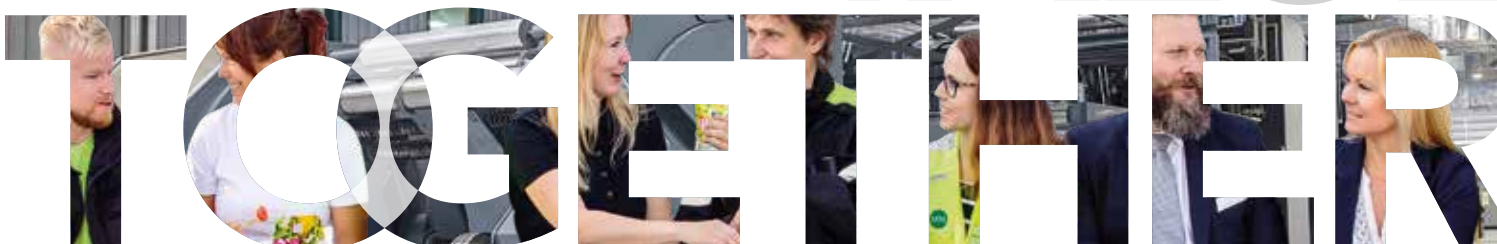




Leading in
Consumer Packaging

CREATING VALUE



Key Indicators

consolidated (in millions of EUR)	2022	2021	+/-
Sales and earnings indicators			
Consolidated sales	4,682.1	3,069.7	+ 52.5 %
EBITDA	729.9	421.0	+ 73.4 %
Operating profit	510.3	269.6	+ 89.3 %
Profit before tax	466.9	244.5	+ 90.9 %
Profit for the year	345.2	190.7	+ 81.0 %
Cash flow from operating activities	299.7	269.8	+ 11.1 %
Profitability indicators			
Return on equity	19.1 %	11.9 %	+ 718 bp
EBITDA margin	15.6 %	13.7 %	+ 188 bp
Operating margin	10.9 %	8.8 %	+ 212 bp
Return on capital employed	16.3 %	12.8 %	+ 343 bp
Balance sheet indicators			
Total equity	1,959.4	1,661.9	+ 17.9 %
Total assets	4,818.6	4,014.2	+ 20.0 %
Equity ratio	40.7 %	41.4 %	- 74 bp
Net debt	1,481.5	1,063.5	+ 39.3 %
Net debt/EBITDA	2.0	2.1	- 5.9 %
Net debt/equity	0.8	0.6	+ 18.2 %
Capital expenditures/depreciation			
Capital expenditures (CAPEX)	345.1	257.8	+ 33.9 %
Depreciation and amortization ¹⁾	219.6	151.4	+ 45.1 %
Employees			
Employees	15,640	12,492	+ 25.2 %
Share performance indicators (in EUR)			
Earnings per share	17.19	9.46	+ 81.7 %
Dividend per share	4.20 ²⁾	3.50	+ 20.0 %

Please find the five year overview 2018 - 2022 at the end of the report.

¹⁾ incl. impairment of property, plant and equipment, and intangible assets

²⁾ proposed



Leading in Consumer Packaging

Using Renewable Resources

The MM Group (MM) is a leading global producer of cartonboard and folding cartons with an attractive offer in kraft papers and uncoated fine papers for various end applications. MM promotes sustainable development through innovative, recyclable packaging and paper products.



The acquisition of Essentra Packaging and Eson Pac positions MM as a global player in secondary pharma packaging and healthcare.

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MM invests in state-of-the-art technology, product development, sustainability and efficiency for the future of the sites.





The 2021 acquisitions of MM Kwidzyn and MM Kotkamills in virgin fiber-based cartonboard and paper were successfully integrated and already contributed substantially to 2022 profit.

“Our business model with a focus on sustainable packaging for daily consumer goods is resilient and growth generating. So MM has a good long-term perspective.”

Peter Oswald

Chairman of the Management Board



Our corporate culture is characterized by the people at MM, their commitment and the noticeable enthusiasm for their work. Lived values and the focus on sustainability are our success factors.



Our responsible packaging innovations and novel barrier concepts reduce the use of plastic.



Ongoing adaptations of our IT systems to the highest security standards as well as trainings protect our data and networks from cyber attacks.



You can find our financial reports here.

“Secure a bright future for packaging, people and planet”

“Long-term perspective based on solid values”

Cartonboard packaging for everyday consumer goods as well as kraft papers and uncoated fine papers are our core competence. In two divisions, MM Board & Paper and MM Packaging, we pursue responsible, long-term growth and create value through cost-efficient, sustainable and innovative solutions.

Our values

Responsible
Collaborative

Passionate
Result-focused

Our strategic pillars

- We serve our customers' needs with expertise and passion.
- We invest in talent and leading edge technology to drive growth.
- We ensure the best-in-class efficiency of our operations.
- We create innovative solutions to replace plastic in packaging.

Our figures

2.6 million

tonnes capacity for cartonboard and paper p.a.

15,640

employees worldwide

4,056

volume of packaging produced (in million m²)

80%

share of sales in Europe

72 production sites

on 3 continents

>4,300 customers

in more than 140 countries

CDP¹⁾-Rating A

leadership status climate rating

¹⁾ Disclosure Insight Action

59%

of shares
core shareholder families (syndicate)

2022 Values

#1 Cartonboard

largest cartonboard producer in Europe¹⁾

¹⁾ excl. liquid packaging board

#2 Folding cartons

in Europe

The year 2022

MM Group is growing strongly

Group sales in millions of EUR

4,682.1

+ 52.5 %

CAPEX in millions of EUR

345.1

+ 33.9 %

EBITDA in millions of EUR

729.9

+ 73.4 %

Earnings per share in EUR

17.19

+ 81.7 %

Operating profit
in millions of EUR

510.3

+ 89.3 %

Dividend per share in EUR¹⁾

4.20

+ 20.0 %

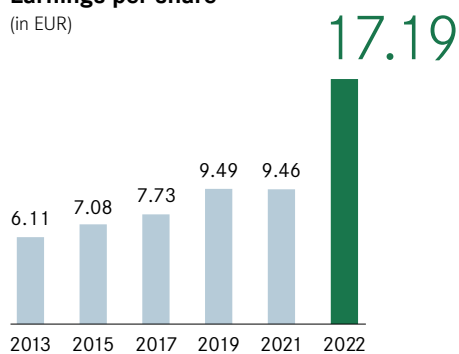
¹⁾proposed

Occupational accidents
with absence > 1 day

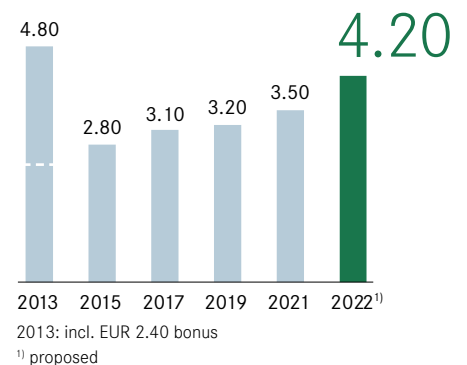
225

- 31.2 %

Earnings per share
(in EUR)



Dividend
(in EUR)

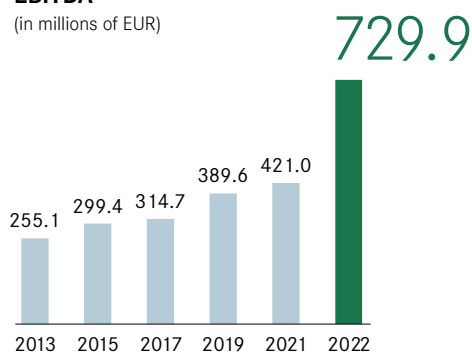




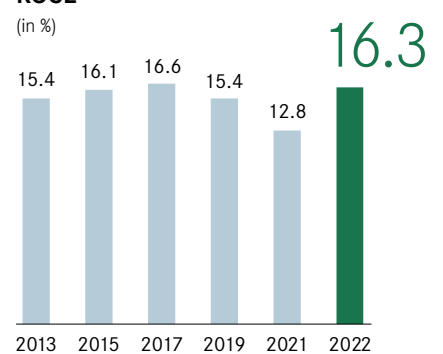
PM1 MM Kotkamills after modernization

- Strong performance in a challenging environment
- Acquisitions of Essentra Packaging and Eson Pac position MM as a global player in secondary pharma packaging
- Successful integration of the cartonboard and paper mills MM Kwidzyn and MM Kotkamills
- Sale of the packaging plants in Russia and exit from the Russian market
- Growth investments are proving successful
- Favorable organic growth in Packaging
- Solid cash generation
- Dividend increase to EUR 4.20 per share proposed

EBITDA
(in millions of EUR)



ROCE
(in %)



Highlights

Continuation of growth and transformation

With the acquisition of **Essentra Packaging**, MM Packaging takes a leading global position for future growth in the profitable and resilient business of secondary pharma packaging and strengthens the position in the European market for pharma folding cartons and leaflets. In addition, this acquisition expands the presence of MM in the US market with a significant position in the pharma-hub on the East Coast.



The acquisition of the leading Nordic pharma packaging group **Eson Pac** strengthens our presence in the Premium business of the Packaging division. The transaction ideally complements our customer base and provides attractive new opportunities to offer even more innovative and sustainable solutions.

Sale of Russian MM Packaging sites, exit from the Russian market

Integration of MM Kwidzyn and MM Kotkamills exceeds expectations in the first year



Highly innovative technological expansion in digital packaging printing creates a lot of potential.

Science-based climate targets of the MM Group officially confirmed

MM has committed itself to a reduction of greenhouse gas emissions in line with climate science. The ambitious targets have been officially approved by the Science Based Targets initiative (SBTi).



Completed growth investments of MM Packaging in Austria, Romania and Great Britain contribute to organic growth.

CDP climate rating A for the MM Group

MM has been recognized for leadership in corporate transparency and performance on climate change by the global environmental non-profit charity CDP, securing a place on its annual "A List".



Increased value added through growth and high operating performance



Major investments in the future of our MM Board & Paper mills - modernization of the cartonboard machines at Frohnleiten, Neuss and Kolicveo in 2023.



“The year 2022 was the second year in which we continued to successfully implement our strategic transformation of MM for more competitiveness and growth in sustainable and innovative packaging solutions.”

Peter Oswald
Chairman of the Management Board



Franz Hiesinger
CFO

Creating Value Together

Our strategic transformation yields first results

Dear Shareholders,

we are very pleased to report that your Company could close the exceptional year 2022 with excellent results, growing top line more than 50 % while almost doubling operating and net profit. The main profit drivers were a very strong demand in the first three quarters of the year, successful acquisitions, multiple cost reduction initiatives and strong operations from a highly motivated MM team.

Leading in consumer packaging

Our mission is to lead in consumer packaging using renewable resources. In 2022, we have made good progress towards our mission.

In our opinion, “speed” was the key to this success year, for which we would like to extend sincere words of thanks to the entire MM team who walked the famous extra mile several times to make this happen. We would also like to thank you, our Shareholders, for the great trust you have placed in MM’s growth course on which we embarked more than two years ago.

We are pleased to announce that we will propose a dividend increase of 20 % or 70c to EUR 4.20 at our forthcoming shareholder meeting in line with the good earnings performance and our long-term dividend policy.

Growth investments start to pay off

Looking at our markets, demand for our natural, recyclable packaging products made from renewable raw materials was dynamic for much of the year. Customers are appreciating our recent investments in competitive sites, innovation, quality improvements and sustainability. In this context, MM Packaging recorded encouraging organic growth of 5 %.

Successful implementation of the transformation strategy

Sustainable improvement of competitiveness through important milestones in 2022

- Number and severity of occupational accidents significantly reduced
- The strategic acquisitions of the cartonboard and paper mills MM Kwidzyn and MM Kotkamills (August 2021) and Eson Pac significantly exceeded the expectations of the business plans.
- Growth investments in Deeside (UK), Bydgoszcz (POL), Neupack (AUT) and Romania were successfully implemented.
- The acquisition of Essentra Packaging (October 2022) creates a platform for growth and more resilience for MM Packaging.
- Successful pass-through of raw material and energy costs
- Divestment of the Russian plants for EUR 134 million
- Strengthening of leadership team at MM Packaging



Good progress in a turbulent environment

Cost inflation and the energy crisis were certainly the biggest challenges, which started off already the year before and turned to an unprecedented volatility in connection with the war in Ukraine. Getting our sales pricing right was crucial, since prices for fibers and energy climbed from one all time high to the next.

We were successful in reducing some costs and mostly passing on cost inflation in time, which also ensured continuous supply to our customers despite unstable

supply chains. We rented gas storage facilities in Austria, which received much acclaim from our customers. Fortunately, they have not yet been needed. And we have hedged a significant part of our energy costs for 2023 and 2024 to be able to give long-term pricing commitments to our customers.

After the war in Ukraine started, we quickly commenced a process to understand if a divestiture of our two plants in Russia was in the interest of MM and our employees in Russia. In December, we decided that it was the best solution and closed the transaction for a debt-free enterprise value of EUR 134 million. Pleasingly, our plant in the Ukraine was in operation the whole year even though at a reduced output.

Laying the foundation for further profit growth

Overview of the most important targets and challenges in 2023

- Implementation of strategic investments at MM Frohnleiten, MM Neuss, MM Kolicveo and MM Kotkamills including photovoltaic systems within the scope of the budget
- Preparation of a strategic investment in MM Kwidzyn
- Construction of a new plant within Beauty & Personal Care in Poland
- Sales increase in MM Board & Paper, mainly through new barrier board solutions, and in Packaging, mainly through innovative solutions
- Achieve the business plan for the Essentra Packaging acquisition and higher organic growth in Pharma & Healthcare
- Realize growth and productivity gains in Food & Specialities as a result of the implemented growth investments in 2022

Successful implementation of strategic transformation

The year 2022 was the second year in which we continued to successfully implement our strategic transformation of MM for more competitiveness and growth in sustainable and innovative packaging solutions.

First, the 2021 acquisitions of Kwidzyn and Kotkamills in virgin fiber-based cartonboard and paper were successfully integrated into the Group and already contributed substantially to 2022 profit.

Second, we seized the opportunity to enter the growing, profitable and resilient market of secondary pharma packaging. With the acquisitions of Essentra Packaging and Eson Pac we added another pillar to the Group with sales of more than EUR 500 million and a leading global position in this business. Essentra Packaging was historically only marginally profitable and we identified a huge potential to improve results. Whilst it is still early days, we can confirm that we are on track with our turnaround of the former Essentra Packaging. Eson Pac, acquired in April, has far exceeded our expectations.

Third, we continued our capex-programme with plant expansions and technical modernizations in both divisions. We want to grow in our business through more innovative solutions, sustainability and efficiency to be the cost and technology leader. Some of these projects faced delays in the last year, but overall we are on track.

Fourth, we have defined challenging, science-based climate targets and are proud of the inclusion of MM in the A List of the CDP, since this confirms our sustainability approach and efforts by an independent organization. A number of projects with regard to increasing bio mass and photovoltaics are under way to both achieve our climate targets as well as increase our self-sufficiency in energy.

Sustainability – key in how we define success

Although sustainability has for long been embedded in MM's business model reflecting the circular economy, non-financial performance has become a key criterion in how we define success. With regards to work safety we have again achieved strong progress in reducing accidents.

Value creation from growth and operational performance

The key pillars in our transformation process are profitability, sustainability, responsibility, innovation and financial stability. In the last three years, we focused on creating value mainly through strategic realignment, expansion and top line growth. In the next three years, the focus of value creation moves more towards delivering synergies and executing operational improvements.

A good long-term perspective

Looking into 2023, geopolitical and macroeconomic uncertainties make any forecast difficult. The demand boom in Board & Paper ended abruptly already at the

end of the third quarter last year due to destocking in the supply chains. And since customer inventories are still high, significant market-related downtime in our cartonboard and paper production are carrying on from the 4th quarter into the 1st quarter of this year. In addition, our announced major capex projects at the Frohnleiten, Neuss and Kolicovo mills will lead to longer, technical machine downtime during the first three quarters.

On the other hand, some input prices are declining, reflecting the currently weak demand, which is positive but may gradually put more pressure on sales prices. So, as expected, for our Board & Paper division a decline in volume and results is foreseeable for 2023.

In the Packaging division, demand has weakened slightly in the first two months, but shows resilience. Nevertheless, structural adjustment measures and cost optimization efforts will have to be further pursued mainly for the ex Essentra Packaging business, but also our legacy packaging. This will lead to one-off costs.

So 2023 will be a transition year for MM Board & Paper as well as an integration year for MM Packaging.

Our investment activity will remain elevated in 2023, surpassing EUR 400 million in order to further strengthen the competitiveness and growth abilities of MM.

The balance sheet of the MM Group and ongoing cash generation are solid. Our business model with a focus on sustainable packaging for daily consumer goods, substituting plastic, remains resilient and growth generating. So MM has a good long-term perspective.

Best regards,

Peter Oswald
Chief Executive Officer

Franz Hiesinger
Chief Financial Officer

in March 2023

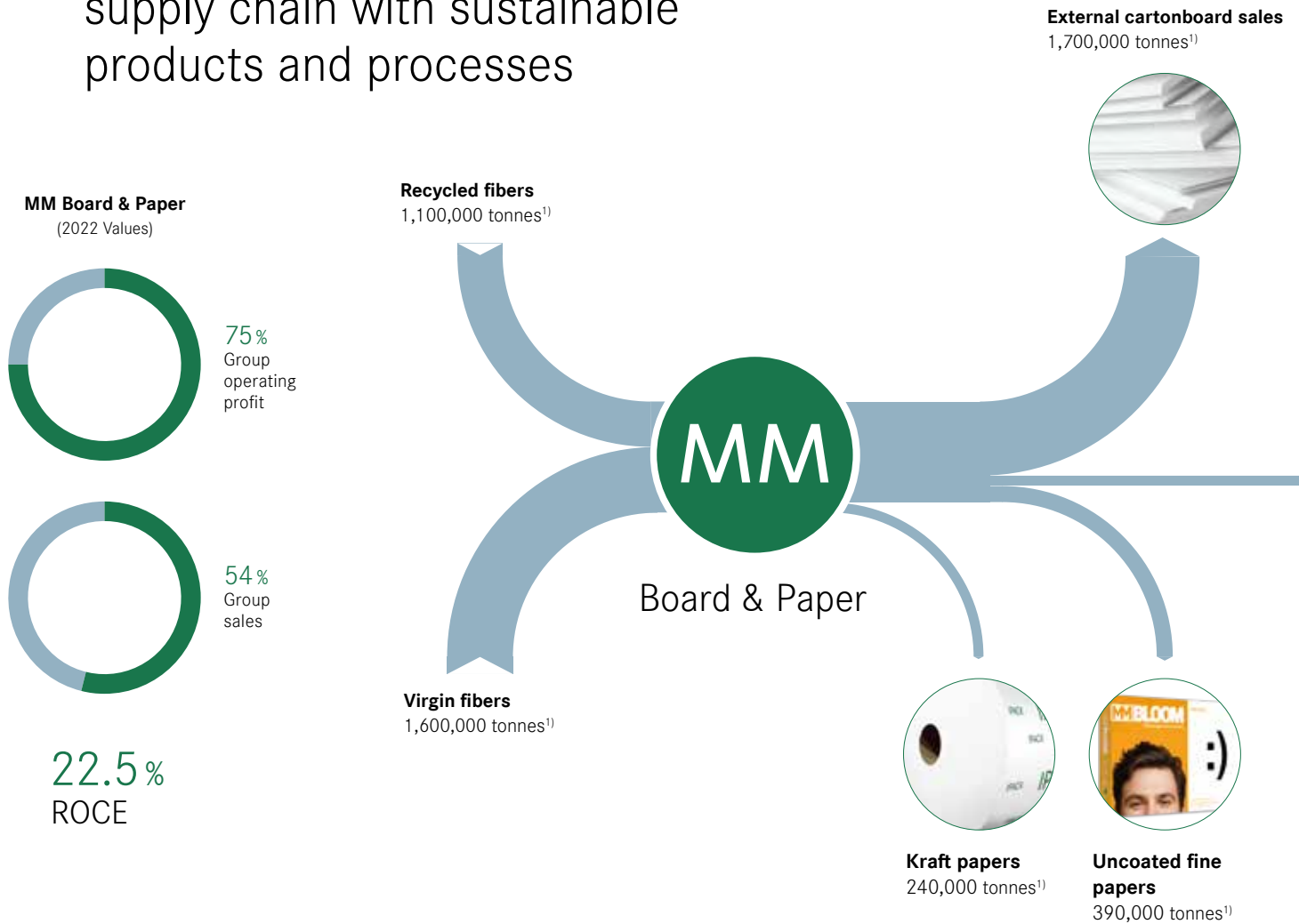


Please find here the video statement of CEO Peter Oswald and CFO Franz Hiesinger on Annual Results 2022.



