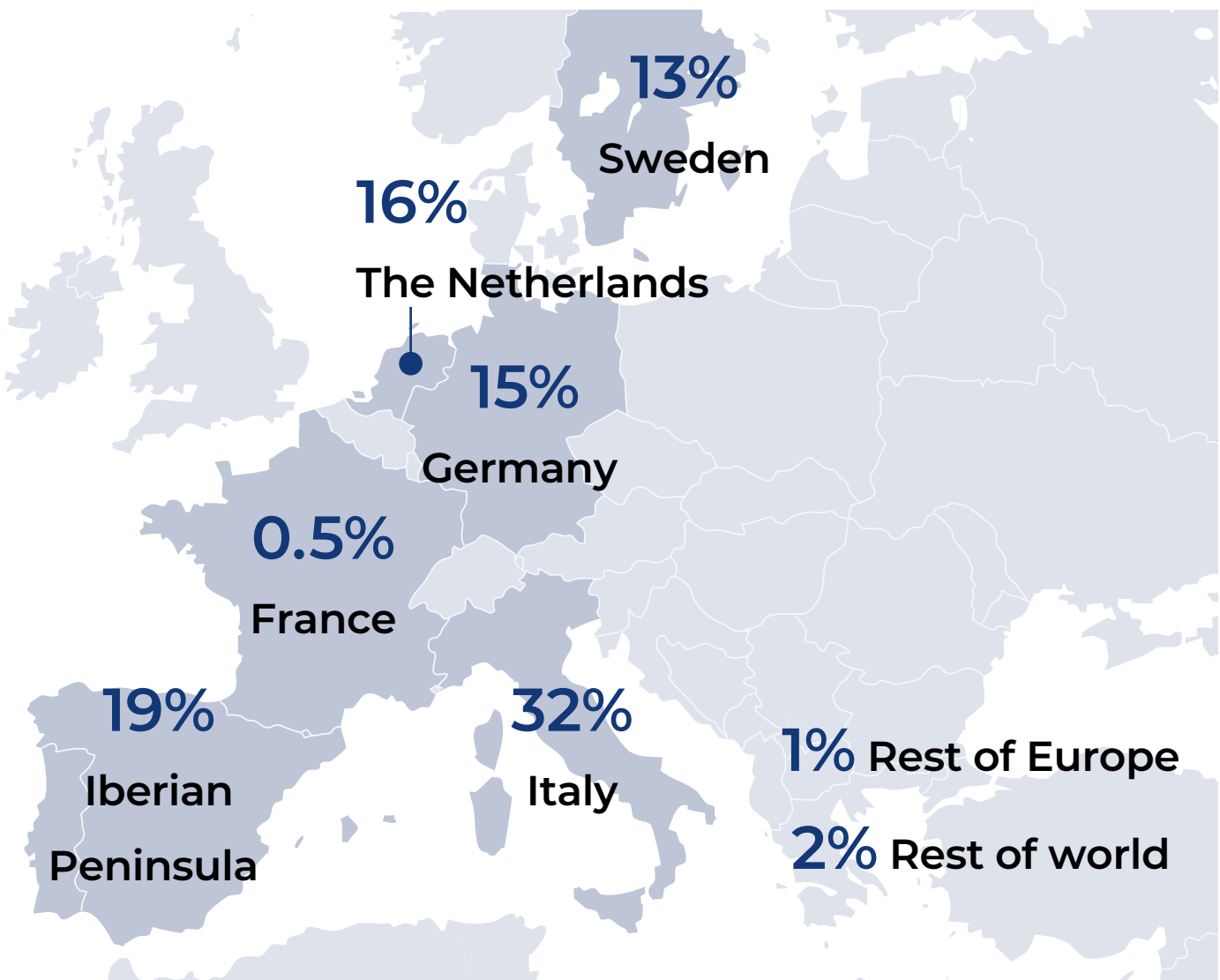


# Workforce

At RDM Group, we recognize and value the diverse talents of our people. We foster an inclusive, supportive environment where everyone can contribute to our shared success.