Our business model

We create value added along the supply chain with sustainable products and processes

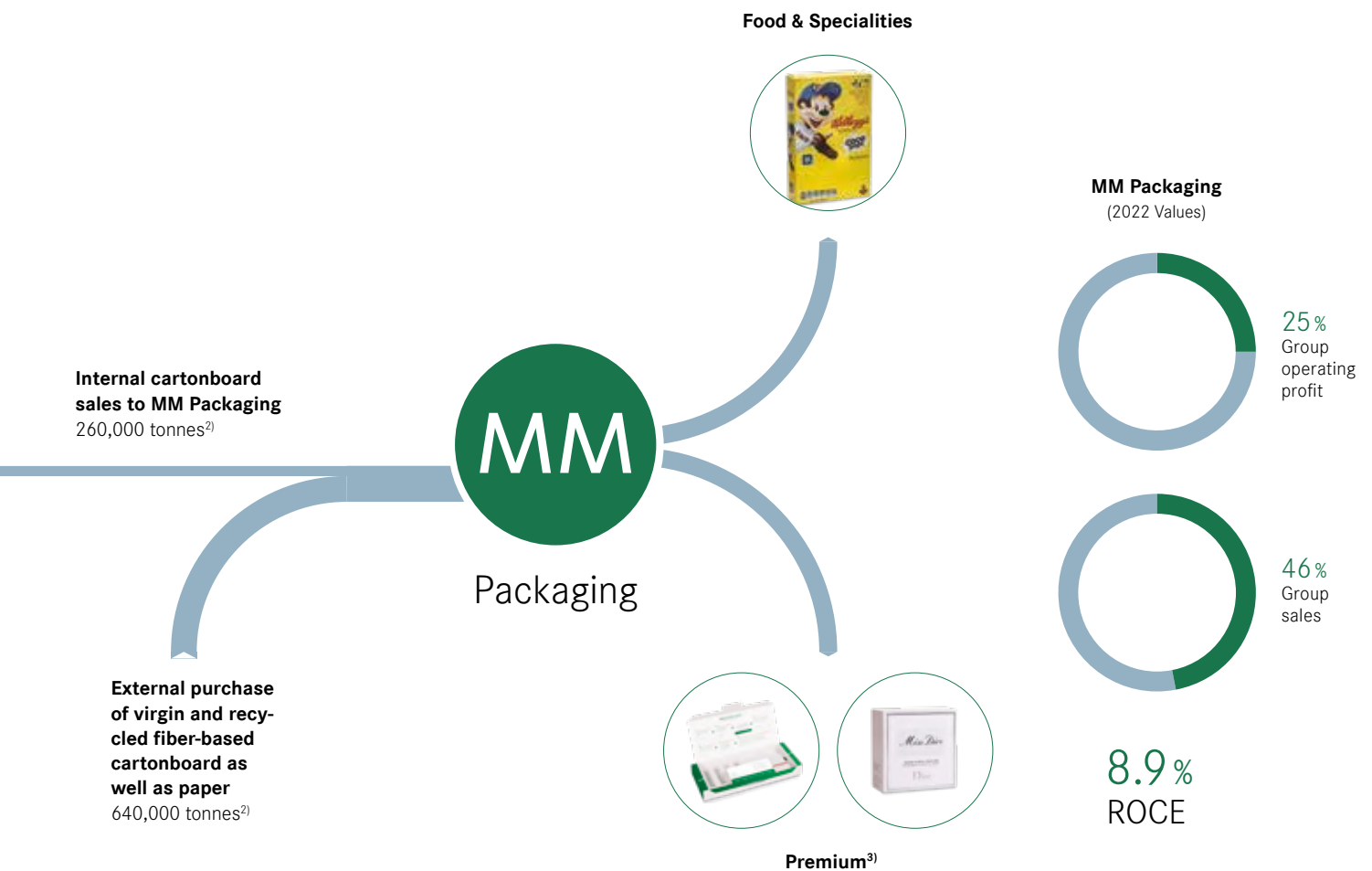


Fibers

For the production of our cartonboard products, we purchase fibers mainly on the spot market. We source recycled fibers from municipalities and traders. For virgin fibers, we mainly use groundwood pulp which is also produced directly at the cartonboard mills. The pulp for our paper products is produced in-house on an integrated basis.

MM Board & Paper

In addition to fibers, energy, chemicals and logistics are significant input cost factors in cartonboard and paper production. Cartonboard is sold to packaging manufacturers and consumer goods producers. Kraft papers are sold in particular to the food/gastronomy industry and the laminate industry, fine papers to paper/office supply retailers.



¹⁾ MM Board & Paper: based on capacities without subcontracting

²⁾ MM Packaging: Values 2022

³⁾ Pharma, Healthcare, Beauty, Personal Care, Cigarette and Luxury

MM Packaging

Cartonboard and paper are the main input factors of MM Packaging. As a result of the broad sales spectrum, the share of recycled fiber-based cartonboard processed and of virgin fiber-based cartonboard processed including paper is approx. 50 % each. MM Packaging is supplied by MM Board & Paper at market conditions.

End markets

The Food & Specialities and Premium markets contribute in roughly equal parts to the sales of MM Packaging. The highly specialized Premium business comprises the areas Pharma, Healthcare, Beauty, Personal Care, Cigarette and Luxury.

Pharma, attractive potential for growth and value enhancement

Acquisition of Essentra Packaging and Eson Pac positions MM as a leading global manufacturer of pharma packaging



MM Nekicesa, Madrid (Ex-Essentra)

Growth Market Pharma

The global pharma and healthcare industry is a large and socially important market for secondary packaging solutions such as folding cartons, leaflets and labels. Driven

by an aging population, especially in Europe and North America, and increasing innovative treatment options, for example in the fields of oncology and immunology, we expect a very attractive growth potential in the next years.



“Secondary pharma packaging is a highly attractive growth market for MM. We will expand our pharma

business through significant investments in machinery and employees to achieve the ambitious growth plans of our customers in the best possible way.”

Andreas Koppitz
CEO BU Pharma & Healthcare

MM is a leading supplier in Europe and North America

MM has been represented in this market in particular since the acquisition of the French MM Packetis plants in 2015. Through the acquisitions of Essentra Packaging and Eson Pac in 2022 with more than 20 plants, the MM Group is now a leading supplier of secondary pharma packaging in Europe and North America. Currently more than 80 % of the largest pharma companies are being supplied with folding cartons, leaflets and labels.

Ambitious investments - attractive value enhancement potential

We see significant growth opportunities with both current and new customers and will support these with significant investments in existing plants: for 2023 alone, machinery

Growth drivers Pharma

- Aging society
- Increased health awareness
- Trend toward home and self-medication
- Increased emergence of generics
- Expanded ESG focus
- Increased regulatory requirements



Security through innovative solutions

investments of EUR 80 million are planned in the pharma business in order to support the ambitious growth plans of our customers in the best possible way.

Substantial synergies

Packaging – Board & Paper

Pharma customers expect first-class supply reliability and quality as well as high flexibility in order to reliably map out future growth. The MM Group meets these expectations through the unique integration with virgin fiber-based cartonboard grades from MM Board & Paper for pharma applications as well as future-oriented investments and the qualifications of our employees.

Claiming innovation leadership

As a leading supplier, we cooperate closely with our customers and partners on the development of new technologies, to make medical and medical-technical products safer, more affordable and more user-friendly. Together with our clients, our approach as an innovation leader is to bring innovative solutions in the area of patient safety and sustainability to market maturity.

“MM is an excellent partner for GSK R&D. I can't give your team enough praise.”

GSK

Successful year for MM Board & Paper

Technology and quality leadership with targeted investments



Bernhard Peschek
CEO MM Board & Paper

“The commitment and professionalism of our entire MM B&P team in particular in the course of the integration of the Kotkamills and Kwidzyn mills is impressive – we get things done!”



MM B&P - a strong partner for virgin and recycled fiber-based cartonboard

Reliance on a sustainable product portfolio

In the business year 2022, MM Board & Paper has seen strong demand in all market segments and despite all challenges was able to prove itself as a reliable partner in our core markets. The strong cost increase in all areas, which necessitated ongoing price adjustments, was supported and coped with by all areas. MM B&P is characterized by a crisis-resistant, sustainable product portfolio as well as by a broad range of products which gives the individual customers the possibility to diversify. The product quality and service orientation of the company reflect the high customer expectations, as do the innovative strength and the further technical development.

Focus on talent and technology

For the exploitation of effectiveness and efficiency potential we are focusing not only on state-of-the-art technology but also increasingly on support from digital technologies along the entire process chain. In the



MM Kotkamills after performance investment PM1



“MM B&P understands its craft and stands out by a high-performance orientation.”

Our sense of responsibility and our consistency make us a reliable partner.”

Thomas Kratochwill
Chief Sales Officer and Deputy CEO, MM Board & Paper

training and further education of our employees, we set extensive focus, for example by Lean and 6 Sigma training¹⁾ across locations. After more than one year of a successful integration of the mills MM Kwidzyn and MM Kotkamills, there is still a lot of potential to detect within the Company, to strengthen cooperation, share knowledge, and to learn even more from each other. Our values Responsible, Collaborative, Passionate and Result-focused are the foundations of our success.

Investing in sustainability, quality and efficiency

Machinery will be raised to a new level in 2023 in particular, with targeted investments to further extend

quality leadership and to sustainably reduce specific energy costs. A focus is also placed on reducing CO₂ emissions, together with increasing competitive production capacities to be able to support the growth of our customers.

2023 under the sign of several future-oriented conversions

The year 2023 will essentially be characterized by several plant conversions and the introduction of new, sustainable products, taking into account the latest packaging trends. All this will further strengthen our competitiveness and is in line with our mission: Secure a bright future for packaging, people and planet.



Office paper for perfect print quality

“MM Board & Paper was able to continuously ensure the supply of cartonboard to De-Vau-Ge even in the past challenging times, especially in the supply year 2022.”

Jürgen Ridder
Member of the Management
Chief Supply Chain Officer (CSCO)
DE-VAU-GE Gesundkostwerk Deutschland GmbH

¹⁾ Management system for process improvement using different mathematical methods

Transformative acquisitions

Best practice - success factor in post-merger integration



“In the integration program, we combine the unique talents and experiences of our existing and new

MM colleagues in order to walk a joined MM path. Our motto thereby is: We create the best of both worlds.”

Evelyn Hartinger

Head of Strategy & Transformation 2021/2022

MM is now also represented in the strategic growth market of the US East Coast.

Rapid integration through structured process and close cooperation

A structured acquisition and integration program under the leadership of an experienced team of project managers and experts from specialist functions, which supports the transactions from due diligence to integration into the MM Group, enables MM to integrate the acquisitions quickly and successfully into the Company. In the focus are financial, process and IT integration as well as organizational and cultural integration of the new colleagues.

2021/2022: Years of strong strategic growth

MM was increasingly active as a strategic buyer in the years 2021 and 2022. In this course, the Company has grown significantly through the acquisitions of the mills MM Kwidzyn and MM Kotkamills in the virgin fiber-based cartonboard sector of MM Board & Paper (2021) and the acquisition of Essentra Packaging and Eson Pac (2022) in the area of secondary pharma packaging of MM Packaging.

Moving up to a new scale league

As a result of the acquisitions, the MM Group has not only gained more than 5,000 employees, but also entered a new scale league in the last years. In addition to strengthening its presence in the European market,





MM Newport, UK - MMP Pharma & Healthcare

Realization of synergies through mutual learning and appreciation

In the integration of the virgin fiber-based cartonboard mills, synergies have so far been achieved mainly through the transfer and exchange of structural and operational best practices within the Group. In addition, value-enhancing investments have been and will be implemented swiftly. At the same time, our open corporate culture and appreciation support mutual learning and motivate the teams to find new solutions and ways. These success factors are also at the forefront of the integration of the acquisitions in the Packaging division in 2023. With this in mind, the centrally managed integration program is to be continued until summer 2023 and will then be fully transferred to the responsibility of the line organization.



Rebranding MM Packaging Puerto Rico, Guaynabo



“Joining MM has a great opportunity for the Ex-Essentra Packaging business. Customers benefit from increasing safety of supply through vertical integration, a strong operational performance focus and capex in modern equipment. The combined footprint offers both proximity to customers and the scale of a global player in Pharma & Healthcare packaging.”

Olivier Serre
Vice President MM Pharma & Healthcare Sales and Marketing

Growing together based on shared values

Lived values and the focus on sustainability
are our success factors



Petra Pointinger
Head of Group Human
Resources & Internal
Communication



Eva Edelmüller
Head of Talent
Attraction & Talent
Management

“Enthusiasm and
commitment are
noticeable and lead to
top ideas and results.”

#growingtogether
Find out about
career opportunities
at the MM Group.



We at MM accomplish a lot

Also in 2022, we continued to grow through two acquisitions and have significantly expanded our global presence. Our employees are largely responsible for this successful year: through their enthusiasm, acceptance of responsibility, focus on results and, above all, close cooperation, they have accomplished the tasks and challenges they were faced with in the best possible way. We are convinced that success should be celebrated, and we also spent time for this at joint events away from work.

Challenges very well mastered

In addition to further growth, the year was marked by unpredictably difficult conditions which, thanks to our professional and committed employees, we were able to master very well. Neither high inflation and supply bottlenecks nor the tragedy of the war in Ukraine were able to shake our positive attitude. We have grown with our challenges, learned from them and supported each other. Together, we also succeeded in securing sustainable solutions, first-class operations and continuity for our customers in this extraordinary period.

A strong team

The experiences of the year 2022 have strengthened us not only personally, but also as MM team. Various tools and initiatives such as coaching, mentoring, buddy system, multi-source feedback, succession planning, as well as international assignments support our employees in acquiring and strengthening key competences for their day-to-day work.

Noticeable enthusiasm for sustainable success

Exciting tasks, internationality and dynamic development make MM an attractive employer. Our corporate culture is characterized by the people at MM, their commitment and the noticeable enthusiasm for their work. The visibly lived values and our focus on sustainability are key factors in the search for new employees.

Excellent HR Management

The HR contribution to the ongoing transformation of MM was also recognized externally in 2022. A jury of experts has awarded Petra Pointinger, Head of Group Human



HR Person of the Year
HR Award 2022

Resources & Internal Communication, at the largest HR conference in the DACH region the “HR Person of the Year” award. She succeeded in making a very positive impact and we are proud of that.

“Potentials are recognized and promoted. Every employee in the Company has the opportunity to achieve a lot, to develop and take on a lot of responsibility already at a young age.”

Rating on [kununu.com](https://www.kununu.com)



We create innovative solutions for plastic substitution in packaging

we.invent

Moulded Pulp - trend towards sustainable packaging in plastic replacement



„Innovation is an essential core process within MM, inspiring people to deliver

timely solutions for tomorrow's challenges.“

Christian Neumann

Director Innovation & Product Development

Responsible packaging innovations

Sustainability, especially responsible sourcing, production and recyclability, are key drivers for innovation at MM. Our innovative packaging materials and design concepts create a compelling reason to switch from plastic to cartonboard and paper. In addition, we develop novel barrier concepts to reduce plastic use and facilitate the use of cartonboard as an alternative packaging material for a wide range of foodstuffs, including liquid, chilled, frozen and/or greasy foods. Our long-term research vision is focused on bio-based and compostable coatings as a replacement for plastic materials.

Open & collaborative mindset

Breakthrough innovations are not born in a silo, and so we foster internal and external collaboration to launch our novel products on the market. Each employee is encouraged and given the opportunity to suggest their own innovative ideas. We collaborate with stakeholders along the entire supply chain, including our customers, suppliers, brand owners and research partners. The active participation in 4evergeen alliance is only one of many examples where MM has the opportunity to take on new perspectives on challenges and the specific requirements that our products have to meet.



“Open internal and external collaboration is the key to ensuring that innovative products are truly sustainable and successful on the market.”

Alexey Vishtal
Head of Novel Packaging Development

Result-focused innovation approach

To be as efficient as possible and reduce the time needed to bring our innovations to market maturity, we work with a pre-defined, continuously improved stage-gate process. This involves all phases from finding new ideas, selecting the projects with the best potential for technical product development, through to branding and market launch. We have a free and open mindset when it comes to ideation, but the selection of the right projects follows a result-focused approach driven by innovation KPIs and clear strategic governance.

Awards for our innovative solutions in 2022

We are pleased to report that our innovative solutions were honored with numerous prizes at renowned international competitions in 2022: the European Carton Excellence Award, the Green Packaging Star Award, the Marken-Magnet and the Worldstar Global Packaging Award are just a few of them.



Multiple award winning fruit basket

Current recycling rates compared with the target values within the framework of the EU Circular Economy Package

	Recycling rate ¹⁾	Recycling targets 2025 (2030)
Cartonboard and paper	82 %	75 % (85 %)
Metal	76 %	Iron: 70 % (80 %) Aluminium: 50 % (60 %)
Glass	76 %	70 % (75 %)
Plastic	38 %	50 % (55 %)

¹⁾ Average recycling rates of the EU member states in 2020 according to Eurostat, as of February 2023



MM Paper Pouches - the innovative fiber-based stand-up pouch

Cybersecurity – more crucial than ever

Highest security standards
and cyber resilience



“Through our
measures and
investments in
cybersecurity
we ensure
that risks are

continuously minimized.”

Jacqueline Wild
Head of Group Information Management

Central component in securing the future

As one of the leading industrial companies in our business, our processes also heavily depend on the use of modern information technology. We therefore take information security very seriously and see it as a central component of our business operations. We have implemented extensive measures to ensure the security of our IT systems and networks as well as the confidentiality, integrity and availability of our data. In addition to protecting our production systems, the secure storage and processing of sensitive corporate data and protective measures against cyber attacks are crucial for the success and future security of our Company.





Ongoing adaptation of measures to the highest standards

Our primary goal with regard to information security is to constantly monitor and adapt our security measures to ensure that we are always technologically up to date and to successfully prevent, detect and combat cybersecurity threats. We strive to design our IT systems to meet the highest security standards and to protect our data and networks from attacks. Training and sensitizing our employees in dealing with sensitive data and potential attacks also play a central role for us.

Continuous training and vulnerability management

In recent years, various initiatives have been implemented together with international partners to further increase the cyber resilience of the MM Group. One example of this is the introduction of a state-of-the-art vulnerability management and end-to-end-security-incident and -event-management with the aim of identifying threats and eliminating them as quickly as possible. These projects are complemented by regular internal and external audits and certifications, such as ISO 27001. This helps us to ensure that the rules and

standards of information security in the MM Group are consistently implemented and that we reach the highest possible security standard for us as well as for our customers and partners.



Sustainable investment in cybersecurity

We are aware that information security is a dynamic issue, and therefore invest sustainably in cybersecurity to proactively ensure the security of our data and IT systems and to continuously sensitize our employees.

“As one of the world’s leading companies in the field of IT infrastructure solutions, we are impressed by the activities of the MM Group to constantly search for new technologies to support the digitalization of their business units. Kyndryl is a partner of the MM team, which we support with secure, efficient and scalable IT solutions.”

Kyndryl Austria

MM Board & Paper

Leading cartonboard producer with an attractive offer of kraft papers and uncoated fine papers

Virgin fiber-based mills MM Kwidzyn and MM Kotkamills exceeded expectations

The acquisition of the cartonboard and paper mills MM Kwidzyn (POL) and MM Kotkamills (FIN) were milestones towards more competitive large facilities for more growth.

MM Kwidzyn Poland

Product portfolio: virgin fiber-based cartonboard, kraft paper, uncoated fine paper

Utilization of a highly attractive development potential for innovative products and sustainability



New packaging line at MM Kotkamills

MM Kotkamills Finland

Product portfolio: virgin fiber-based cartonboard, Saturating Kraft Paper Absorbex®, sawn timber

Creation of an attractive range of barrier cartonboard solutions for plastic substitution; growth in Saturating Kraft Paper Absorbex®



MM Gernsbach Germany

Product portfolio:
recycled fiber-based cartonboard

Top performance due to
quality optimizations

Top performance
in recycled fiber-
based cartonboard

MM Kolicovo Slovenia

Product portfolio: virgin fiber-based cartonboard,
recycled fiber-based cartonboard

Investment focus on increasing product quality,
productivity and expansion of capacity as well as
reduction of the CO₂ footprint in 2023



MM Frohnleiten Austria

Product portfolio: recycled
fiber-based cartonboard

Investments to increase efficiency
and reduce specific energy consumption
as well as in latest production technologies
to increase product quality and capacities
in 2023

**Future
investments**
for more growth
through innovative
solutions,
sustainability
and efficiency
as cost and tech-
nology leader

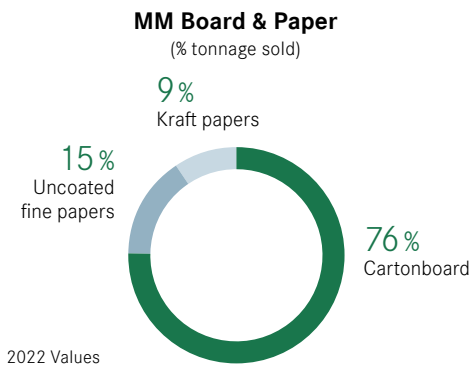
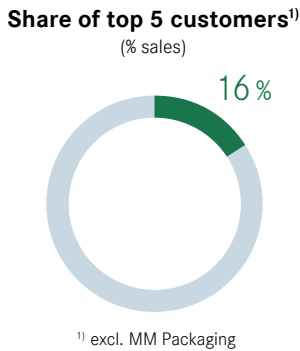
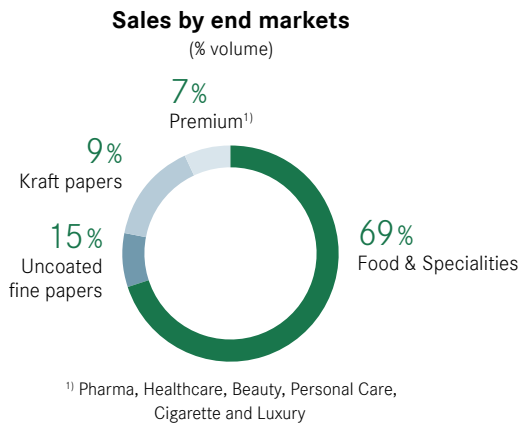
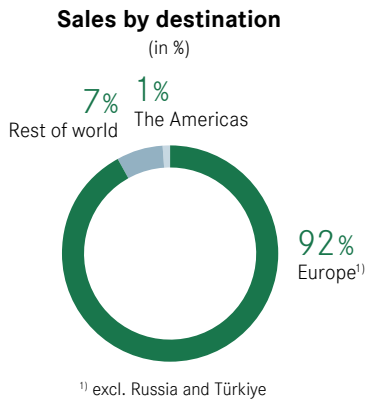
MM Neuss Germany

Product portfolio: recycled
fiber-based cartonboard

Modernization of the cartonboard
machine for a state-of-the-art liner
product range in 2023



Find out more about
MM Board & Paper –
Europe's largest
cartonboard producer
with a high-quality
paper range.



Leading cartonboard producer

MM Board & Paper is the leading cartonboard producer (excluding liquid packaging board) in Europe with a total capacity of approximately 2 million tonnes of cartonboard in six cartonboard mills. The aim is to grow faster than the market through high competitive strength from location size, innovation and sustainability.

Sustainable sales market

The products of MM Board & Paper are used primarily as raw materials for the production of packaging for fast moving consumer goods and are characterized by high functionality and sustainability. Our core business includes food packaging, packaging for household, hygiene and pharma products as well as office and laminate papers. The main customers are cartonboard packaging manufacturers in the highly fragmented European folding carton industry as well as brand owners and retailers. In view of the short-term delivery of the product to the customer and transport costs, the European market is mainly supplied from Europe.

Investing in technology, sustainability and product development to increase competitive strength and growth abilities

Key Indicators MM Board & Paper

(in millions of EUR)	2022	2021	+/-
Sales ¹⁾	2,750.0	1,561.1	+ 76.2 %
EBITDA	499.3	185.2	+ 169.6 %
Operating profit	381.0	107.7	+ 253.7 %
EBITDA margin	18.2 %	11.9 %	+ 629 bp
Operating margin	13.9 %	6.9 %	+ 695 bp
Cash flow from operating activities	244.4	108.7	+ 124.8 %
Return on capital employed	22.5 %	11.0 %	+ 1.153 bp
Capital expenditures (CAPEX)	194.3	113.1	+ 71.8 %
Depreciation and amortization ²⁾	118.3	77.6	+ 52.6 %
Employees ³⁾	4,776	4,787	- 0.2 %

	2022	2021	+/-
Tonnage sold (in thousands of tonnes)	2,389	2,092	+ 14.1 %
Cartonboard	1,803	1,834	- 1.7 %
Kraft papers	220	93	+ 137.1 %
Uncoated fine papers	366	165	+ 120.5 %
Tonnage produced (in thousands of tonnes)	2,433	2,069	+ 17.6 %
Capacity utilization	91 %	97 %	

¹⁾ incl. interdivisional sales

²⁾ incl. impairment of property, plant and equipment, and intangible assets

³⁾ as of December 31



MM GT White, bright white recycled cartonboard for demanding applications



A sustainable product portfolio



Office paper for perfect print quality



Absorbex® - saturating kraft paper for laminates

MM Packaging

A leading European folding carton producer with a global presence



Investments in modern, highly competitive growth locations

Growth investments in the United Kingdom (Deeside), Austria (Hirschwang), Romania (Blejoj) and Chile (Santiago de Chile) were successfully implemented.

Project Emerald Poland

Góra Kalwaria near Warsaw

Investment in the construction of a new state-of-the-art site for Pharma, Beauty & Personal Care in Poland with a competitive cost basis



The new digital/flexo press in Bydgoszcz (Poland) is a **milestone in packaging printing**. It combines the efficiency of flexographic printing with the possibilities of individualization of digital printing - the result: industrial production with the greatest possible flexibility.



Find out more about MM Packaging, the products and application possibilities.



Secondary pharma packaging - a further pillar and a **highly attractive growth market** for MM Packaging

Pharma packaging with high potential

The transformative acquisitions of Essentra Packaging and Eson Pac position MM Packaging as a **leading manufacturer** in the secondary pharma packaging market in Europe and the US. Planned investments in modernization for strengthened growth ability create a high development potential.

Reduction of plastic packaging gives rise to new growth opportunities with innovative solutions made from cartonboard and fiber-based packaging.

Innovations in plastic substitution



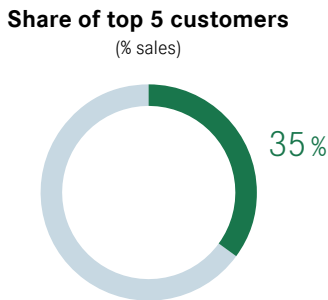
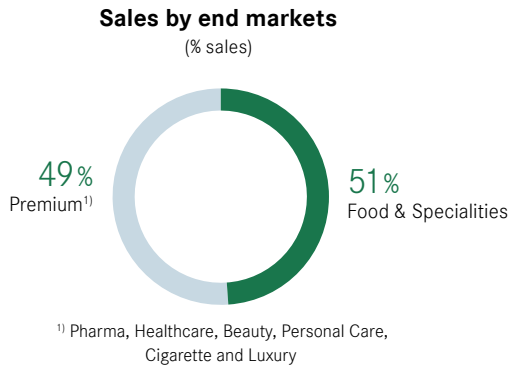
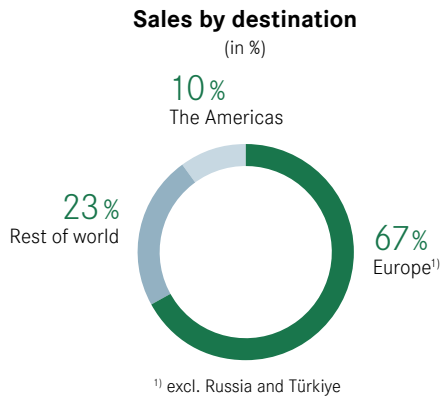
Green Peel - new alternative made from cartonboard for food trays



Moulded Pulp - new focus in the area of fiber-based packaging



Fruit baskets - sustainable fruit packaging



2022 Values



Food & Specialities

A leading folding carton producer

MM Packaging is a leading folding carton producer in Europe with a leading position also in several markets outside Europe. In 2022, MM Packaging produced around 4,056 million m² of packaging and generated sales of EUR 2,168.7 million.

Cartonboard packaging for consumer goods

The main sales area is cartonboard packages for consumer staples. With technologically dedicated locations and broad market expertise, MM Packaging's core business covers both the large volume market of Food & Specialities as well as highly specialized printing and packaging services for the Premium market. Due to transport costs and service requirements, folding carton products are produced close to the customer. MM Packaging manufactures around 80 % of its production for large multinational customers.

Growth in profitable and resilient end markets and focus on efficiency to increase profitability

Key Indicators MM Packaging

(in Mio. EUR)	2022	2021	+/-
Sales ¹⁾	2,168.7	1,641.6	+ 32.1 %
EBITDA	230.6	235.8	- 2.2 %
Operating profit	129.3	161.9	- 20.1 %
EBITDA margin	10.6 %	14.4 %	- 373 bp
Operating margin	6.0 %	9.9 %	- 390 bp
Cash flow from operating activities	55.3	161.1	- 65.6 %
Return on capital employed	8.9 %	14.4 %	- 550 bp
Capital expenditures (CAPEX)	150.8	144.7	+ 4.2 %
Depreciation and amortization ²⁾	101.3	73.8	+ 37.2 %
Employees ³⁾	10,864	7,705	+ 41.0 %
	2022	2021	+/-
Produced volume (in millions of m ²)	4,056	3,672	+ 10.4 %

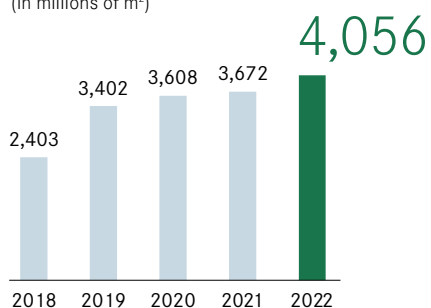
¹⁾ incl. interdivisional sales

²⁾ incl. impairment of property, plant and equipment, and intangible assets

³⁾ as of December 31

Produced volume

(in millions of m²)



Premium - Pharma



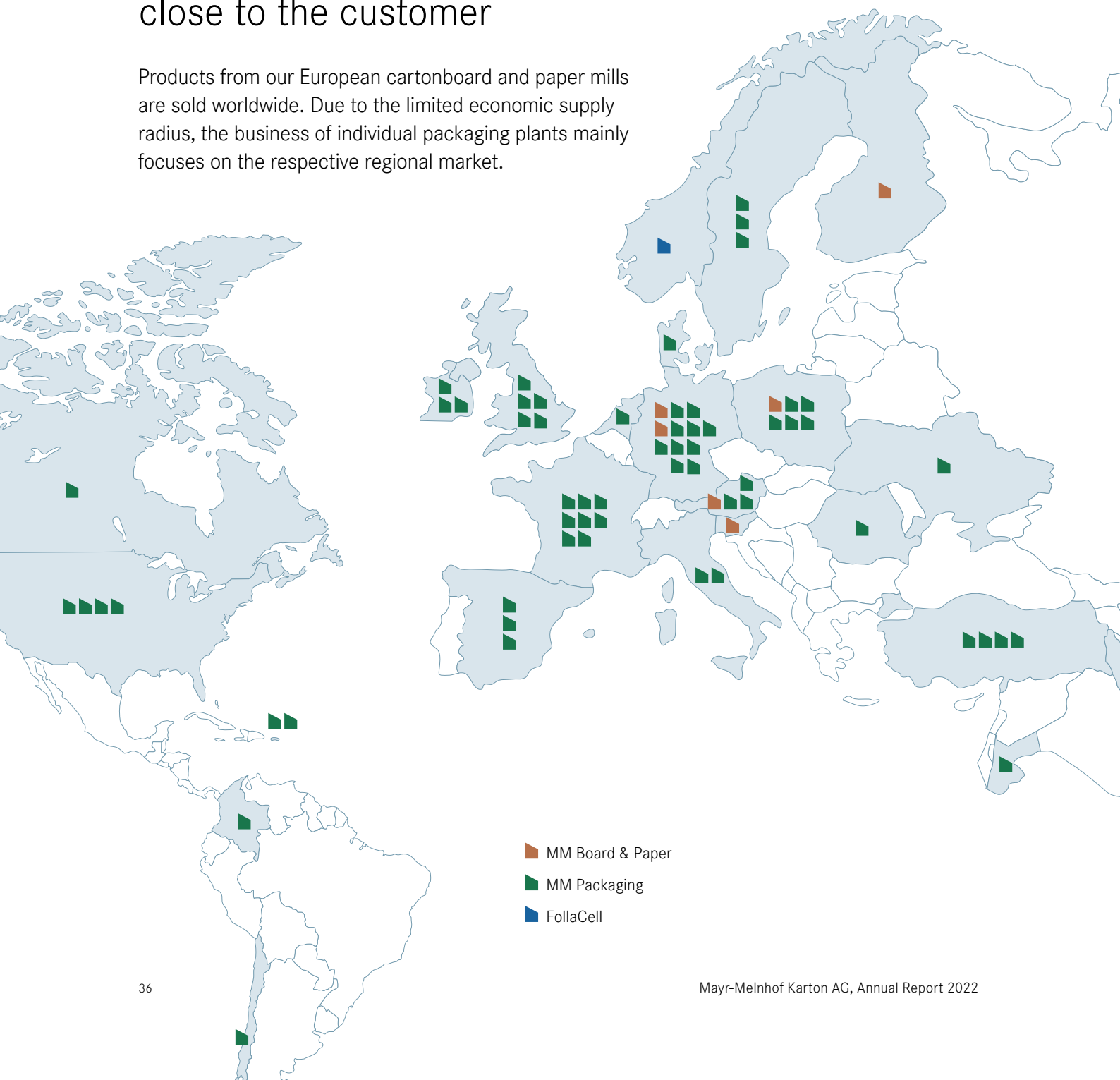
Premium - Beauty & Personal Care



Global presence, focus on Europe

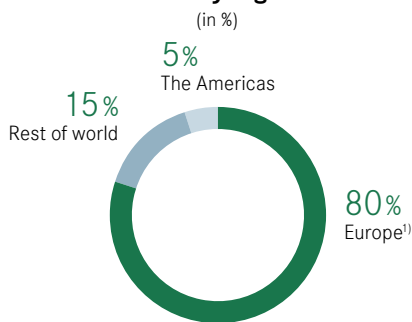
An international network of locations
close to the customer

Products from our European cartonboard and paper mills are sold worldwide. Due to the limited economic supply radius, the business of individual packaging plants mainly focuses on the respective regional market.



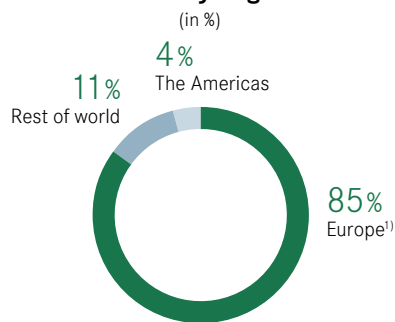
72 production sites on 3 continents
 6 cartonboard and paper mills
 1 mechanical pulp (CTMP/BCTMP) plant
 65 packaging sites
 Sales in more than 140 countries
 20 sales offices in 16 countries

Sales by region



¹⁾ excl. Russia and Türkiye

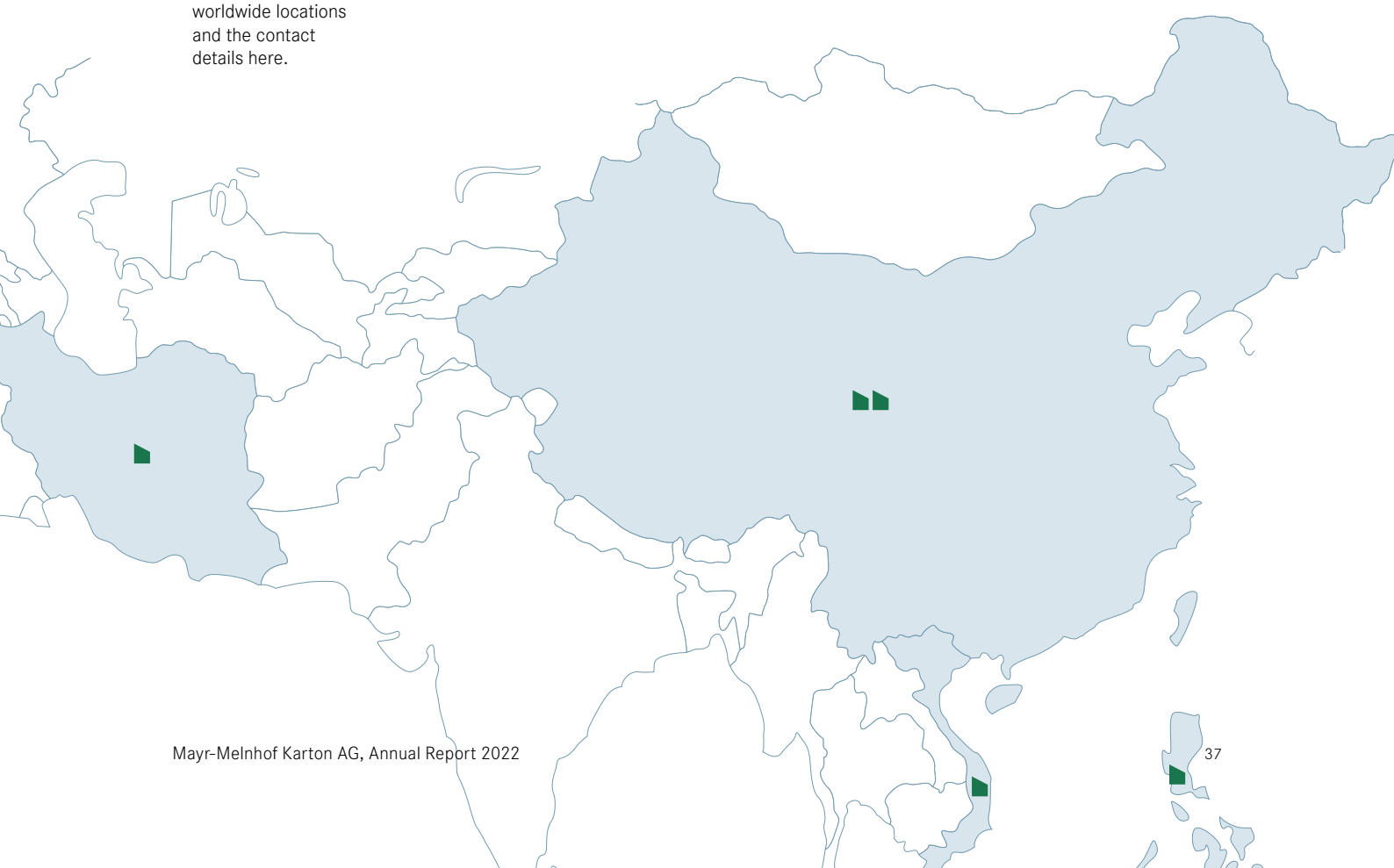
Sales by origin



¹⁾ excl. Russia and Türkiye



You can find our worldwide locations and the contact details here.



MM Shares

In a stock market year 2022, which was generally characterized by increasing uncertainties, the MM share recorded a price decline in line with the entire Austrian market after a short term increase at the beginning of the year. The overall annual performance amounted to -14.4 %. After a share price of EUR 176.60 at the end of 2021 and the distribution of a dividend of EUR 3.50 per share, the year 2022 closed with a share price of EUR 151.20. On January 10, 2022, the share had reached a historic high of EUR 192.00.

The positioning of the MM Group as a leading global manufacturer of cartonboard and folding cartons with a long-term profit and growth orientation is the focus of our ongoing Investor Relations activities. Our strategic orientation as a sustainable company in avoiding plastic waste through innovative, recyclable packaging and paper products is considered highly attractive especially by ESG-oriented investors. In 2022, particular interest was shown in the acquisitions of Essentra Packaging and Eson Pac and the associated significant expansion of the growing and resilient business in the Pharma & Healthcare sector. We continued to actively maintain relationships with our investors and the interested public via webcasts and a large number of virtual and physical conferences and discussions. We attach great importance to the constructive feedback from the dialog with capital market participants, which we consider to be extremely valuable on our path into the future. The positive business development in a generally difficult environment as well as the strategic positioning of the MM Group also convinced analysts of international banks and brokerage houses to issue overall positive recommendations.

The share

The MM share has been listed on the Vienna Stock Exchange for 28 years. The issue price on April 21, 1994 amounted to EUR 26.16. The long-time listing on the ATX Prime requires the fulfillment of special additional requirements, such as stricter transparency criteria and minimum capitalization.

As “green investment”, the MM share has been part of the Natur-Aktien-Index (nx-25) ever since 1997 - for 25 years now. This index comprises 25 international companies that are selected according to particularly strict ecological and social criteria. In addition, the MM share is part of the newly launched AKTIONÄR Zero Plastic Index since 2021, which includes eight European companies that contribute to containing plastic consumption with their alternative concepts.

The share capital of Mayr-Melnhof Karton AG, amounting to EUR 80 million, is divided into 20 million bearer shares, applying the principle of “one share – one vote”.

Stock market year 2022

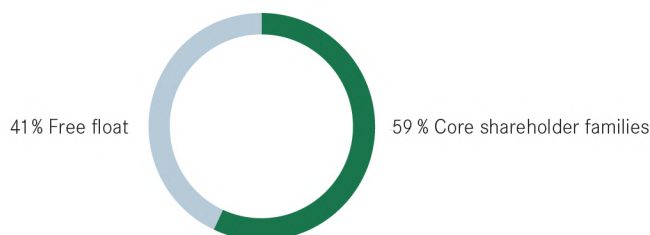
In 2022, international stock markets were characterized by high uncertainty and volatility. The war in Ukraine with the ensuing energy crisis as well as ongoing supply chain problems and the sharp rise in inflation rates were major contributory factors. The latter prompted central banks to gradually raise interest rates again in the course of a more restrictive monetary policy after years of zero interest rates. The stock markets only recovered gradually towards the end of the year.

As a result, the EURO STOXX 50 closed with a decline of -11.74 % and the DAX with -12.35 % compared to year-end 2021. The Dow Jones Industrial (DJI) recorded a minus of 8.78 %. With an annual performance of -19.03 %, the Austrian benchmark index ATX recorded a significantly weaker performance.

Stable shareholder structure

The shareholder structure of Mayr-Melnhof Karton AG is characterized by a high degree of stability. The largest shareholders are the core shareholder families who hold approximately 59 % of the share capital. The remaining 41 % of the shares are in free float and are mainly held by long-term oriented institutional investors in Europe and the US.

Shareholder structure (in %)



Continuous dividend policy

Our dividend policy provides for a continuous distribution to the Company's shareholders in line with profit performance. Based on the positive profit development in the business year 2022, the Management Board will propose a dividend of EUR 4.20 per share to the 29th Ordinary Shareholders' Meeting on April 26, 2023, after EUR 3.50 per share were paid for 2021. This corresponds to a dividend payment totaling EUR 84.0 million (2021: EUR 70.0 million) for the business year 2022 and a payout ratio of 24.43 % (2021: 37.00 %). Based on the average share price in 2022, a dividend yield of around 2.7 % was achieved (2021: 2.0 %).

Investor Relations

A sustained active, direct and open dialog with our institutional and private investors, analysts, journalists and the interested public has always been at the center of our Investor Relations program, which we continued to pursue with great commitment in 2022.

In addition to the regular disclosure required by law, the exchange with current and potential investors took place, in particular by participating in virtual and physical investor conferences with a large number of individual meetings.

The approach of our Investor Relations work consists in providing all capital market participants with an accurate image of the Group at all times by sharing comprehensive, timely and transparent information in order to facilitate an appropriate valuation of the MM share and to promote a long-term relationship of trust with shareholders and the public.

In this context, we attach the highest priority to the principle of treating all shareholders equally. Therefore we always publish all share-price-relevant and current information simultaneously and identically via an electronic distribution system and on the website of Mayr-Melnhof Karton AG.

The Chairman of the Management Board comments on the current operating and strategic development of the Group on a quarterly basis in publicly accessible audio and/or video webcasts. Thereby, the annual and half-year results are presented on a regular basis in a video webcast and a subsequent CEO conference call.

Service for shareholders

We offer shareholders and interested parties the possibility to register for regularly receiving the Company's reports and press releases on our website (<https://www.mm.group/en/publication-mailing>).

Furthermore, our Investor Relations department is available to answer any questions you may have.

We aim at continuously improving our Investor Relations activities and are therefore always grateful for any suggestions for optimization.