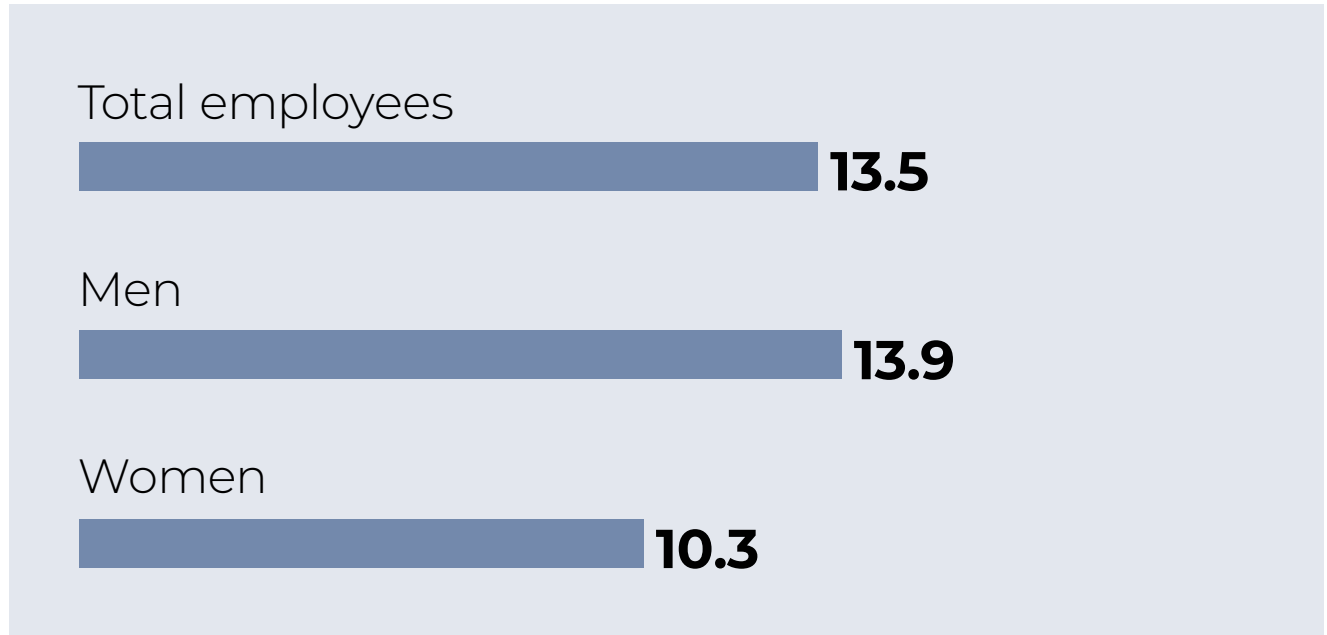
Our commitment to ethical and lawful operations is backed by clear policies that promote a safe, respectful workplace. We champion equal opportunities and actively prevent discrimination across all our sites and activities.

Employees by country (2024)



In 2024, RDM Group employed 2.133 direct employees and 100 additional interim workers in Europe, North America, and Asia.

Average training hours (2024)



Workforce in numbers (2024)

	Total	
	1,895	238
	2,133	
Executives	46	13
	59	
White-collar	413	183
	596	
Blue-collar	1,436	42
	1,478	
Interim workers	136	5
	141	

People working at RDM Group   ■ Men   ■ Women



# Safety

**At RDM Group, the health, safety, and well-being of our people are key to the integrity of the company.**

We are continuously working to strengthen a culture of prevention and shared responsibility where everyone contributes to a safer workplace. Our goal is to reduce risks, support personal development, and foster open collaboration between employees and management to protect each other's safety and well-being.