Your contact at Investor Relations

Stephan Sweerts-Sporck

Phone: +43 1 501 36 91180

E-Mail: investor.relations@mm.group

Website: <https://www.mm.group>

Information about MM shares

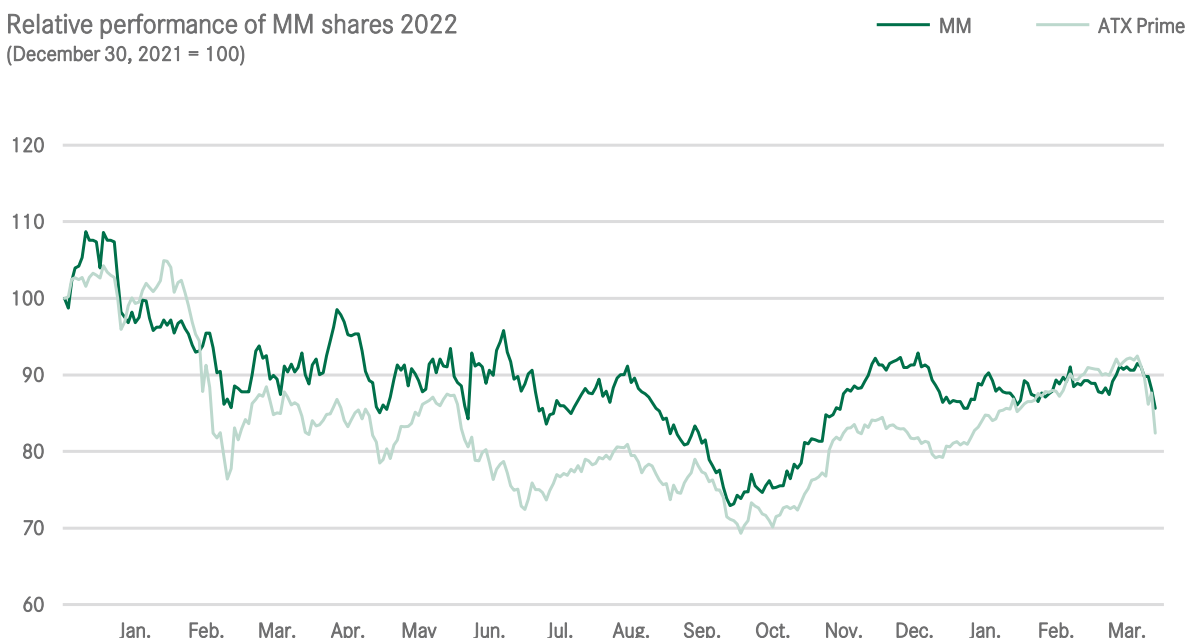
ISIN securities identification number: AT0000938204

Reuters: MMKV.VI

Bloomberg: MMK:AV

Share price chart

Relative performance of MM shares 2022
(December 30, 2021 = 100)



Share performance indicators

Stock price per share (in EUR)	2020	2021	2022
High	166.20	184.20	192.00
Low	93.50	162.20	128.80
Year-end	165.00	176.60	151.20

Stock performance (as of Dec. 31)			
-1 month	+ 11.8 %	+ 2.9 %	- 6.7 %
-3 months	+ 11.3 %	+ 7.0 %	+ 14.6 %
-9 months	+ 46.0 %	+ 0.7 %	- 6.3 %

Relative performance (year-end)			
MM Shares	+ 38.0 %	+ 7.0 %	- 14.4 %
ATX Prime	- 12.1 %	+ 37.0 %	- 19.1 %

Share performance indicators (in EUR)			
Earnings per share	8.06	9.46	17.19
Total equity per share	77.12	82.79	97.69
Dividend per share	3.20	3.50	4.20 ³⁾
Dividend (in millions of EUR)	64.00	70.00	84.00 ³⁾
Dividend yield per average share price	2.4 %	2.0 %	2.7 %

Stock market data (Vienna Stock Exchange)			
Trading volume ¹⁾ (in EUR)	3,251,689	2,348,276	2,652,290
Number of shares issued	20,000,000	20,000,000	20,000,000
Free float ²⁾	8,596,720	8,596,720	8,296,720
Market capitalization ²⁾ (in millions of EUR)	3,300	3,532	3,024
ATX Prime weighting ²⁾ (in %)	3.37 %	2.66 %	2.74 %

¹⁾ daily average

²⁾ as of Dec. 31

³⁾ proposed

Consolidated Corporate Governance Report

As an internationally active, listed company, the MM Group is committed to responsible Corporate Governance focusing on sustainable value added. We consider this to be an essential prerequisite for achieving our corporate goals. We therefore ensure that Corporate Governance is consistently practiced and further developed in all areas of the Company. This includes the whole management and control system of the Company with the approach of promoting trust in the MM Group among our employees, shareholders, business partners and the public and ensuring a high level of transparency.

This present report provides information on the disclosures required by sections 243 c and 267 b of the Austrian Commercial Code.

COMMITMENT TO THE AUSTRIAN CORPORATE GOVERNANCE CODE

The MM Group has voluntarily committed to compliance with the Code in its respectively applicable version since the Austrian Corporate Governance Code (Österreichischer Corporate Governance Kodex – ÖCGK) became effective in 2002. The Code is based on the provisions of Austrian stock corporation, stock exchange and capital market laws, EU recommendations as well as the guidelines contained in the OECD Principles of Corporate Governance. The Code is regularly reviewed against the background of national and international developments and adjusted as necessary. The current Austrian Corporate Governance Code can be downloaded from the website of the Austrian Working Group for Corporate Governance at www.corporate-governance.at. The compliance with the Corporate Governance Code is subject to an annual internal evaluation provided by the MM Group. Furthermore, an external evaluation of compliance with C rules is carried out every three years, which was last performed in 2021 in order to rotation.

The implementation and evaluation for the business year 2022 is based on the Code's version of January 2023. The MM Group continues to comply with all legal provisions without any restrictions. Almost all additional C Rules and R Rules (Recommendations) contained in the Code, which do not require any explanation in case of deviations, have been complied with.

The Company gives the following explanations for deviations from C Rules for 2022:

Rule 27a The Management Board contracts do not contain any provisions stipulating that the economic situation is to be taken into account in the event of the premature retirement of a Management Board member. However, due to the long-term profit-sharing scheme, future developments are taken into account by means of surcharges or deductions. When concluding new Management Board contracts, this requirement of the ÖCGK should also be taken into account.

COMPOSITION OF THE BOARD

The Management Board

Peter Oswald

Chairman, CEO	Strategic and profit-responsible management of the entire Group and in particular the areas:
Member of the Management Board	
since April 1, 2020	
appointed until March 31, 2025	
born 1962	<ul style="list-style-type: none"> • Group strategy • Group organization • Human resources of the Group and Board of the subsidiaries • External and internal communication and Investor Relations • Communication with the Presidium and the Supervisory Board members • Sustainability including occupational safety • Determination of representatives at associations • Primary profit responsibility for the division Board & Paper (including sales and marketing, production, innovation and product development) • Primary profit responsibility for the division Packaging (including sales and marketing, production, innovation and product development) • Procurement

Franz Hiesinger

CFO	<ul style="list-style-type: none"> • Finance and all financing matters • Group reporting and accounting as well as controlling • Merger and acquisition matters • Risk management, insurances • Legal and tax matters including compliance • Information management (IT) • Internal Audit
Member of the Management Board	
since October 1, 2017	
appointed until September 30, 2025	
born 1965	

Andreas Blaschke, born in 1961, was a member of the Management Board from May 14, 2002 to October 31, 2022. His agendas, primary profit responsibility for the division Packaging (including sales and marketing, production, innovation and product development), were taken over by Peter Oswald.

The members of the Management Board do not hold any mandates in Supervisory Boards outside the Group.

The Supervisory Board

Rainer Zellner

Chairman since April 29, 2015 born 1947	Independent entrepreneur; Chairman of the Supervisory Board of Mayr-Melnhof Holz Holding AG, Leoben
--	---

Johannes Goess-Saurau

1 st Deputy Chairman since May 7, 2008 Member of the Supervisory Board since May 18, 2005 born 1955	Manager of his own companies
--	------------------------------

Nikolaus Ankershofen

2 nd Deputy Chairman since April 26, 2017 Member of the Supervisory Board since April 28, 2010 born 1969	Lawyer and partner at Ankershofen Goëss Hinteregger Rechtsanwälte OG; Supervisory Board member at Mayr-Melnhof Holz Holding AG, Leoben; Management Board member of several private trusts
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Alexander Leeb

Member of the Supervisory Board since May 7, 2008 born 1959	Chairman of the Supervisory Board at Andritz AG, Graz; Deputy Chairman of the Supervisory Board at Plansee Holding AG, Reutte; Chairman of the Board of Trustees of LGT Venture Philanthropy Foundation, Vaduz
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Georg Mayr-Melnhof

Member of the Supervisory Board since May 7, 2008 born 1968	Employee of the archdiocese of Salzburg
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Ferdinand Mayr-Melnhof- Saurau

Member of the Supervisory Board since April 29, 2020 born 1987	Managing partner at various real estate investment and real estate development companies; Management Board member at Oskar Vogl Privatstiftung, Graz
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Klaus Rabel

Member of the Supervisory Board since April 29, 2020 born 1961	Auditor and tax consultant, University Professor of Corporate Valuation and Value-Oriented Management at the Institute of Corporate Accounting and Taxation at the Karl-Franzens-University, Graz; Chairman of the Expert Committee for Business Valuation of the Chamber of Tax Consultants and Certified Public Accountants, Vienna; Member of the Europe MSR Board of the International Valuation Standards Council (IVSC), London; Management Board member of Austrian family trusts and Supervisory Board member in Austrian family-owned companies
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Delegated by the works council:

Andreas Hemmer

Member of the Supervisory Board since October 20, 2009 Employee representative
born 1968

Gerhard Novotny

Member of the Supervisory Board since May 10, 1995 Employee representative
born 1963

Franz Rappold, born in 1952, was a member of the Supervisory Board from April 29, 2020 to April 26, 2022.

The current mandates of all members of the Supervisory Board elected by the Annual General Meeting will expire at the 31st Ordinary Shareholders' Meeting in 2025 which will resolve on the discharge for the financial year 2024. The mandates of the employees' representatives are awarded for an indefinite period of time.

Members of the Committees of the Supervisory Board

Presidium (Committee for Management Board Issues)

Rainer Zellner, Chairman
Johannes Goess-Saurau
Nikolaus Ankershofen

Audit Committee

Klaus Rabel, Chairman
Rainer Zellner
Johannes Goess-Saurau
Nikolaus Ankershofen
Gerhard Novotny

Members of the Supervisory Board with additional Supervisory Board mandates in publicly listed companies

Alexander Leeb
Chairman of the Supervisory Board, Andritz AG, Graz

Independence of the members of the Supervisory Board

The Supervisory Board is committed to the guidelines set out in annex 1 of the Austrian Corporate Governance Code when determining the criteria of their independence:

A Supervisory Board member must not maintain, or have maintained in the past year, any business relations with the Company or any of its subsidiaries with significance for the member of the Supervisory Board. This also applies to relationships with companies in which a member of the Supervisory Board has a considerable economic interest, but not to the performance of institutional functions in the Group. The approval of individual transactions by the Supervisory Board in accordance with L Rule 48 (Company Contracts with Members of the Supervisory Board outside their activity in the Supervisory Board) does not automatically qualify the person as not independent.

The Supervisory Board member must not have acted as an auditor of the Company or have owned a share in the auditing company or have worked there as an employee in the past three years.

The Supervisory Board member must not be a member of the Management Board of another company in which a member of the Company's Management Board is a Supervisory Board member.

The Supervisory Board member must not be closely related (direct offspring, spouse, life partner, parent, uncle, aunt, brother, sister, niece, nephew) to a member of the Management Board or employees in leading positions, the auditor, or employees of the auditing company.

All members of the Supervisory Board have declared their independence in accordance with these criteria. Consequently this also applies to all members of the Committees of the Supervisory Board.

In addition, the members of the Supervisory Board deal with the provisions of the Austrian Corporate Governance Code regarding conflicts of interest at least once a year. Furthermore, new members of the Supervisory Board receive detailed information on the avoidance of conflicts of interest at the start of their activities.

This independence ensures that stakeholder concerns can also be taken into account on a regular basis, without any conflicts of interest.

Representation of interests of a share > 10 % in Mayr-Melnhof Karton AG

In the Supervisory Board of Mayr-Melnhof Karton AG, there are two independent members representing a shareholding of more than 10 %:

Nikolaus Ankershofen
Ferdinand Mayr-Melnhof-Saurau

Contracts between members of the Supervisory Board and the Company subject to approval

In the financial year 2022, the following contracts between Mayr-Melnhof Karton AG and individual members of the Supervisory Board were subject to approval:

Nikolaus Ankershofen

Ankershofen Goëss Hinteregger Rechtsanwälte OG, where Nikolaus Ankershofen is lawyer and partner, acts as a legal advisor to Mayr-Melnhof Karton AG on an ad-hoc basis. These mandates mainly relate to employment law matters between the Management Board and Mayr-Melnhof Karton AG. Ankershofen Goëss Hinteregger Rechtsanwälte OG charges on the basis of hourly rates customary for lawyers. In the financial year 2022, fees totaling thous. EUR 15 were charged.

Franz Rappold

RAFRA Consulting GmbH has provided consulting services on the basis of a consulting agreement with Mayr-Melnhof Karton AG, which were not connected to the activities of Franz Rappold as a member of the Supervisory Board. In the financial year 2022, fees totaling thous. EUR 25 were invoiced until the date of his resignation from the Supervisory Board on April 26, 2022.

REMUNERATION OF THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD

Since the financial year 2020, information on the remuneration of the Management Board and the main contractual conditions, as well as the remuneration of the Supervisory Board have been included in the Company's remuneration report, which is presented annually to the Shareholders' Meeting, and in the remuneration policy.

INFORMATION ON THE PROCEDURES OF THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD

The Management Board manages the business in accordance with the law, the bylaws and the Articles of Association of the Company. The latter are available on the Company's website at <https://www.mm.group/en/about-us/responsibility/corporate-governance/>. The bylaws of the Management Board govern the assignment of responsibilities as well as the cooperation within the Management Board and include a list of business cases which require the prior consent of the Supervisory Board. The members of the Management Board cooperate closely as colleagues, informing one another of all significant measures and occurrences within their respective areas of operation. The Management Board of Mayr-Melnhof Karton AG holds regular Board meetings to discuss material Group- and division-relevant topics. In developing and implementing the corporate strategy, the Management Board takes into account aspects of sustainability and associated opportunities and risks with regard to the environment, social issues and corporate governance. The Chairman of the Management Board is responsible for chairing and preparing the meetings and for exchanging information with the Supervisory Board.

Type and decision-making power of the Committees of the Supervisory Board

The Supervisory Board has established the following Committees constituted by its members:

Presidium (Committee for Management Board Issues)

The principal task of the Presidium is to discuss the Company's strategy and orientation on a continuous basis and to prepare resolutions for the Supervisory Board concerning all strategic matters. Furthermore, this Committee decides on issues concerning the Management Board in accordance with statutory regulations and also fulfills the functions of the Nomination and Compensation Committee. The quality of the Committee's work is guaranteed by the long-standing experience and know-how of its members in the field of remuneration policy.

Audit Committee

The Committee's decision-making power derives from statutory regulations. The quality of the Committee's work is guaranteed by the long-standing experience and know-how of its members in the fields of finance, accounting, and reporting.

It is guaranteed that the Supervisory Board and the Committees are able to take decisions promptly in urgent cases. The Chairmen of the Committees inform the Supervisory Board on a regular basis about the activities of the Committees.

Focus of the Supervisory Board

The Supervisory Board convened in eight meetings in the financial year 2022, with the participation of the Management Board, and fulfilled its tasks and obligations in accordance with the law, the Articles of Association and the bylaws. All members of the Supervisory Board attended at least seven meetings.

In addition to the challenging developments in the current business in view of coping with the massive cost inflation for raw materials and energy as well as temporary supply bottlenecks, the discussions focused in particular on structural and strategic measures to strengthen competitiveness and the abilities to grow as well as to increase value added. In this context, a particular focus was placed on the significant expansion of the secondary pharma packaging business with the aim of achieving a leading global position in a growing and resilient market with attractive value enhancement potential through the acquisition of Essentra Packaging and Eson Pac. Another focus was placed on accompanying the integration of the cartonboard and paper sites Kwidzyn, Poland, and Kotkamills, Finland, acquired in mid-2021, as well as the most extensive investment program to date in state-of-the-art technology for increased efficiency, sustainability, and product quality at selected major sites of both divisions.

With regard to the structural enlargement and future orientation of the Group, the Supervisory Board in 2022 dealt in particular with an extension of the management team of MM Packaging, after a strengthened management team had already been established at MM Board & Paper in the previous year.

Furthermore, topics of financing as well as sustainability, risk evaluation, corporate governance and compliance were discussed. In the area of capital market compliance, an update training took place for the Supervisory Board. In addition, the Supervisory Board continued to monitor the impact of the Covid-19 pandemic on business performance.

The Supervisory Board carried out a self-evaluation for the financial year 2022 based on a questionnaire, with the result that the activity of the Supervisory Board was assessed to have been generally efficient. The regular exchange of information as well as the discussion of major topics in cooperation with the Management Board and the Group Auditor contribute significantly thereto. Discussions in the Supervisory Board and Management Board meetings were again characterized by openness and a high degree of constructiveness in 2022. All participants had sufficient opportunities to ask questions and participate in discussions.

Focus of the Committees of the Supervisory Board

In 2022, the Presidium (Committee for Management Board Issues) met seven times. It dealt especially with strategic development through acquisitions, investments, restructuring, matters relating to the Management Board as well as management succession and prepared the meetings of the Supervisory Board.

In addition, the implementation and review of the remuneration policy and the reporting on remuneration were taken care of (see remuneration report 2022 at <https://www.mm.group/en/for-investors/reports/>).

In 2022, the Audit Committee held two meetings and fulfilled its statutory duties. A focus was placed on dealing with the Group financial statements and the individual financial statements for 2021 as well as the preparation of the Group financial statements and the individual financial statements for 2022. In this context, the consolidated non-financial report according to section 267a of the Austrian Commercial Code and its audit were also discussed, as well as details concerning the scope of non-auditing services rendered by the auditors, and key audit matters were determined. Klaus Rabel, a financial expert, is Chairman of the Audit Committee.

Due to the regular exchange between the Chairman of the Audit Committee and the Group Auditor outside the meetings, a discussion during the meetings without the participating Management Board members was not necessary.

MEASURES TO PROMOTE WOMEN AND DESCRIPTION OF THE CONCEPT OF DIVERSITY

As a sustainably operating company, the MM Group is more than ever committed to taking diversity into account as a long-term success factor. The MM Group's concept of diversity is stated in the Code of Conduct. It is laid down there that we commit ourselves to creating a working environment throughout the Group that is characterized by openness and mutual respect. We regard the diversity of our employees as an essential resource and as an enrichment that enables us to perform our tasks even more effectively and innovatively. We oppose any discrimination or harassment based on gender, ethnic origin, skin color, religion, national origin, disability or sexual orientation. Employees and applicants are assessed in accordance with the principle of equal treatment.

When filling management positions in the Company, the MM Group generally follows the recommendation of the Equal Opportunities Act to pay attention to diversity and to strive in particular for an appropriate distribution of gender, age and competence. Our strategic objective is to achieve the best possible diversity at the top management level and to further increase the proportion of women in management positions. Women hold more and more top management positions within the MM Group. These include in particular the areas of Human Resources, Information Management (IT), Marketing Communication and Legal as well as the management of individual subsidiaries. Within the framework of internal management development, we attach great importance to further expanding the share of female participants. More flexible work arrangements help to improve the compatibility of career and family. Overall, the share of women in the MM Group amounted to around 25 %. However, due to MM's activity in heavy industry and work in shifts, the share of women in the Group and in recruitment tends to be low. Being an attractive employer for women in both technical and commercial occupations is our long-term aspiration.

At present, the Supervisory Board consists of nine men and the Management Board, the only employees of the listed holding company, of two. In the election of Supervisory Board members, attention is paid to the professional and personal qualifications, independence and impartiality of the candidates and to a well-balanced composition. Achieving a more balanced gender ratio of the Supervisory Board remains our objective.

Details on employee development can be found in the "People" section of the non-financial report.

EXTERNAL EVALUATION

The Code (ÖCGK) provides for a regular (at least every three years) external evaluation of the Company's compliance with the C rules (Comply or Explain). The most recent evaluation was carried out by PwC Wirtschaftsprüfung GmbH, Vienna in the course of the 2021 annual audit. The review of compliance with the rules of the Code regarding the audit was conducted by Georg Eckert, professor at Innsbruck University. As a result of this evaluation, the auditors have determined that the declaration given by Mayr-Melnhof Karton AG regarding compliance with the Corporate Governance Code corresponds to the actual conditions. The next external evaluation is planned for the corporate governance report of the year 2024.

EVENTS AFTER THE BALANCE SHEET DATE

There were no changes of matters requiring reporting between the reporting date and the preparation of the corporate governance report.

Vienna, March 13, 2023

The Management Board

Peter Oswald m. p.

Franz Hiesinger m. p.

Report of the Supervisory Board

In the financial year 2022, the Supervisory Board fulfilled its responsibilities pursuant to statutory provisions, the Articles of Association and bylaws. In addition to the challenging developments in the current business in view of coping with the massive cost inflation for raw materials and energy as well as temporary supply bottlenecks, the discussions focused in particular on structural and strategic measures to strengthen competitiveness and the abilities to grow as well as to increase value added. In this context, a particular focus was placed on the significant expansion of the secondary pharma packaging business with the aim of achieving a leading global position in a growing and resilient market with attractive value enhancement potential through the acquisition of Essentra Packaging and Eson Pac. Another focus was placed on accompanying the integration of the cartonboard and paper sites Kwidzyn, Poland, and Kotkamills, Finland, acquired in mid-2021, as well as the most extensive investment program to date in state-of-the-art technology for increased efficiency, sustainability, and product quality at selected major sites of both divisions.

With regard to the structural enlargement and future orientation of the Group, the Supervisory Board in 2022 dealt in particular with an extension of the management team of MM Packaging, after a strengthened management team had already been established at MM Board & Paper in the previous year.

Furthermore, topics of financing as well as sustainability, risk evaluation, corporate governance and compliance were discussed. In the area of capital market compliance, an update training took place for the Supervisory Board. In addition, the Supervisory Board continued to monitor the impact of the Covid-19 pandemic on business performance.

The Supervisory Board would like to thank Andreas Blaschke, who resigned from the Management Board in the 4th quarter of 2022 after more than three decades with MM and 21 years on the Management Board (for the division Packaging), for his great commitment to the international expansion of the MM Group and his loyalty over many years.

In an extraordinary shareholders' meeting convened by the Supervisory Board in December, an amendment to the Articles of Association was adopted to the effect that the casting vote of the Chairman of the Management Board is suspended as long as the Management Board consists of two members, as is currently the case.

Ongoing activities of the Supervisory Board

During the financial year 2022, the Supervisory Board convened in eight meetings with the participation of the Management Board. All members of the Supervisory Board attended at least seven meetings. Furthermore, the Presidium (Committee for Management Board Issues) convened seven times, the Audit Committee met twice.

The meetings of the Supervisory Board and the Committees always offered sufficient opportunity to discuss individual agenda items and timely submitted documents in detail.

The interaction of capital and employee representatives within the Supervisory Board was characterized by a constructive atmosphere.

The Management Board has complied with its duty to provide information and has informed the Supervisory Board regularly, promptly and in detail, both in writing and verbally, about the position and development of the Company and its subsidiaries.

Also between the meetings, the Chairman of the Supervisory Board and the Chairman of the Management Board had regular exchanges and discussed the progress of business, strategy, and the Company's risk position. The Chairman of the Audit Committee and the Chief Financial Officer were also in ongoing contact.

Information on the composition and procedures of the Supervisory Board and its compensation can be found in the consolidated corporate governance report and the remuneration report.

Audit 2022

The annual financial statements and the management report of Mayr-Melnhof Karton AG for the year ending December 31, 2022, including accounting, were audited by PwC Wirtschaftsprüfung GmbH, Vienna. The same applies to the consolidated annual financial statements which were prepared in accordance with IFRS and supplemented by the management report for the Group and further notes pursuant to section 245 a of the Austrian Commercial Code. The audit confirmed that accounting, the annual financial statements, the management report as well as the consolidated annual financial statements and the management report for the Group comply with the legal requirements and the Articles of Association and, in all material respects, convey a fair picture of the financial position, the financial performance, and cash flows. The audit provided no reason for query, and the auditors duly issued an unqualified opinion for 2022.

The Supervisory Board has examined the annual financial statements and the management report of Mayr-Melnhof Karton AG as of December 31, 2022 as well as the consolidated financial statements and the Group management report of Mayr-Melnhof Karton AG as of December 31, 2022 in accordance with the legal requirements. The final result of the audit by the Supervisory Board did not give rise to any objections.

The Supervisory Board has complied with its statutory audit obligation concerning the consolidated corporate governance report 2022 and the consolidated non-financial report 2022. Additionally, a limited assurance engagement of the consolidated non-financial report 2022 was performed. Based on the procedures performed, nothing has come to the attention of PwC Wirtschaftsprüfung GmbH, Vienna, that gives reason to believe that the consolidated non-financial report 2022 of Mayr-Melnhof Karton AG has not been prepared in accordance with the requirements of section 267 a of the Austrian Commercial Code in all material aspects.

Approval of annual financial statements, consolidated annual financial statements and distribution of profit

The Supervisory Board concurs with the annual financial statements, the management report, the consolidated corporate governance report, the consolidated non-financial report according to section 267 a of the Austrian Commercial Code as well as the consolidated annual financial statements and the management report for the Group and hereby approves the annual financial statements as well as the consolidated annual financial statements of Mayr-Melnhof Karton AG as of December 31, 2022. Thus, the 2022 annual financial statements of Mayr-Melnhof Karton AG are adopted in accordance with section 96 (4) of the Austrian Stock Corporation Act.

The Supervisory Board has considered and approved the Management Board's proposal regarding the distribution of the profit for the financial year 2022.

The members of the Supervisory Board extend their gratitude to the Management Board and all employees of the MM Group for their excellent performance and great dedication in this particularly challenging financial year 2022. In addition, the Supervisory Board would like to thank the shareholders for the trust they have placed in the Company.

Vienna, March 2023

Rainer Zellner
Chairman of the Supervisory Board

Management Report

1 POSITIONING OF THE MM GROUP AND THE DIVISIONS

Group

Leading in Consumer Packaging

The MM Group (MM) is a leading global producer of cartonboard and folding cartons for consumer goods with an attractive offer in kraft papers and uncoated fine papers for various end applications. MM has a long-term orientation and promotes sustainable development through innovative, recyclable packaging and paper products.

After MM has moved with the MM Board & Paper division into the group of European leading suppliers of virgin fiber-based cartonboard with the strategic acquisitions of the cartonboard and paper mills MM Kwidzyn and MM Kotkamills in 2021, alongside to its already leading European position in recycled fiber-based cartonboard, the strategy to gain a stronger presence in the resilient and growing market of secondary pharma packaging was pursued in 2022 with the acquisition of Essentra Packaging and Eson Pac. The MM Packaging division is thus not only a leading producer of folding cartons in Europe, but also holds a leading market position in several countries outside Europe.

Both divisions of the MM Group, MM Board & Paper and MM Packaging, are managed with independent profit responsibility and supply each other at arm's length. In 2022, MM Board & Paper supplied around 15 % of its cartonboard sales to MM Packaging. The majority of cartonboard and paper production is however sold outside the Group. MM Packaging bought more than one quarter of the tonnage processed internally from MM Board & Paper.

Sustainability and circular economy – part of our business model

Demand for cartonboard and cartonboard packaging correlates to a high extent with private consumption, especially of daily consumer goods, and therefore shows a relative resilience.

Cartonboard is mainly used as a raw material for the production of folding carton packaging. Folding cartons are, besides plastics, the most important primary packaging material for everyday consumer goods and in particular fulfill sustainability criteria. In addition to the attractive presentation of the consumer goods and their protection, folding carton packaging is characterized especially by its sustainable production from renewable fiber materials that can be recycled many times. A responsible circular economy is thus an integral part of the MM Group's business.

Global presence – regional focus on Europe

Due to transport costs and service demands, the business of MM Packaging has a mainly regional character, whereby in addition to our production focus in Europe we are also present in North and South America and have local productions in individual Asian countries. Although we also sell our European cartonboard and paper production over longer distances worldwide, the focus of this business is also on Europe, as global cartonboard trade is of only minor importance.

Kraft papers are sold in particular to the food/gastronomy industry and the laminate industry, uncoated fine papers (office and printing papers) especially to paper/office supply retailers in Europe.

Focus on growth and value creation through sustainability, innovation and efficiency

The creation of long-term growth perspectives and value are at the center of the strategic orientation of the MM Group. Improved competitiveness through economies of scale and state-of-the-art technology as well as the focus on sustainability and innovation are to contribute significantly in this direction.

Following the acquisition of two large sites in the Board & Paper division in 2021, MM Packaging made its strategic entry into the resilient and growing market for pharma packaging in 2022, with the objective of exploiting attractive value enhancement potential and synergies in the following years. In parallel, production at the smaller cartonboard machine in Kolicvevo was discontinued in the 4th quarter of 2022 in order to increase structural efficiency, after disposal of three small cartonboard mills in the two previous years. In addition, the structures in the Packaging division are also continuously adjusted to market requirements.

In 2021, MM launched the most extensive investment program to date, comprising a large number of projects focusing on growth, cost efficiency and technological innovation at major competitive sites of both divisions. In 2022, these measures could already contribute to further organic growth in the Packaging division. In contrast, the largest investments to date in state-of-the-art technology, product development and sustainability will be implemented in 2023 in the division MM Board & Paper at the sites Frohnleiten, Neuss and Kolicvevo.

With the strategic transformation of MM, not only the producing units are strengthened, but also the central Group functions have taken a significant development step forward in order to secure the newly adopted size dimension and to systematically utilize potentials. In this context, the importance of sustainability and innovation as differentiation criteria on the market is particularly taken into account by using modern systems. In this way, MM also wants to seize the opportunities arising from the replacement of plastic packaging by recyclable packaging. A comprehensive harmonization and optimization of systems and processes in the course of digitalization aims at controlling the value creation process of MM even better and more reliably in the long term. Also in 2022, the management team of MM was further extended and supplemented by high-potentials in line with increased requirements.

MM Board & Paper

Leading cartonboard producer with an attractive offer in kraft papers and uncoated fine papers

With a total annual production capacity of 2.0 million tonnes of cartonboard, the division MM Board & Paper is the biggest cartonboard producer in Europe (excluding liquid packaging cartonboard). A varied range of cartonboard products for a wide spectrum of applications with a focus on the packaging area is manufactured at six locations in Europe. Approx. 65 % of the cartonboard capacity is accounted for by coated recycled fiber-based cartonboard and approx. 35 % by virgin fiber-based cartonboard. Furthermore, the division has an annual capacity of approximately 260,000 tonnes of kraft paper and 390,000 tonnes of uncoated fine paper. Recycled fibers, which are purchased from external suppliers, account for approx. 48 % of the fibers used per year. Another approx. 23 % of the fibers used are groundwood pulp, most of which we produce ourselves at our cartonboard mills and in the division's own fiber mill FollaCell in Norway. Pulp, which accounts for approx. 29 % of the fiber demand, is produced to approx. 74 % by the Group, while approx. 26 % is purchased externally.

Cartonboard and paper – a wide range of applications

Cartonboard products of MM Board & Paper are used as packaging material in numerous consumer goods markets for daily needs. The main areas of application are Food & Specialities, which account for around 89 % of sales, as well as the premium sector (Pharma & Healthcare, Beauty & Personal Care, etc.) with a sales share of 11 %. Kraft papers are sold in particular to the food/gastronomy industry and the laminate industry, uncoated fine papers (office and printing papers) mainly to paper/office supply retailers. In order to optimally satisfy specific requirements of individual market segments, MM Board & Paper's main product groups – recycled fiber-based cartonboard, virgin fiber-based cartonboard, white coated recycling liner (high-quality printable and finishable top layer for corrugated board products in low grammage), packaging kraft paper as well as saturating kraft paper – have been set up as separate units within the sales organization. To safeguard supply capability, the Supply Chain & Sales Operations function in particular was significantly strengthened in 2022.

The main market of MM Board & Paper is Europe, where approximately 92 % of the sales volume was sold in 2022. In addition, a worldwide sales network is maintained, supplying more than 2,000 customers in around 110 countries. These are in particular printing businesses in the medium-sized and highly fragmented European folding carton industry as well as consumer goods producers and the previously mentioned customers in the paper sector.

Growth through efficiency, sustainability and innovative products

As a key factor for further growth, not only the most comprehensive investment programs to date have been launched for the Frohnleiten, Neuss and Kolicevo sites, but also projects at the new acquisitions MM Kotkamills and MM Kwidzyn have already been initiated. The objective is to align the product range to new opportunities on the market through state-of-the-art technology and to become even more competitive with greater efficiency and sustainability. A well-coordinated process between innovation, product development, and commercialization aims at both the continuous improvement of existing solutions and processes as well as the development of new applications and market potentials. MM Board & Paper pursues an approach that takes into account aspects from the entire value chain. High quality, functionality, safety, and sustainability of our products as well as comprehensive competence and state-of-the-art services characterize the range of products offered by Board & Paper.

Plastic substitution through innovative fiber-based solutions

Cartonboard and paper are the preferred packaging materials among consumers and regulators. Therefore, major retailers and brand owners have committed themselves to avoiding the use of unnecessary plastic in packaging. MM Board & Paper's aim is to create new possibilities for replacing plastic packaging with environmentally friendly, innovative solutions made of cartonboard and paper and to increase the functionalities without using further plastics. With this ambition, we are developing novel barrier concepts to facilitate the use of cartonboard as an alternative packaging material for a wide range of food products including liquid, chilled, frozen and/or greasy foods. The impact of this trend on our cartonboard and paper sales remains difficult to estimate. However, our aim is to use this as an advantage in order to grow faster than the market.

Concentration on high-performance locations

In the period 2020-2022, MM has concentrated its production at high-performance sites. By the end of 2022, production is carried out on seven high-performance cartonboard machines and four paper machines at six locations. Each of the machines is adapted to provide specific product qualities: three to recycled fiber-based cartonboard, two to virgin fiber-based cartonboard, one to white coated recycling liner and another cartonboard machine flexibly produces both recycled and virgin fiber-based cartonboard grades. In addition, two paper machines produce uncoated fine paper and two further machines produce packaging kraft paper and saturating kraft paper, respectively. The cartonboard machines are continuously further developed according to the state of the art with a focus on growth potential and competitive strength.

Fibers and energy central factors

Recovered paper is the strategically most important raw material for the production of coated recycled fiber-based cartonboard, groundwood pulp for virgin fiber-based cartonboard and pulp for kraft and fine papers. Additionally, energy, chemicals, and logistics are other significant cost factors. High-quality printability of cartonboard is reached through the application of a coating made from chalk, fillers, and binders to the outer surface of cartonboard.

MM Board & Paper purchases recycled fibers at large in Europe, predominantly on the spot market. In addition, long-term supply opportunities from municipalities and waste-management companies are also used to a lesser extent. Due to the decline in print media and office papers, recovered paper will become a scarcer raw material in the longer term, despite high recycling quotas and existing reserves, although we continue to consider the availability for our mills to be secured. We also consider the supply of wood as a raw material for groundwood pulp and pulp to be ensured due to the ongoing procurement from sustainable forestry. However, as the situation resulting from Covid-19 and thereafter showed, significant fluctuations in supply and prices can occur. MM Board & Paper primarily uses natural gas as an energy source. The increased use of renewable energy sources, such as biomass, as well as an increase in self-supply are our objectives.

Intense competition in the cartonboard industry

MM Board & Paper is the only European supplier with several large production locations of recycled and virgin fiber-based cartonboard, respectively, and, moreover, the only European cartonboard producer with a substantial additional pillar in folding carton production. The three largest Scandinavian suppliers operate exclusively in the area of virgin fiber-based cartonboard.

With regards to recycled fiber-based cartonboard, the capacity growth in Europe has been achieved through a continuous technological modernization of existing mills ("creeping capacity increase") for decades. Regarding virgin fiber-based cartonboard, in particular the structural shift from graphical papers to cartonboard packaging products over the last few years has resulted in the creation of new capacities. In addition, a significant further expansion of virgin fiber-based cartonboard capacities in Europe must be expected in the coming years as part of the trend towards more sustainable packaging and large, highly efficient mills.

MM Packaging

A leading global folding carton producer

The core business of MM Packaging focuses on folding cartonboard packages for consumer staples. In the business year 2022, around 4,056 million m² were produced and sales of EUR 2,168.7 million were generated. Thus, MM Packaging is not just a leading producer of folding cartons in Europe but also one of the largest worldwide. Due to the acquisitions in the Pharma & Healthcare business unit, MM Packaging is also a leading producer of leaflets and labels for this sector. Transport costs and service requirements limit the supply radius of folding cartons, which are defined as mainly regional products. As a result of significantly lower market barriers in the folding carton business compared to the cartonboard industry, the business is characterized by a continuously intensely competitive environment and smaller supplier structures.

The production of folding cartons is a multi-step process that can be briefly described as follows: cartonboard is printed, creased in the subsequent cutting process before being separated into packaging blanks which are folded and glued individually according to the demand of the customer industry in the final step of the process. In addition, a large number of processes for finishing the packages is applied. The packages are generally shipped and transported in a folded state with an outer carton. The filling of packages with consumer goods largely takes place at the customers' packing systems. In line with its aspiration to best industrial practice, MM Packaging uses all common state-of-the-art preprinting, printing, and finishing technologies.

Corrugated cartonboard production represents a different industry from that of cartonboard and folding cartons with different products and markets in which MM Packaging does not operate. There is an overlap for consumer goods packaging made of fine flute (micro-flute), which are also produced at some specialized MM Packaging sites. These combine the stability of flute with the excellent printability of cartonboard.

International site network always close to the customer

The geographical focus of the site network of MM Packaging with 65 sites in 24 countries is Europe. Furthermore, we are now also present on the US East Coast in the area of pharma packaging after the recent major acquisition. In addition, MM Packaging also holds a leading position in individual countries in the Middle East, South America, and the Far East. In addition to the broad local positioning, we create competitive advantages by sites specializing in specific market and product segments in the areas Food & Specialities as well as Premium through appropriate know-how and continuous further development opportunities. In 2022, the main sales market of Europe accounted for approx. 67 % of sales, the Americas for 10 %, and the rest of the world for 23 %. The aim of our location policy is to supply our customers from geographically well-positioned and highly competitive production facilities.

Sales to a wide range of industries

MM Packaging covers a wide range of sectors with packaging for consumer staples, thus creating both potential for development and a solid level of resilience. The two markets Food & Specialities and Premium contribute to MM Packaging's sales in almost equal parts. The highly specialized Premium business comprises the areas pharma, healthcare, beauty, personal care, cigarette, and luxury. The concentration of MM Packaging's organization on individual specialized business units makes it possible to meet specific market and product requirements with targeted know-how and to selectively control the value-added process.

The major part of the business is generated with large multinational customers which account for approx. 80 % of sales. The allocation of demand via tender procedures and multi-year procurement agreements are the rule in international key customer business. The remaining part of sales goes to local customers. In total, MM Packaging supplies more than 2,300 customers worldwide.

Strategic raw material cartonboard

Folding carton production starts with cartonboard as essential raw material, constituting both the most important input and cost factor. The choice of used cartonboard, on the one hand, depends on the functionality of the package, and, on the other hand, on the specific requirements of individual consumer goods sectors and manufacturers. In accordance with the divisional profit-center principle of the Group, MM Packaging procures the required recycled and virgin fiber-based cartonboard and papers via its own purchase organization. When doing business with international consumer goods manufacturers, the purchase of cartonboard is also decided or negotiated by the customer. Major changes in cartonboard prices as well as other significant cost changes are generally taken into account in the sales price formation through appropriate clauses which relate to reference values. In addition to cartonboard and paper, other important raw materials for MM Packaging include inks, varnishes, and tools. The personnel intensity in folding carton production is consistently higher than in cartonboard production.

Investment in competitiveness and sustainability– growth, organic and through acquisitions

Similar to the cartonboard market, the demand for folding carton packages correlates with private consumption. Due to the focus on packages for consumer staples, the business of MM Packaging shows a high level of continuity. MM Packaging's aim is to continue to grow organically and through acquisitions by increasing its competitive strength and by focusing on future markets, such as pharma.

For this purpose, we are investing in state-of-the-art technologies and developing attractive sites close to our customers. For example, the large MMP Neupack Polska site is being expanded and another packaging plant is being built in Poland (Emerald), in order to participate in the market growth in Central-Eastern Europe and to take advantage of more favorable costs. Furthermore, the expansion of MMP plants to critical size in Great Britain, Austria and Romania was completed in 2022. In addition, the company is continuously modernizing its machinery in order to increase efficiency and develop at state-of-the-art technology (i. e., digital printing). For 2023, this relates in particular to the utilization of the value enhancement potential at selected former Essentra Packaging sites and the industrial production of new sustainable special packaging in plastic replacement.

The aim is to continue to grow in line with best industrial practice and to further increase the competitiveness of MM Packaging. The focus is placed on increased specialization, automation and digitalization, and the development of innovative sustainable packaging. Therefore, we generally give a lot of room to future concepts so that ongoing change can succeed.

As before, MM Packaging will continue its expansion and acquisition course, in a risk-conscious way, guided by value creation and striving for a sustainably high quality of results.

2 DEVELOPMENT IN THE YEAR 2022

General economic situation

The global economy in 2022 was mainly characterized by a further increase in inflation, which severely weakened the incipient economic growth. After a strong first half of the year for the economies of the EU due to increased consumer spending, momentum slowed visibly as a result of the war in Ukraine. In particular, rising prices for energy products and uncertainties in supply chains led to an increase in price levels and thus to historic highs in inflation rates, to which the major central banks in the advanced economies responded by raising key interest rates significantly. A strong labor market and fiscal policy measures to offset rising energy prices supported private consumption, enabling EU GDP to overall record slight growth at the end of the year. High uncertainties remain regarding the development of the energy markets as well as the impact of a longer lasting inflation and the high interest rate environment on private consumption.

Industry development

Demand on the cartonboard and folding carton markets as well as for papers showed strong dynamics until the 3rd quarter of 2022. This development was driven in particular by supply uncertainties in view of disrupted supply chains and potential energy bottlenecks as a consequence of the war in Ukraine as well as the generally strong increase in cost inflation. However, full warehouses, fears of recession and the restricting effect of inflation on consumer purchasing power led to a significant drop in demand on the cartonboard markets in the 4th quarter at the latest, while the folding carton business still developed largely stable.

Against the background of the good booking situation and high capacity utilization over large parts of the year, the massive cost increases in raw materials and energy in the industry could be passed on successively in many cases. However, with falling energy prices due to a mild winter and the significant drop in recovered paper prices, a rapid reversal in major cost components set in in the 4th quarter, which has since then significantly increased the pressure on selling prices.

The topic of sustainability in packaging, in particular the substitution of plastic, continued to be a focus for all participants along the value added chain and is proactively promoted by cartonboard/paper and folding carton producers as well as consumer goods manufacturers and retailers. However, due to full employment in the industries, conversions were slow and selective to take hold.

Although there were no significant capacity increases in 2022, the redirection of former Russian volumes in particular exerted an increasing pressure on the European cartonboard market. In the medium term, however, a significant increase in new capacities, particularly for virgin fiber-based cartonboard, is to be expected especially from Scandinavia. Market growth and the conversion to large, highly competitive high-performance plants are the main reasons for this. In the area of recycled fiber-based cartonboard, capacity increases are directed to ongoing investment activities, which will have a special focus at MM Board & Paper in 2023 with the modernization of three large cartonboard machines. As a result of the challenging framework conditions, the situation for structurally smaller producers continues to be more strained.