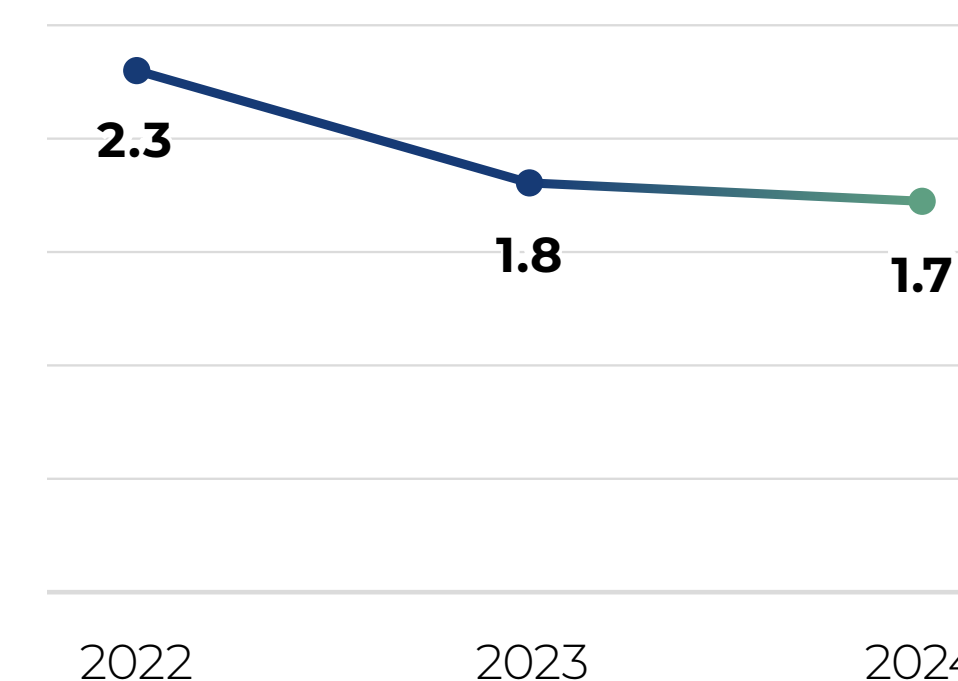
In 2024, we recorded the lowest ever accident frequency rate of 1.7. Four sites registered zero recordable injuries. This result was unfortunately accompanied by a higher severity rate than in the previous year.



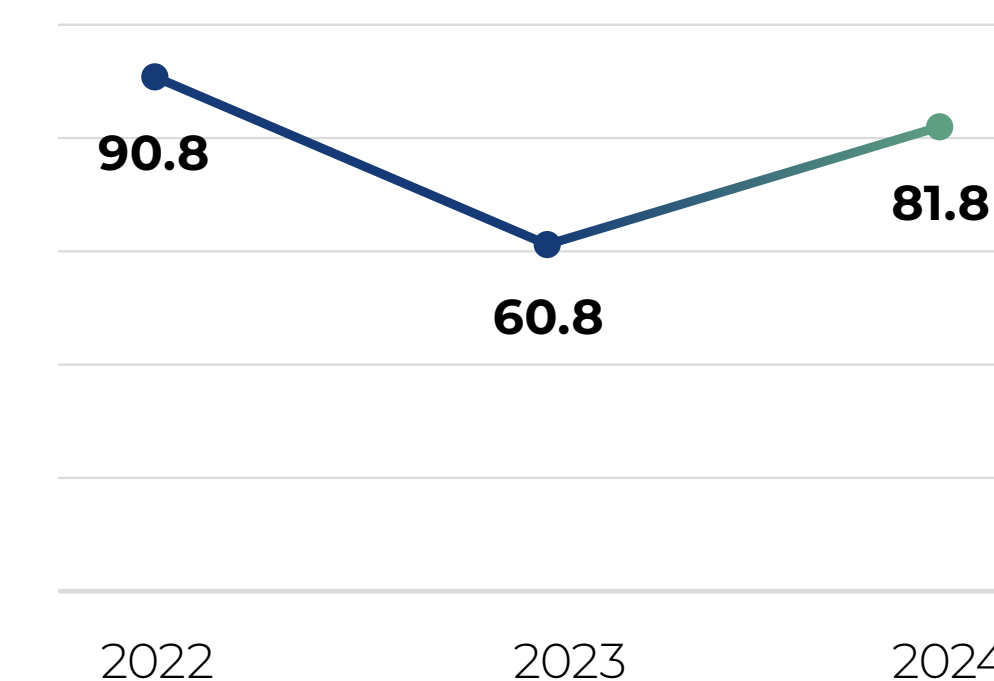
**We have already implemented a Behavior-Based Safety (BBS) System in 6 mills and intend to deploy this system in all mills by 2025.**

## Frequency and Severity of injuries (OSHA)

Frequency Rate (FR)



Severity Rate (SR)





# Credits

Reno de Medici S.p.A.

**Registered office:** Viale Isonzo 25 / 20135 Milan, Italy

**Tel.:** +39 02 89966 111 (r.a.) - **Fax:** +39 02 89966 200

**Certified e-mail:** renodemedici@pec.rdmgroup.com

**Share Capital:** € 140,000,000.00 / R.E.A. Number MI-153186

**Tax Code and Vat Number** 00883670150

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**[sustainability@rdmgroup.com](mailto:sustainability@rdmgroup.com)**



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