In the folding carton sector, the concentration in Europe continued with the acquisition of AR Packaging by Graphic Packaging (US) in 2022, with the latter now also occupying a leading position in Europe. The acquisitions of MM Packaging in the area of secondary pharma packaging for the first time created a pan-European player in this specialized business with an equally significant position in the US. Basically, however, the supplier structure in the European folding carton business continues to be generally characterized by strong fragmentation.

Development of business 2022

Group

The MM Group grew significantly in terms of profit and sales, both organically and through acquisitions, in a macroeconomically and geopolitically challenging environment in the financial year 2022. Demand for our natural, recyclable packaging products made of renewable raw materials was dynamic for most of the year and customers appreciate our investments in competitive sites, innovation and sustainability. The energy and raw material crisis confronted MM with particular challenges, which were overall successfully managed. Sales price increases compensated for the severe rise in energy and raw material costs. In addition, we succeeded in ensuring continuous supply to our customers despite unstable supply chains.

The acquisitions of Essentra Packaging and Eson Pac, completed in 2022, position MM as a global player in secondary pharma packaging and contribute to more resilience and growth throughout our business. Together with the two acquisitions of the previous year in the Board & Paper division, MM Kwidzyn and MM Kotkamills, they are part of the transformation of MM to increase value and growth abilities of the MM Group through acquisitions and operational optimization.

Despite an increasing market weakness in cartonboard and paper from the end of the 3rd quarter onwards, due to the well-stocked supply chain and thus considerable market-related machine downtime in this area, the MM Group recorded a strong overall increase in profit in 2022. The growth in operating profit from EUR 269.6 million to EUR 510.3 million mainly results from the division MM Board & Paper due to improved operations as well as the full-year inclusion of the previous year's acquisitions. In contrast, the operating profit of MM Packaging decreased due to one-off expenses despite a favorable organic growth of approximately 5 %.

In line with the good profit development and long-term dividend policy, a dividend increase to EUR 4.20 per share (2021: EUR 3.50) for the financial year 2022 will be proposed to the 29th Annual Shareholders' Meeting on April 26, 2023.

Consolidated income statements

Consolidated income statements (condensed version)

(in millions of EUR)	2022	2021	+/-
Sales	4,682.1	3,069.7	+ 52.5 %
Operating profit	510.3	269.6	+ 89.3 %
Financial result and result from investments	(43.4)	(25.1)	
Income tax expense	(121.7)	(53.8)	
Profit for the year	345.2	190.7	+ 81.0 %

The Group's consolidated sales reached EUR 4,682.1 million, which is 52.5 % or EUR 1,612.4 million above the previous year's figure (2021: EUR 3,069.7 million). On the one hand, this rise resulted from the previous year's acquisitions in the MM Board & Paper division as well as the company purchases of MM Packaging in the reporting year and, on the other hand from passing on costs through higher prices. Regarding the geographical distribution of sales, the share of the main market Europe increased to 80.1 % (2021: 77.1 %) and that of the Americas slightly to 5.1 % (2021: 4.8 %), while the share of sales of the rest of the world decreased to 14.8 % (2021: 18.1 %). Intercompany sales rose volume- and price-related

to EUR 236.6 million (2021: EUR 133.0 million) and were mainly related to deliveries from MM Board & Paper to MM Packaging.

Group sales by destination

(in %)	2022	2021
Europe (excl. BLR, RUS, TUR)	80.1 %	77.1 %
<i>thereof Austria</i>	1.8 %	2.1 %
The Americas	5.1 %	4.8 %
Rest of world	14.8 %	18.1 %
Total	100.0 %	100.0 %

Cost of sales

(in millions of EUR)	2022	2021	+/-	Percentage of sales	
				2022	2021
Cost of materials and purchased services	2,862.1	1,798.6	59.1 %	61.1 %	58.6 %
Personnel expenses	447.7	375.3	19.3 %	9.6 %	12.2 %
Depreciation and amortization ¹⁾	179.7	125.8	42.9 %	3.8 %	4.1 %
Other expenses	65.3	113.9	- 42.6 %	1.4 %	3.7 %
Cost of sales	3,554.8	2,413.6	47.3 %	75.9 %	78.6 %

¹⁾ incl. impairment on property, plant and equipment, and intangible assets as well as non-current assets held for sale

Cost of sales of EUR 3,554.8 million were EUR 1,141.2 million or 47.3 % higher than the comparable figure of the previous year (2021: EUR 2,413.6 million). This rise resulted in particular from the expansion of business volume due to the acquisitions as well as higher energy and raw material costs. Due to implemented cost passes, the share in sales decreased from 78.6 % to 75.9 %.

Selling and distribution, administrative and other operating expenses

(in millions of EUR)	2022	2021	+/-	Percentage of sales	
				2022	2021
Personnel expenses	212.9	165.2	28.9 %	4.5 %	5.4 %
Depreciation and amortization ¹⁾	40.0	25.6	56.3 %	0.9 %	0.8 %
Other expenses	435.0	280.6	55.0 %	9.3 %	9.1 %
Selling and distribution, administrative and other operating expenses	687.9	471.4	45.9 %	14.7 %	15.3 %

¹⁾ incl. impairment on property, plant and equipment, and intangible assets as well as non-current assets held for sale

Selling and distribution, administrative and other operating expenses also increased, mainly as a result from acquisitions and cost inflation, from EUR 471,4 million to EUR 687,9 million. Their share in sales decreased slightly from 15.3 % in the previous year to 14.7 %.

Significant one-off effects on operating profit and EBITDA

(in millions of EUR)	Operating profit		EBITDA	
	2022	2021	2022	2021
Structural adjustment measures	(24.6)	(20.1)	(11.7)	(20.1)
<i>Restructuring MM Kolicevo¹⁾</i>	(24.6)	-	(11.7)	-
<i>Closure MM Graphia Bielefeld²⁾</i>	-	(20.1)	-	(20.1)
Acquisitions/divestments	5.1	19.8	5.1	19.8
<i>Proceeds of sale of Russian sites²⁾</i>	20.1	-	20.1	-
<i>Incidental transaction costs acquisitions Eson Pac and Essentra Packaging and sale of Russian sites²⁾</i>	(15.0)	-	(15.0)	-
<i>Acquisitions mills Kwidzyn and Kotkamills¹⁾</i>	-	(26.3)	-	(26.3)
<i>Proceeds of sale mills Eerbeek und Baiersbronn¹⁾</i>	-	46.1	-	46.1
Disposal goodwill and customer relationship (exit from Russian market) ²⁾	(32.5)	-	(32.5)	-
Total	(52.0)	(0.3)	(39.1)	(0.3)

¹⁾ MM Board & Paper²⁾ MM Packaging

At EUR 510.3 million, an operating profit of EUR 240.7 million above the previous year (2021: EUR 269.6 million) was achieved. The significant rise is attributable to the division MM Board & Paper. One-off expenses in this division resulted in particular from the reorganization of production at the Slovenian cartonboard mill MM Kolicevo, which had to be recognized at an amount of EUR 24.6 million in the 4th quarter. In the division MM Packaging, one-off effects mainly related to the incidental transaction costs for Essentra Packaging and Eson Pac and the sale of the Russian sites in the amount of EUR 15.0 million as well as expenses connected to the exit from the Russian market totaling EUR 32.5 million contrasted with income from the sale of the packaging sites in Russia in the amount of EUR 20.1 million. In the previous year, one-off expenses from the initial consolidation of MM Kwidzyn and MM Kotkamills in the amount of EUR 26.3 million as well as from adjustment and restructuring measures in the Packaging division in the amount of EUR 20.1 million had to be recognized. This was offset by one-off income from the sale of the Eerbeek and Baiersbronn virgin fiber-based cartonboard mills in the amount of EUR 46.1 million (after incidental transaction costs). The Group's operating margin therefore increased to 10.9 % (2021: 8.8 %), the return on capital employed to 16.3 % (2021: 12.8 %). EBITDA rose by EUR 308.9 million to EUR 729.9 million (2021: EUR 421.0 million), the EBITDA margin reaching 15.6 % (2021: 13.7 %).

Financial income amounted to EUR 4.3 million (2021: EUR 3.3 million). The increase in financial expenses from EUR -24.4 million to EUR -32.1 million primarily results from the issuance of Schuldschein loans and Namensschuldverschreibungen in the previous year to finance the acquisitions and organic growth projects. "Other financial result - net" changed to EUR -15.5 million (2021: EUR -4.0 million), in particular owing to foreign exchange effects.

Accordingly, profit before tax rose by EUR 222.4 million to EUR 466.9 million, after EUR 244.5 million in the previous year. Income tax expenses totaled EUR 121.7 million (2021: EUR 53.8 million), resulting in an effective Group tax rate of 26.1 % (2021: 22.0 %).

Profit for the year, earnings per share

Profit for the year thus increased by EUR 154.5 million to EUR 345.2 million (2021: EUR 190.7 million), resulting in the net profit margin rising from 6.2 % to 7.4 %. An unchanged total average of 20,000,000 shares was outstanding in the reporting year 2022, resulting in earnings per share of EUR 17.19 (2021: EUR 9.46) based on the profit for the year attributable to the shareholders of the Company of EUR 343.8 million (2021: EUR 189.2 million).

Assets, capital, and liquid funds

Consolidated balance sheets (condensed version)

(in millions of EUR)	Dec. 31, 2022	Dec. 31, 2021
Non-current assets	2,884.3	2,460.0
Current assets	1,934.3	1,554.2
Total assets	4,818.6	4,014.2
Total equity	1,959.4	1,661.9
Non-current liabilities	1,889.3	1,569.4
Current liabilities	969.9	782.9
Total equity and liabilities	4,818.6	4,014.2

The Group's total assets of EUR 4,818.6 million by December 31, 2022 were EUR 804.4 million above the figure at year-end 2021 (EUR 4,014.2 million). This increase is mainly due to the initial consolidation of the new acquisitions and the increased capex volume for growth and competitive strength. The Group's total equity rose from EUR 1,661.9 million (December 31, 2021) to EUR 1,959.4 million, the growth in profit being offset by the dividend payment. Return on equity was 19.1 % after 11.9 % in the previous year.

Financial liabilities are largely of a long-term nature and increased from EUR 1,423.1 million at year-end 2021 to EUR 1,761.6 million as of December 31, 2022 due to borrowings to finance the company's acquisitions and organic growth projects. At 40.7 %, the equity ratio remained almost unchanged (December 31, 2021: 41.4 %).

With cash available to the Group totaling EUR 280.1 million (December 31, 2021: EUR 359.5 million), net debt increased from EUR 1,063.5 million to EUR 1,481.5 million at the end of 2022. Furthermore, credit lines and credit facilities totaling EUR 481.4 million (December 31, 2021: EUR 472.6 million), which can be used at any time, were available to the Group. The net debt/equity ratio amounted to 0.8, the net debt/EBITDA ratio to 2.0 (December 31, 2021: 0.6; 2.1).

Non-current assets increased mostly acquisition- and investment -related from EUR 2,460.0 million to EUR 2,884.3 million. Current assets rose from EUR 1,554.2 million to EUR 1,934.3 million, in particular due to increased inventories and trade receivables.

Cash flow development

Consolidated cash flow statements (condensed version)

(in millions of EUR)	2022	2021
Net cash from operating activities	299.7	269.8
Net cash from investing activities	(573.3)	(891.4)
Net cash from financing activities	191.9	836.9
Effect of exchange rate changes	2.2	(2.0)
Net change in cash and cash equivalents (< 3 months)	(79.5)	213.3
Cash and cash equivalents (< 3 months) at the end of the year	280.1	359.5

Cash flow from operating activities reached EUR 299.7 million and was thus EUR 29.9 million above the comparative figure of the previous year (2021: EUR 269.8 million). This difference results in particular from a higher cash-effective result which was offset by an increase in working capital.

Cash flow from investing activities changed from EUR -891.4 million to EUR -573.3 million. Higher payments from the change in consolidated companies in the previous year contrasted with the payments for the acquisition of the Scandinavian pharma packaging group Eson Pac in the amount of EUR 52.1 million and for Essentra Packaging in the amount of EUR 338.1 million as well as proceeds from the sale of the Russian Packaging plants in the amount of EUR 134.0 million. Payments for the acquisition of property, plant and equipment and intangible assets increased according to the intensified investment program from EUR 248.4 million to EUR 329.4 million.

Capital expenditures of MM Board & Paper amounting to EUR 191.8 million (2021: EUR 103.4 million) were mainly related to technical modernization and expansions with a focus on the sites at Frohnleiten, Austria, Neuss, Germany, Kotka, Finland, and Kolicovo, Slovenia.

The main focus of MM Packaging's capital expenditures in the amount of EUR 137.6 million (2021: EUR 145.0 million) was placed on expansions and technological modernizations in Poland, Romania, Great Britain, Türkiye, Chile and Austria.

Cash flow from financing activities changed from EUR 836.9 million to EUR 191.9 million, primarily as a result of the issuance of Schuldschein loans and Namensschuldverschreibungen in the previous year.

Further information

Acquisition Essentra Packaging

On October 2, 2022, MM Packaging has successfully finalized the acquisition of Essentra Packaging which was agreed in June 2022 for a preliminary purchase price amounting to EUR 325.1 million, after receiving approval from all relevant competition authorities. The transaction comprises 100 % of the shares in ESNT Packaging & Securing Solutions Limited (UK) and 100 % of the shares in Essentra Packaging US Inc (US) as well as their affiliated companies. Through this acquisition, MM Packaging expands its folding cartons, leaflets and labels activities for the resilient and profitable Healthcare & Pharma market creating an attractive platform for further growth.

Essentra Packaging has 21 manufacturing sites in 10 countries throughout Europe, US mainland and Puerto Rico ideally complementing MM Packaging's position in pharma packaging. Essentra Packaging employs about 3,500 people and delivers a global customer base of over 800 customers, including 19 of the top 20 pharma companies. In 2021, sales of approx. GBP 370 million were reported.

Acquisition Eson Pac

On April 11, 2022, MM Packaging acquired 100 % of the shares in Eson Pac, located in Veddige, Sweden, from the majority shareholder Nalka Invest AB as well as minority shareholders. The preliminary purchase price amounted to EUR 59.4 million.

Eson Pac produces and distributes high-quality secondary packaging solutions for the pharma industry (folding cartons, leaflets and labels) and employs approximately 300 people. With three production sites in Sweden and one in Denmark, sales of about EUR 48 million were generated in 2021.

Sale of Russian sites

On December 16, 2022, MM Packaging sold its two sites in Russia, St. Petersburg and Pskov, to the local investor Granelle following approval by the governmental authorities. The selling price amounts to EUR 134 million. In 2021, the plants generated combined sales of approx. EUR 124 million.

Definition of financial indicators

EBITDA (Earnings before interest, income taxes, depreciation and amortization)

Operating profit plus depreciation, amortization and impairment of property, plant and equipment, and intangible assets.

EBITDA margin

EBITDA divided by sales.

Employees

Employees at the end of the year, including apprentices and part-time employees on a pro-rata basis.

Equity ratio

Total equity divided by total assets.

Net debt/EBITDA

Net debt/net liquidity divided by EBITDA.

Net debt/equity

Net debt/net liquidity divided by equity at year-end.

Net debt/Net liquidity

The sum of current and non-current interest-bearing financial liabilities, including lease liabilities according to IFRS 16 less cash and cash equivalents. In case the sum of cash and cash equivalents exceeds financial liabilities, there is net liquidity.

Net profit margin

Profit for the year divided by sales.

Operating margin

Operating profit divided by sales.

Return on capital employed (ROCE)

Operating profit divided by the sum of average total equity, average current and non-current interest-bearing financial liabilities, including lease liabilities according to IFRS 16 and less average cash and cash equivalents.

Return on equity (ROE)

Profit for the year divided by average total equity.

All indicators were calculated exclusively on the basis of the information provided in the consolidated financial statements.

Business development in the divisions

MM Board & Paper

Dynamic demand and good order activity characterized the markets until the end of the summer months. Following a slowdown at the end of the 3rd quarter, demand again decreased significantly in the 4th quarter. Recycled fiber-based cartonboard in particular was weak in the second half of the year. High inventories in the supply chain and high inflation were responsible for this development. Against this backdrop, MM Board & Paper succeeded in gaining market share in both virgin fiber-based and recycled fiber-based cartonboard. The average order backlog of the division amounted to 233,000 tonnes (2021: 340,000 tonnes). Due to market and investment-related machine downtimes in the 2nd half-year, the division's capacity utilization of 91 % was below the previous year (2021: 97 %).

The strong cost inflation, which persisted into the 3rd quarter, particularly for energy and raw materials, was compensated for by timely price adjustments. Despite a tight supply chain and bottlenecks in purchasing over long periods of the year, we succeeded in securing supplies to customers through high flexibility and alternative procurement. As of fall, in particular the availability of fibers and chemicals has improved whereby our mills are currently experiencing a good supply situation and the input price peaks of the past months have been overcome. The latter also applied in particular to energy. The risk of a possible gas rationing, which would affect all cartonboard and paper mills except MM Kwidzyn, was countered by building up cartonboard stocks, renting gas storage facilities in Austria and investing in alternative oil firing in Finland.

With regard to the ongoing major capex at the Frohnleiten, Neuss and Kolicvevo mills focusing on efficiency improvements, sustainability, higher volumes and new product qualities, all machine conversions are now scheduled for 2023. In addition, production at the Kolicvevo mill was concentrated on the newer and larger cartonboard machine 3, as it was no longer economically reasonable to continue production on the smaller cartonboard machine 2. In connection with this restructuring, one-off expenses in the amount of EUR 24.6 million had to be recognized. The integration of the cartonboard and paper mills MM Kwidzyn and MM Kotkamills, which were acquired one year ago, has been well accomplished.

Production at 2,433,000 tonnes was acquisition-related 17.6 % higher than in the previous year (2021: 2,069,000 tonnes). 1,217,000 tonnes (50 %) thereof were attributable to recycled fiber-based cartonboard and 634,000 tonnes (26 %) to virgin fiber-based cartonboard (2021: 1,320,000 tonnes or 64 % and 502,000 tonnes or 24 %). The remaining 582,000 tonnes (24.0 %) were attributable to kraft papers and uncoated fine papers (2021: 247,000 tonnes or 12.0 %). Based on the average number of employees, 520 tonnes (2021: 616 tonnes) were produced per employee. Sales volumes increased in line with production by 14.1 % to 2,389,000 tonnes (2021: 2,092,000 tonnes).

At EUR 2,750.0 million, sales were acquisition- and price-related 76.2 % or EUR 1,188.9 million above the comparative figure (2021: EUR 1,561.1 million) and were attributable 92 % to Europe (2021: 86 %), 1 % to the Americas (2021: 2 %) and 7 % to the rest of the world (2021: 12 %).

MM Packaging was again MM Board & Paper's largest customer with a share of deliveries of around 15 % or 264,000 tonnes of cartonboard (2021: 13 % or 236,000 tonnes).

The operating profit increased by EUR 273.3 million to EUR 381.0 million (2021: EUR 107.7 million). The previous year included positive one-off effects from changes in consolidated companies. Operating margin reached 13.9 % (2021: 6.9 %), return on capital employed 22.5 % (2021: 11.0 %). EBITDA rose to EUR 499.3 million (2021: EUR 185.2 million). Cash flow from operating activities totaled EUR 244.4 million, compared to EUR 108.7 million in the previous year.

Divisional indicators MM Board & Paper

(in millions of EUR)	2022	2021	+/-
Sales ¹⁾	2,750.0	1,561.1	+ 76.2 %
EBITDA	499.3	185.2	+ 169.6 %
Operating profit	381.0	107.7	+ 253.7 %
Operating margin (%)	13.9 %	6.9 %	+ 695 bp
Cash flow from operating activities	244.4	108.7	+ 124.8 %
Return on capital employed (%)	22.5 %	11.0 %	+ 1,153 bp
Tonnage sold (in thousands of tonnes)	2,389	2,092	+ 14.1 %
<i>Cartonboard</i>	1,803	1,834	- 1.7 %
<i>Kraft Papers</i>	220	93	+ 137.1 %
<i>Uncoated Fine Papers</i>	366	165	+ 120.5 %
Tonnage produced (in thousands of tonnes)	2,433	2,069	+ 17.6 %

¹⁾ including interdivisional sales

MM Packaging

MM Packaging recorded overall good demand throughout all business units in 2022. Record order levels in the first half-year were followed by a stabilization at a normal level in the second half of the year despite increasing restraint in private consumption. Against this backdrop, a favorable organic volume growth was achieved, to which also the recently successfully completed expansion investments contributed.

The sharp cost increases during the year, particularly for cartonboard, paper, energy and transport, could be gradually passed on. In this regard, the cycles for sales price adjustments were considerably reduced with the objective of maintaining delivery capability by means of a strict margin policy. This has been achieved on an ongoing basis. In addition, the integrated positioning of MM as a cartonboard and folding carton producer has become significantly more important in connection with safeguarding the supply of materials to customers in 2022.

Establishment of a global position in the Pharma & Healthcare market

With the acquisitions of Essentra Packaging and Eson Pac, MM Packaging has expanded its position in the Pharma & Healthcare market to a global footprint with focus on Europe and North America. The highly synergetic customer portfolio, including the world's top pharmaceutical companies, the expanded product portfolio, in particular for leaflets and labels, as well as the necessary leverage of operational synergies are expected to significantly support growth in volume and earnings in the coming years.

At 4,056 million m², the volume produced was 10.4 % above the previous year's level (2021: 3,672 million m²). After eliminating the effects of the acquisitions of Eson Pac and Essentra Packaging, MM Packaging was able to achieve an organic growth of more than 5 %.

The solid performance of MM Packaging in the current business was mainly offset by the one-off effects amounting to approx. net EUR -27 million from the acquisition of Essentra Packaging, the sale of the sites in Russia, and the exit from the Russian market.

Sales increased price- and volume-related by 32.1 % to EUR 2,168.7 million (2021: EUR 1,641.6 million). 67 % were accounted for by Europe, 10 % by the Americas and 23 % by the rest of the world (2021: 69 %; 7 %; 24 %). MM Packaging supplies around 2,300 customers in various consumer goods industries. Main markets are Food & Specialities as well as Premium, the latter including the markets Pharma, Healthcare, Cigarette, Beauty, Personal Care and Luxury. As a result of a high concentration in the customer industries, a significant share of business is accounted for by multinational key accounts, whereby around 35 % of sales in 2022 were generated with the five largest customers (2021: 40 %).

At EUR 129.3 million, the operating profit was EUR 32.6 million lower than in the previous year (2021: EUR 161.9 million). This development results in particular from the above-mentioned one-off effects. The previous year included non-recurring effects from structural adjustments. Accordingly, the operating margin amounted to 6.0 % (2021: 9.9 %), EBITDA to EUR 230.6 million (2021: EUR 235.8 million). Return on capital employed totaled 8.9 % (2021: 14.4 %), cash flow from operating activities amounted to EUR 55.3 million after EUR 161.1 million in 2021.

Divisional indicators MM Packaging

(in millions of EUR)	2022	2021	+/-
Sales ¹⁾	2,168.7	1,641.6	+ 32.1 %
EBITDA	230.6	235.8	- 2.2 %
Operating profit	129.3	161.9	- 20.1 %
Operating margin (%)	6.0 %	9.9 %	- 390 bp
Return on capital employed (%)	8.9 %	14.4 %	- 550 bp
Cash flow from operating activities	55.3	161.1	- 65.6 %
Produced volume (in millions of m ²)	4,056	3,672	+ 10.4 %

¹⁾ including interdivisional sales

3 RESEARCH AND DEVELOPMENT

The focus of MM Group's research and development activities is placed on strengthening and securing the Group's competitiveness and ability to grow in the long term through innovative and sustainable solutions. In this regard, we aim to identify market and future trends at an early stage and to use them in a way that creates value for our customers and the entire Group. In order to succeed in the long term, we draw on a broad spectrum of resources within and outside our organization, regularly create incentives for new solutions to develop, and continuously invest in the future of MM.

On the one hand, our innovation activities are driven by demand for continuous product and process optimization, on the other hand, changing conditions create the need for further development. In addition, the exploration of new, future business areas and target applications is the driver for innovation activities. The development and implementation of product innovations always take into account possible risks for product safety and the use of potential from the development of innovative and sustainable packaging solutions.

Modern innovation process

With our long experience in developing innovative products and our know-how of structuring innovation processes, we work steadily on reaching our strategic growth and sustainability targets. Our approach is always focused on a responsible use of raw materials and a willingness to question the status quo.

All product developments of MM pass through a pre-defined, continuously improved process. This starts with brainstorming and, with the involvement of experts from our specialized departments, leads through evaluation and technical product development to market launch.

We are convinced that innovative strength arises from diversity and the combination of different potentials. Being open to new ideas and willing to engage in dialog are crucial components of our innovative culture. Therefore, we involve stakeholders such as customers, suppliers, end users and research partners in our innovation process at an early stage, thus opening up a differentiated perspective on problems and on the specific requirements, such as state-of-the-art technological functionality, quality, safety and sustainability, our products have to meet. This enables us to incorporate new insights and solutions directly into the development of our products and put our customers' needs at the center of everything we do. We are exploring new concepts of food packaging and are constantly evaluating technologies for our future board and paper products.

To ensure quality and safety, we rely on external certifications. They are an important proof for customers and end users that our product innovations are sustainable, socially acceptable and harmless to health. They also serve to confirm legal compliance in the area of product safety. Regular testing of both existing products and innovative solutions for compliance with certification criteria ensures rigorous quality assurance, which is also visible to the outside world.

In 2022, we continued our collaborations with external partners like universities, research institutions and start-ups. Our main areas of cooperation are application-oriented basic research on the treatment of wood fibers, the use of alternative and/or modified fiber raw materials, and the use of bio-based materials as a substitute for fossil-based raw materials.

Our internal platform “we.invent” gives all employees the opportunity to become involved by contributing their own ideas, regardless of which country or field they operate in. The contributions are evaluated based on a defined set of criteria in a stage-gate process and selected for implementation.

Sustainability in the focus of development and innovation activities

Both climate change and the Corona pandemic remind us that security and prosperity depend on how we preserve common goods, such as climate stability and public health, in the long term: society and economy must be built on a resilient, sustainable, and climate-friendly basis. Cartonboard and paper are thus gaining importance as environmentally friendly packaging. MM’s objective is to use the opportunity to support customers in replacing plastic with innovative and, at the same time, proven solutions made of paper and cartonboard. In this way, we are also pursuing the current trend towards sustainable packaging with a natural appearance as well as a high level of convenience and safety and perfect integration into online sales.

Progressing automation in the Group

The automation of work flows and logistics processes in both divisions is progressively gaining momentum, also with the aim of creating additional competitive advantages. To optimize our production processes, the individual sites are centrally supported from the very beginning, already when new machines are purchased. This extends from machine configuration and installation to commissioning and acceptance of the machines before they go into production. Reducing downtimes and increasing flexibility are currently the focus of the implementation of future-oriented automation concepts at MM.

Innovation activity in the MM Board & Paper division in 2022

The research and development center of MM Board & Paper at the Frohnleiten site works together with the R&D capacities at the MM Kotkamills site and external research institutions on the implementation of fundamental findings in the context of science and production.

The innovation focus in 2022 included the development and expansion of innovative dispersion barriers for various packaging applications. These coatings can provide grease resistance, moisture protection as well as heat sealing properties. They allow the use of cartonboard as packaging material for a wide range of foodstuffs such as liquid, chilled, frozen and/or greasy foods. Our barrier developments meet our customers’ needs for sustainable and recyclable packaging and complement our ongoing efforts to replace plastic.

In addition, incremental product developments such as the expansion of the basis weight range and further optimization of technical values played an important role in the year 2022.

Among newly launched products, MM GT White from the Gernsbach mill is particularly noteworthy: a recycled fiber-based cartonboard with an outstanding white appearance, ideal for premium packaging. The high brightness on the top and reverse side ensures that MM GT White is the ideal choice for the pharma and cosmetics industries.

Innovation activity in the MM Packaging division in 2022

MM Packaging's innovation network

The innovation matrix organization of MM Packaging ensures that the entire technical know-how of the MM Group can be used for the needs and requirements of our customers in an efficient and target orientated manner. It comprises the following: PacProject, the creative Innovation Center in Hamburg, the Premium Printing Center in Trier, and the Technical Account Management team for coordinating targeted customer briefings with the local Packaging Development Centers and individual plants and the Tann-Group's research and development center. Our Divisional Technical Support team as well as Packaging Development Centers also support our customers, particularly in terms of technical orientation and equipment in order to develop novel packaging concepts and designs.

At PacProject in Hamburg, concept studies up to the first prototypes are carried out in close coordination with the customer. Due to the close collaboration with the Technical Account Management team, first feasibility analyses are already carried out at this stage. At the Premium Printing Center in Trier, highly innovative technologies are used to create packaging designs with extraordinary effects in the shortest possible time. In the area of innovation, the demand for "e-training/learning" on behalf of our customers has increased tremendously. Therefore we offer customized trend workshops, idea workshops and technical trainings.

With the expansion of the Pharma & Healthcare business unit, the division's innovation structure was also extended in 2022. The establishment of an XBU Innovation Team (Cross Business Unit Innovation Team), which consists of the Innovation Directors of the individual business units, ensures that the growing customer requirements in terms of innovation can be met in the long term through regular best practice exchange. This is accompanied by close cooperation with MM Board & Paper in the area of innovation.

The aim is to position MM as a preferred supplier through innovation leadership.

Current innovation focus

In 2022, MM Packaging's innovation activities focused again in particular on the topic of sustainability. In this context, work was carried out in cooperation with customers, universities of applied sciences and research institutes, on optimizing recyclable packaging and developing new products.

New application areas have been reviewed and further progressed, such as "child save boxes", which are replacing plastic boxes for laundry capsules; "Green Peel", a new alternative made of cartonboard for food trays with a significantly reduced amount of plastic, and "Moulded Pulp", which is a new focus in the area of fiber based packaging. In the area of new technologies, we are placing a special focus on digital printing for cartonboard packaging, which is being taken to the next level through our major investments in Poland and Germany.

Awards for innovative and sustainable solutions

MM Packaging and MM Board & Paper received a joint award in the category Food & Drink Packaging, Recycled Fibre for an innovative, sustainable potato packaging at the European Carton Excellence Awards. This solution, produced from Liner and converted by MM Packaging, was developed for carrying and storing potatoes as an alternative to conventional plastic thermoformed trays. The jury was particularly convinced by the combination of its high functionality and the brand communication possibilities.

Furthermore, MM Board & Paper was awarded the “Green Packaging Star Award” in the “Save Food” category, which recognizes green packaging solutions and improvements in internal production processes for the benefit of the environment. The jury was impressed by the innovative FOODBOARD™ cartonboard used as packaging material for organic tea. With its functional barrier, it protects tea from external environmental influences and preserves its natural aroma. This makes an additional protective film made of cellophane redundant, the packaging is therefore completely recyclable.

The practical and at the same time fully recyclable stone fruit basket “MM Basket”, made from Browncolor, received the golden “Marken Magnet” awarded by the German trade journal Lebensmittel-Praxis in the category “Sustainability” as well as a “Special Mention” in the category “Excellent Communication Design – Packaging” at the German Design Award.

Further awards like “silver” at the “Marken Magnet” in the category “Impulse at the POS” as well as a “Special Mention” at the German Design Award went to an innovative food packaging, which is made from recycled cartonboard by MM Board & Paper for being the first solution ever to use the new NaviLens system which provides blind and visually impaired people with information about the product via colourful QR-like codes.

4 RISK MANAGEMENT

The MM Group is exposed to a variety of industry-specific and general risks in connection with its international operations. Owing to the correlation of demand for the products of both divisions, MM Board & Paper and MM Packaging, with private consumption, the development of the economic situation in particular is of significant importance for the Group's risk situation. Because of the geographical business focus on Europe and the mainly regional character of cartonboard, paper and packaging due to transport costs and service, the economic conditions in the major European economies have a special influence on the Group. With regards to procurement, especially the developments on fiber and energy markets are of particular relevance for risk assessment.

In the financial year 2022, the risks and impacts associated with the war in Ukraine were considered within the existing risk areas. The focus was on procurement (bottlenecks in the supply chain, volatility in raw material prices), energy (energy prices and availability), payment transactions, compliance and potential loss of production (plant closures) as well as a reduction in sales. By contrast, the risks associated with the Covid-19 pandemic are now considered to be moderate and no longer material for the Group. However, the measures that had to be taken because of the pandemic have opened up new opportunities, including improved processes in procurement and supply chain management, as well as the establishment of home office and new communication possibilities which resulted in a reduction of travel expenses. The increasingly complex supply chains have been added as a new focus area in risk management. The supply chain risk is caused, among other things, by a changing customer portfolio (more small and medium-sized customers), changes in customer requirements (e.g., smaller batch sizes, shorter delivery times), regionalization and CO₂ footprint reduction. In order to be able to cope with this increased complexity and to remain a leader in a challenging competitive environment, MM is investing in the establishment of dedicated supply chain management departments in both divisions MM Board & Paper and MM Packaging. Risks in this respect are managed by modified processes, additional suppliers or a higher inventory. Supply chain risks are covered by the risk management of MM within the existing risk fields.

Taking into account the safety and control instruments already in use and the early warning indicators, no significant risks that could endanger existence or impair its development are currently identifiable. Compared to the previous year, the risks from the availability of raw materials for the divisions MM Board & Paper and MM Packaging were classified as lower, the customer dependency at MM Packaging as higher. Furthermore, the potential for damage with regard to cash management/liquidity remains high.

Having focussed on the core business areas for many years already, the MM Group has a solid base for identifying potential risks at an early stage and for adequately assessing possible consequences thereof. Dealing with risks is set out in a risk management system. It involves the systematic identification, assessment, control, and reporting of significant events and risks which could potentially endanger the Group's existence and influence its development. We define the term risk as a negative deviation from the corporate objectives resulting from an event that might occur in the future with a certain degree of probability. The risk management system aims at limiting substantial risks to an acceptable level by means of suitable measures. The existence of the Group and its ability to create value should thus be safeguarded in the long term.

For each risk that is identified and considered to be significant for the Group, specific control, steering and safeguarding measures are determined, taking into account the Group-wide risk policy, in order to manage the respective risk. These measures are continuously evaluated and developed or amended. They are oriented towards improving the Group's risk position, however without restricting possible opportunities.

The Management Board is responsible for the Group's risk management, defines the risk policy which is generally characterized by a conservative approach and sets the framework for Group-wide risk management. There is a focus on risk prevention and risk reduction which are, as far as economically justifiable, achieved by appropriate control measures and complemented by the Group's insurance program.

The "Risk Management Compliance" department reports directly to the Management Board and ensures that risk management is implemented and conducted on behalf and in the interest of the Management Board. Each risk area that is considered to be significant is assigned to a risk area officer with relevant expertise who is responsible for analyzing, assessing, controlling, and monitoring the respective risks. Thus, the risk management process does not take place in an isolated way, but as an integral part of the organization and its procedures. The identified risks are evaluated in terms of potential damage and probability of occurrence before as well as after taking safeguarding and steering measures.

The Group's auditor is responsible for assessing the functionality of the risk management system. He reports to the Supervisory Board and the Management Board.

The most significant risk areas to which the Group is exposed and the measures taken to manage these risks are described below.

Sales

The demand for cartonboard packages and paper products from MM correlates with the overall economic development, but especially with the demand for consumer staples. Market risks may therefore arise in particular from the overall economic development as well as regulatory and political conditions on individual sales markets and the delayed identification of changes in trends.

Owing to sufficiently available capacities of providers, the sales markets of MM Board & Paper and MM Packaging are characterized by intensified competition. The Group therefore pursues a strategy of further asserting and extending the market position of both divisions in the long term through increasing competitiveness with efficiency gains, sustainability and innovation.

The Group has a total of several thousand customers. MM Board & Paper sells unprocessed cartonboard mainly to the medium-sized European folding carton industry. Kraft papers are sold in particular to the food/gastronomy industry and the laminate industry, uncoated fine papers (office and printing papers) especially to paper/office supply retailers in Europe. The division MM Board & Paper generates around 30 % of divisional sales with 15 main customer groups, excluding MM Packaging. The division MM Packaging supplies in particular printed cartonboard packages to consumer goods manufacturers and generates around 70 % of divisional sales with 40 main customers. The level of dependency of individual production sites on customers is determined to a large extent by sales and supply developments, pricing strategies, the supply chain as well as the political environment.

Customers are constantly assessing their locations network in order to optimize costs and exploit growth opportunities, which may result in a geographical relocation of business with closure risks at existing sites or investment needs at new sites. The Group's broad positioning in a great number of market segments and the geographical width of market presence contribute to minimizing risk, however.

A broad range of well-established measures has been taken to safeguard market shares and generate new business. These include a close contact with customers, ongoing monitoring, market analyses, cooperation in research and development, sustained quality and cost management, continuous investment activities, monitoring of life cycles and trend analyses as well as a systematic expansion of our customer base, and a regular participation in tenders as well as trade fairs and congresses.

The increased public interest in sustainability and health has been accompanied by growing demands from customers, interest groups, and legislators with regard to sustainable packaging solutions as well as their product quality and safety. It is a particular priority for MM to meet these requirements in order to minimize a potential risk to sales, compliance, or reputation. Embedded in an institutionalized framework, both divisions continuously implement R&D activities that undergo continuous further development. For example, the idea platform "we.invent" systematically collects ideas from among all MM employees. In addition, the innovation stage gate process was further expanded. This makes it possible to offer safe and innovative products that are sustainably in line with market demands. MM meets the high product safety and quality requirements by certifying all production sites according to ISO 9001 and through regular quality assurance measures and inspections. In particular in the area of food packaging, a variety of effective measures ensure compliance with strict legal regulations and customer requirements, thus contributing to compliance, customer satisfaction and safeguarding sales. These include the ongoing monitoring of current, predominantly regulatory topics in the area of food contact materials, as well as research and development on the migration of ingredients and their effect.

In terms of sustainable, environmentally friendly packaging solutions, MM as a whole benefits from a positive perception of cartonboard and paper as a packaging material by the general public and customers. Particular importance is currently attached to substitution possibilities for plastic packaging using cartonboard and paper applications which are being taken up proactively and in a customer-orientated manner. Following the trend towards light-weight packages, MM Board & Paper is further expanding its range of qualities with low grammages.

The market for cigarette packaging is subject to regulatory risk due to the protection of non-smokers and minors, which is associated with potential effects on sales development. This can affect both the quantity and the value of the product. More and more countries around the world, whose number continued to increase in 2022, require "plain packaging", i. e., standard packages without brand logos. In connection with the EU Tobacco Products Directive, the ban on characterizing flavors was extended to heated tobacco products in November 2022, coming into force on October 23, 2023. Another trend is emerging with regard to the design of the cigarette itself. Specifically, some countries have announced plans to consider or introduce the direct placement of warning labels on cigarettes. The draft Packaging and Packaging Waste Regulation ("PPWR") proposes further labeling in relation to the recyclability of packaging. In the case of novel products, the widespread use of so-called nicotine pouches should be mentioned, whose introduction is being discussed very controversially. A proposal from the EU Commission to revise TPD2 is expected at the beginning of 2024, the evaluation phase has started on May 20, 2022. The impact on the relevant sales of the MM Packaging division cannot be quantified yet, but the risk is minimized by broad global geographic sales and a close cooperation with cigarette manufacturers. Furthermore, the sales risk is also reduced by packaging for so-called "reduced risk products". Companies operating in this product area may be subject to discrimination in the public perception.

Production

Production plants and processes in the Group are systematically developed or renewed in line with the state of the art. A focus is placed on a sustainably responsible production, taking into account economic, environmental, and social aspects with the aim of creating long-term benefits for our stakeholders.

This primarily involves an economical use of resources for our production, a high solution expertise, and guaranteeing quality while maintaining a sound financial conduct. We therefore focus on continuous monitoring of machines and performance, innovation, and sustainable investments in the latest technology. Potentials of automation and digitalization are actively pursued and implemented. The aim is to produce according to the highest possible standards throughout the Group.

A high degree of technical availability (operational readiness) of the plants is crucial in both cartonboard/paper and folding carton production. Continuous electronic monitoring of individual machines and sections of machines, revisions, maintenance and certifications as well as risk engineering in collaboration with insurance companies are among the most important preventive measures for maintaining continuous operations. Furthermore, division-wide back-up concepts secure readiness for supply even in the event of long-term interruptions of operations. The ability to produce individual products in various locations (mill back-up concept) constitutes a core element.

Meeting required quality standards and norms, especially in the areas of product safety and food contact, is an essential precondition for the sustainable competitiveness and attractiveness of our products and services. Constant quality assurance measures along the value added chain record compliance with high standards and enable traceability of products. Ongoing investment as well as R&D activities, market observation, and a longstanding collaboration with lobbies as well as national and international standardization bodies allow us to evaluate and consider new findings and interpretations as well as future developments in a timely manner.

We keep risks regarding investments, technical innovation, and integration of acquisitions limited by focusing on our core competences. Before their realization, investment plans are subjected to a standard multi-level approval process as well as clearly defined tendering procedures involving the specialist departments concerned. Negotiations and drafting of purchase agreements are carried out in cooperation between Corporate Sourcing, Divisional Technology and Corporate Legal. Where appropriate, tests or simulations are carried out under production or laboratory conditions. Investment projects are accompanied during implementation by a continuous control of qualitative as well as quantitative aspects. Product and process innovation is subjected to extensive test phases and generally assessed in pilot projects before being rolled out.

Procurement

The performance of both divisions requires the use of certain essential raw materials and input factors which are mainly obtained externally. In the division MM Board & Paper, these include especially fiber materials (recovered paper, wood, pulp), energy, chemicals, and logistics services. With regard to the division MM Packaging, these include primarily cartonboard and paper as well as inks and varnishes. For procurement there is basically a risk of availability concerning quantity and quality on the one hand as well as a price risk on the other hand. We particularly counter the risk of availability through regular market and demand monitoring, continuous contact with a majority of suppliers, and the development of long-term strategies to adapt the procurement of raw material to current conditions. We ensure compliance with the agreed properties by incoming goods inspections, continuous quality monitoring, and on-site visits at our suppliers. Where reasonable and possible, tenders are conducted for current purchasing volumes.

Fiber materials and chemicals are the most essential raw materials for MM Board & Paper and sufficiently available in Europe. The division procures them via its own European procurement organization. Ongoing monitoring and suitable security measures, such as capacity reservations, long-term contracts, and backup concepts, are partly successful in counteracting the increased shortage and price risk due to a higher global demand and in absorbing short-term price peaks. We consider the supply of fiber materials to be basically secure. Due to regulatory measures, there may be shifts in supply. The additionally required groundwood pulp is mainly produced internally in the cartonboard and paper mills and in our Norwegian fiber mill FollaCell.

In close cooperation between production and engineering, we take state-of-the-art measures to control the consumption and optimize the use of raw materials. In this regard, opportunities for substitution and adjustments of formulations are regularly evaluated.

Based on the profit center principle, purchase of cartonboard and paper for the MM Packaging division is conducted by its own procurement organization with continuous screening of various cartonboard and paper producers. With regard to securing supply, the increase in intercompany cartonboard procurement from the division MM Board & Paper has recently become noticeably more important.

Significant price changes of strategically important input factors are taken into account in sales pricing, e.g., by appropriate clauses.

Energy (gas, electricity, coal, heating oil) is an input factor of strategic importance, especially for the division MM Board & Paper. In risk assessment, purchase price, basic availability, and purchase opportunity are essential parameters. The latter refers to the physical availability of energy, which mainly depends on the political stability of producer and transit countries. Political conflicts, armed conflicts and natural disasters can have a significant impact on the availability and price risk of energy. In some cases, minimum purchase quantities are defined in energy agreements. If the level of those is not reached due to standstills or technical faults, compensation settlements are due (take-or-pay rule). In order to manage the risk, we rely on concluding long-term framework purchase contracts, continuously monitoring price developments and existing hedging contracts as well as linking production and sales planning to the purchase of energy. Medium-term purchasing policy is managed based on regular consultations between the management and an energy procurement with Group-wide responsibility. Furthermore, measures aimed at reducing specific energy consumption are continuously implemented. Substitution of fossil energy types takes place, for example, through local biomass or replacement fuel plants. Adjustments to selling prices in line with price developments on the energy market are implemented as quickly as possible. As a result of the ongoing war in Ukraine, the availability risk of energy remains increased.

Due to the political objective of reducing greenhouse gas emissions in the industry, all mills of the division MM Board & Paper are confronted with a regulatory risk regarding the availability of emission permits (CO₂ certificates) which are issued restrictively according to the "cap & trade" principle. Thanks to energy-efficient facilities and correspondingly good benchmarking results, MM Board & Paper continues to benefit from a partly free allocation of emission permits. It is expected that the EU will gradually reduce free allocations in order to create incentives for further emission reductions. The European Green Deal, which aims to achieve a climate-neutral EU by 2050, has recently come into play here. There is a dynamic CO₂ allocation in case of activity change by +/-15 %. MM Board & Paper procures missing certificates on the free market under the EU emission trading system, whereby a price risk must be taken into account, which is partially mitigated by means of forward contracts.

MM Packaging also faces the risk of indirect emissions pricing. Based on the European Effort Sharing Regulation or the Fuel Emissions Trading Act in Germany, certain sectors (heating and transport) face a CO₂ levy, which may have an impact on the cost side of both divisions as a result of onward charging.

Sustainability

Basically, sustainability describes sustainable management taking into account economic, ecological and social aspects with the aim of creating long-term benefits for our customers, shareholders, employees and the environment and society and minimizing the negative impact on the environment and society. In detail, this means, for example, using resources (recycled paper, cartonboard, virgin fiber, chemicals, energy, water, waste) responsibly and efficiently and ensuring fair working conditions as well as long-term qualitative growth, which will also ensure economic success in the future. Sustainability is therefore an integral part of the Group's strategy and one of the foundations of the long-term financial success of the Company.

Risks in this area consist of physical risks (e.g., floods, forest fires, storm damage, drought) and transitory risks (e.g., emission certificates, changing market requirements and consumer behavior, political developments). Physical risks can lead to direct production losses, supply bottlenecks or increased raw material prices. Transitory risks should primarily be regarded as compliance issues that do not result in short-term production losses, but in the event of violations negatively impact the "license to operate", which can be reflected economically in declining sales figures, increased penalties and CO₂ taxes, for example.

From a macro-political perspective, conflicts which can lead to production losses in conflict regions as well as to bottlenecks with regard to energy and raw material supplies must be taken into account in this connection.

Legal changes, such as those that are coming into force in particular as a result of the EU Green Deal, are intensifying the requirements for corporate sustainability, as financial indicators and non-financial indicators are increasingly being seen as dependent on one another (e.g., EU taxonomy). Consequently, sustainability is an important parameter for financial market valuations and investment decisions.

With regard to market requirements, it must be taken into account that sustainability, measured in terms of the product life cycle, is an important decision criterion for customers in the production of needs-based products. Sustainable packaging solutions are often included by customers themselves in their company's own sustainability goals.

Sustainability is also playing an increasingly important role in the competition for young talents. Companies in which sustainability is not implemented or is implemented in an untrustworthy manner will have disadvantages in the future when it comes to attracting and retaining young talents.

To secure and control the sustainability risk, MM relies on a central sustainability management, resource-efficient production of recyclable products, ambitious long-term (science-based) sustainability targets as well as the inclusion of sustainability criteria in the remuneration policy. Non-financial key figures are subject to comprehensive regular monitoring by a dedicated management system. A specific software solution was introduced for supply chain monitoring with regard to sustainability risks. Furthermore, all cartonboard and paper mills and selected sites of MM Packaging are certified according to PEFC (Program for the Endorsement of Forest Certification Schemes) and FSC® (Forest Stewardship Council). In addition, selected sites are certified according to EMAS (Eco Management and Audit Scheme) and/or ISO 14001 for environmental management systems as well as ISO 50001 for energy management. In the areas of product quality and/or food safety, all cartonboard-producing and almost all folding carton-producing sites are certified (ISO 9001, BRC, ISO 22000, EN 15593, ECMA GMP). Moreover, MM is oriented towards globally valid agendas and target frameworks, such as UN Sustainable Development Goals, EU Green Deal or Paris Agreement

Human Resources

The Group relies on qualified, motivated, and performance-oriented employees at all levels in order to achieve corporate success. We promote sustainable collaboration through continuous personnel development, education, appropriate remuneration, and incentive systems as well as a lived value and corporate culture with the aim of tying our employees to the Company in the long run and finding suitable top performers for vacancies. Targeted measures in HR marketing are implemented to ensure the Group's attractiveness as an employer.

The central "Group Human Resources & Internal Communication" department acts as a strategic partner of the management and is not only responsible for operational personnel issues at the Group's headquarters, but also develops target-group-specific standards for the entire MM Group. With a wide range of development and training programs we systematically establish conditions under which talents can grow, and up-to-date expertise is made available to the Company over the long term.

Corporate health management supports our employees through a large number of support and prevention measures with the goal of maintaining health and performance at a high level over their entire working lives.

HR agendas in 2022 were characterized by two large acquisitions in the division MM Packaging (Eson Pac, Essentra Packaging). Due to this strategic realignment, organizational structures were changed and new functions established. Changes of management structures and teams, but also system and process decisions were necessary. This process will be continued in 2023, covering in particular the integration and transformation of the plants of Essentra Packaging.

Pensions/severance payments/pre-retirement

The majority of employees in the Group is covered by defined contribution plans as part of statutory pension schemes. Apart from statutory pension schemes, the Group has also made performance- and contribution-based pension commitments to certain employees on the basis of individual commitments and company agreements. Furthermore, there are performance- and contribution-based severance obligations and obligations as part of statutory pre-retirement schemes. For monitoring and minimizing risks, a clearly structured process of data provisioning, plausibility checks, and verification at the level of individual companies or the Group is pursued and individual commitments are monitored by the Group's headquarter.

Liquidity risk is addressed through the use of qualifying insurance policies in Austria and Germany, pension funds in Great Britain and the Philippines, and a collective foundation in Switzerland to cover assets. The investment involves an assessment risk. External fund assets are invested as conservatively as possible in line with legal requirements (low equity component, corporate rather than government bonds).

The current level of interest rates has methodically led to an increased discount rate compared to previous years, which decreases the actuarial present value of obligations. The resulting deduction item in equity can be classified as absolutely manageable in relation to equity. The projected expenses for pensions and severance payments remain stable.

Financial risks

Corporate planning is based on professional forecasts, assessments, and assumptions concerning future economic and financial developments in the Group. We try to hold the risk of false estimation at bay by a close cooperation of the mills with the specialist departments of the Group and the divisions within the framework of a clearly defined multi-step planning process.

We counter financing and liquidity risks of the Group in particular by a centrally managed cash and credit management, the careful selection and a continuous monitoring of national and international banking partners, and the availability of sufficient credit lines at any time. Compliance with the covenants is monitored regularly to minimize risk. In addition, the factor of sustainability has an impact on both availability and cost risk, as so-called ESG financing is gaining in importance and the provision of financing and the level of financing interest rates are therefore increasingly dependent on ESG criteria. These are controlled by Group Sustainability via corresponding key figures.

Foreign exchange risks are monitored continuously with system support and are limited or reduced by suitable hedging measures. Hence, the focus is placed on balancing risks naturally by matching receivables and liabilities at individual subsidiaries and at Group level as well as foreign exchange forward, swap and option contracts. Currency hedging transactions are mainly performed on a central currency trading platform. Currencies that are hedged for fluctuations of their exchange rates are in particular the British pound, the US dollar as well as the Euro for the companies with functional currencies other than the Euro. The related price risks are reduced as far as possible by currency congruence in business transactions and by price adjustment mechanisms in long-term agreements. Derivative financial instruments are neither used for trading nor for speculative purposes.

A central management system continuously optimizes working capital and minimizes impairment risks for inventories. The risk of default on accounts receivable is minimized by constant credit assessment as well as the obligation to offer credit insurance for all customers, with the exception of selected international customers that enjoy the highest credit rating.

Accounting

The Management Board is responsible for establishing and developing an appropriate internal monitoring and risk management system for accounting as well as financial reporting and for preparing the consolidated financial statements. This ensures the completeness, reliability, and transparency of financial information. In addition, the appropriateness and efficiency of processes as well as compliance with statutory, contractual, and internal regulations is guaranteed.

The accounting process covers all essential tasks which ensure that accounting-relevant information is recorded and processed completely, accurately, and in time and that financial reporting is presented in accordance with the applicable accounting standards.

In the organizational and operational structure, clear responsibilities are defined for the individual companies and the Group. The central departments "Group Accounting" and "Planning and Reporting" are responsible for developing up-to-date uniform Group guidelines as well as for organizing and controlling financial reporting in the Group.

The reporting to the Management Board and Supervisory Board is effected in a regular, comprehensive, and timely manner. Compliance with internal Group guidelines and processes concerning the recording, posting, and accounting of business transactions is continuously monitored. The data processing systems used are developed in a targeted manner and are continuously improved. Accounting processes and financial reporting are reviewed regularly for potential risks. Improvement measures are taken as quickly as possible and implemented swiftly. Focus audits are carried out by auditors and the Internal Audit department. A large number of measures, such as training, reviews and coordinated Group-wide procedures, ensure that the Group's accounting is carried out in accordance with IFRS.

Information technology

Central IT management is based on ISO 31000, information security of the central IT on ISO 27001. The risk of a breakdown of central data processing is limited by a geographically separated backup computer center and by a variety of preventive measures and regular checks. Risks regarding information security are countered by a wide range of security measures which are embedded in a Group-wide information security management system (ISMS). The function of an Information Protection Officer ensures the Group-wide establishment and continuous update of security standards.

Cyber and IT risks remain a serious threat to MM. Attacks are becoming more professional and agile, steadily increasing the risk of data loss, business interruption and financial damage. It is important that MM continues to take proactive measures to protect itself against these threats. These include constant monitoring of all IT systems, automated protection mechanisms, and a well-developed business continuity strategy.

Ransomware development remains a significant risk for MM. The risk of ransomware attacks is expected to continue to increase due to the constant development and distribution of malware variants. MM therefore needs to continuously improve its security and defenses in order to be protected against attacks. This includes regular back-ups, training for employees, and the implementation of an incident response plan.

The re-certification according to ISO 27001 proves that MM has established a good security management and is continuously improving to ensure the protection of sensitive data and IT systems.

Other risks

Compliance risks arising from possible non-conformity with standards, laws, ethical codes of conduct, and, where applicable, voluntary commitments, such as the MM Code of Conduct or the universal principles of the UN Global Compact, are managed especially by means of protective measures in the systems, regular, systematic compliance monitoring, the four-eyes principle as well as Group-wide guidelines and trainings. Furthermore, the function “Group Legal” is established, which is responsible for monitoring and controlling the compliance risk and, if necessary, by calling in external experts. The aim is to ensure strict adherence to compliance requirements. This is not least intended to prevent the increasing risks of a breach of the law and possible sanctions resulting from ever more stringent regulation. To counter any improper actions, in addition to the stipulation of approval requirements, in particular protection by the systems, a strengthened internal control system and a modern whistleblowing mechanism are in place.

The corporate governance report which is an integrated part of the annual report is available on our website at <https://www.mm.group/en/about-us/responsibility/corporate-governance/>.

In addition to the risks listed here, the Group may be exposed to further risks. We are currently not aware of any such risks or classify them as insignificant.

5 DISCLOSURES ACCORDING TO SECTION 243 A PARA. 1 OF THE AUSTRIAN COMMERCIAL CODE

Composition of capital, stock categories

Please refer to the information provided in the consolidated financial statements under note 13.1.

Restrictions concerning the voting rights and the transfer of shares

Approximately 59 % of the shares are held by the core shareholder families in a syndicate. There is a syndicate agreement which regulates the transferability of shares within the syndicate and to outside parties. Issues that concern the Ordinary Shareholders' Meeting are decided by the syndicate with 65 % of the voting rights, measured by the total number of syndicate votes cast. Modifications of the syndicate agreement (concerning changes in voting rights, changes in the purpose or object of the syndicate, creation or withdrawal of special rights) require unanimity, measured by the total number of all syndicate votes.

Direct or indirect participation in capital of at least 10 %

According to the information provided to the Company, there were the following minimum participations of 10 % in the capital at year-end 2022:

MMS Mayr-Melnhof-Saurau Beteiligungsverwaltung KG
CAMA Privatstiftung

Owners of shares with special control rights and a description of these rights

There are no shares with special control rights.

Type of voting rights control for capital participation by employees, if they do not directly exercise the right to vote

There is no such capital participation model for employees.

Provisions for appointment and revocation of members of the Management Board and the Supervisory Board and regarding alteration of the Articles of Association of the Company that do not arise directly from the Act

There are no provisions of this type.

Authorization of the members of the Management Board that does not arise directly from the Act, in particular with regard to the option of issuing or repurchasing shares

There are no authorizations of this type.

All significant agreements to which the Company is a party and that take effect are modified or terminated in the event of a change of control of the Company as a result of a takeover offer as well as its effects; agreements which would significantly damage the Company if made public are excepted, unless the Company is obligated to make such information public as a result of other statutory provisions

The protective clause with regard to the disclosure of this information is invoked. The scope of the business in question is considered reasonable.

Existence and significant content of compensation agreements between the Company and the members of its Management and Supervisory Boards or employees in the event of a public takeover offer

There are no agreements of this type.

6 CONSOLIDATED NON-FINANCIAL STATEMENT ACCORDING TO SECTION 267 A OF THE AUSTRIAN COMMERCIAL CODE

To comply with section 267 a of the Austrian Commercial Code, the option to set up a separate consolidated non-financial report was chosen (see pages 89 et seq.).

7 OUTLOOK ON THE FINANCIAL YEAR 2023

This outlook reflects the assessment of the Management Board as of March 13, 2023, and does not take into consideration the effects of any acquisitions, disposals, or other structural changes in 2023. Previous and subsequent forward-looking statements are subject to known as well as unknown risks and uncertainties that may result in actual events differing from the forecasts made here.

Geopolitical and macroeconomic uncertainties continue to determine our operating environment. While some input prices are still declining, the destocking process has also progressed since the beginning of the year as in the last months of the previous year. In the MM Board & Paper division, market-related machine downtimes are necessary in the 1st quarter. As announced, in the first three quarters there will also be longer machine downtimes because of major investments at the Frohnleiten, Neuss and Kolicovo cartonboard mills. Prices are predominantly decreasing. Therefore, as expected, a significant decline in volume and results is foreseeable in the Board & Paper division in the current year.

In the division MM Packaging, demand has weakened slightly in the first two months, but shows resilience. Structural adjustment and cost optimization measures will be further pursued.

Irrespective of the transition year in the MM Board & Paper division, our business model with a focus on sustainable packaging for everyday consumer goods remains resilient and attractive in the long term.

The balance sheet of MM and ongoing cash generation are solid. Our investment activity will remain elevated in 2023 in order to further strengthen the competitiveness and growth capacity of the MM Group. Especially in the course of the modernization of three cartonboard machines as well as value-enhancing, technological innovations in the area of pharmaceutical and beauty packaging, we expect a capex volume of more than EUR 400 million this year. The objective remains to continue our growth with sustainable and innovative consumer goods packaging in the long term with an attractive return on capital employed.

Vienna, March 13, 2023

The Management Board

Peter Oswald m. p.

Franz Hiesinger m. p.

Consolidated Non-financial Report

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Focus on MM sustainability topics

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2. Raw materials
3. Water

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5. Human rights
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Disclosures on the Consolidated Non-financial Report

Appendix: MM sustainability performance at a glance

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Overview of non-financial indicators

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Independent limited assurance report

MM in the context of sustainability

INTRODUCTION

The MM Group stands for sustainability. Ever since the Company was founded in 1888, the idea of sustainability has always been present at MM due to its origin in forestry. With innovative, recyclable packaging and paper products made from renewable raw materials, we are at the forefront of the fight against plastic waste.

GRI 2-6
GRI 2-23 While we defined sustainability as part of our Group strategy in 2021, this report documents the further development in the business year 2022. On the one hand, the focus is placed on our activities regarding the protection of the environment (“Planet”), attractive working conditions and occupational safety (“People”) as well as on our future-oriented management of investments and innovation including the cooperation with third parties to achieve systemic change (“Prosperity”). On the other hand, we strive to achieve the goals that we defined in 2021. This requires an experienced central management and harmonized systems, tools and standards, in which we have invested significantly.

At the forefront we focus on our conviction that transparent sustainability management and the disclosure of progress (and failures) will enable us to be even more competitive and successful in the long term. The continuous open communication with our stakeholders is very important to us. While a comprehensive stakeholder dialog was conducted in 2021, which forms the basis of our sustainability strategy that we still apply today, we focused on the stronger involvement of internal stakeholders in 2022. This resulted in the “MM Message House”, in which we define our corporate purpose “securing a bright future for packaging, people and planet” and the pursuit of a unifying corporate culture with shared values.

GRI 2-28 In April 2022, our Science-Based Targets were officially recognized and have since served as the central orientation points of our sustainability strategy. In this connection, MM joined the global initiative “Business Ambition for 1.5°C” in 2021 in order to contribute to limiting global warming to 1.5 degrees by 2031 through appropriate measures. In addition, we succeeded in further improving our climate rating by the renowned CDP (Disclosure Insight Action) in the business year 2022. For the first time, we achieved “Leadership Status” in the “Climate Change” category with an “A” rating. We achieved a “B” rating in the “Forest” and “Water” categories, after having participated in all three assessment categories for the first time. This shows that ecological sustainability is implemented and documented holistically at MM in an effort to protect the climate, forests and water bodies. Through this exemplary performance and our transparent approach to sustainability, we offer our stakeholders and especially our customers a decisive added value.

Circular economy has long been an intrinsic part of our business as we focus on cartonboard and paper products which are predominantly produced using renewable raw materials and are fully recycled after use. In spite of all efforts undertaken to increase recyclability, plastic will never be as recyclable as cartonboard. Therefore, we strive to offer new opportunities for the substitution of plastics and create an attractive future potential for MM in the ongoing discussion on packaging through increased innovation and sustainable investment activities in the Group and through competitive cartonboard and paper solutions.

As a responsible Company, we are committed to protecting not only the environment, but also the safety and health of our employees. We are therefore pleased that our adjustments in the area of “Operational Safety and Health” are already having an effect and that we were able to significantly increase occupational safety in our plants in the business year 2022.

We are aware that we can only improve systemic change together with our customers, suppliers and other stakeholders in order to make the value chain even more sustainable. Therefore, we are a member of the UN Global Compact and are committed to the United Nations Sustainable Development Goals (SDGs) and base this report on the standards of the Global Reporting Initiative (GRI standards option “in accordance”).

This report has been prepared “in accordance” with the standards of the Global Reporting Initiative. The topics described below were identified in a materiality analysis in 2021 in which the interests of our stakeholders were taken into account. In this context, the analysis and definition of the material topics for the MM Group’s 2022 sustainability strategy is still valid. At the same time, we strive to continuously optimize and complete our transparency in the ongoing dialog with internal and external stakeholders.

In this sense, we include all current sites of the divisions MM Board & Paper and MM Packaging with full-year values in our non-financial key figures. The acquisitions of Eson Pac and Essentra Packaging of the Packaging division are included, whereas the sold Russian packaging plants in St. Petersburg and Pskov are excluded. GRI 2-4

The fact that the MM Group is able to make continuous progress both economically and ecologically as well as in social matters is due to the high sense of responsibility and performance of the entire MM team. We would like to expressly thank our employees for their commitment.

This sense of responsibility which we demand of ourselves but also of our business partners is set out in our Code of Conduct. This was expanded in 2022 to include, among other things, a commitment to the universal principles of the UN Global Compact, which include the areas of labor standards, human rights, environmental protection and anti-corruption. The Group’s objectives and resource allocation are based on these principles. GRI 2-24

BRIEF PROFILE OF THE MM GROUP

GRI 2-6

The MM Group is a leading global producer of cartonboard and folding cartons for consumer goods packaging with an attractive offer in kraft papers and uncoated fine papers for various end applications. MM promotes sustainable development through innovative, recyclable packaging and paper products.

The MM Group has an integrated structure with the two divisions MM Board & Paper and MM Packaging, which trade with each other on market terms. Cartonboard is the most important raw material for folding cartons, which are mainly used for the packaging of everyday consumer goods. With approximately 15,600 employees the Group has an annual production capacity of approximately 2.0 million tonnes of cartonboard, 260,000 tonnes of kraft paper and 390,000 tonnes of uncoated fine paper, as well as a production of approximately 4.1 billion m² of packaging. In 2022, including recent acquisitions, the MM Group achieved sales of approximately EUR 4.7 billion. MM is present in 27 countries with 6 cartonboard and paper mills, 65 packaging sites and one fiber mill and sales to over 140 countries worldwide, with Europe as the main market.

The wide range of products and services includes cartonboard grades for a variety of consumer goods industries in the food & specialties and premium sectors. Papers are used for packaging solutions and technical applications as well as for products in the office sector. In line with the product portfolio, virgin fibers account for about 52 % of the total fiber demand and recycled fibers for 48 %. In addition to fibers, the most important input factors in cartonboard production are energy, which is mainly obtained from natural gas, and coating chemicals for the cartonboard surface. Unprocessed cartonboard is mainly used in the packaging production. All cartonboard and paper products of MM Board & Paper are produced using renewable fibers. MM Board & Paper’s customers are folding carton producers, consumer goods manufacturers as well as traders.

MM Packaging is a globally leading producer of folding carton packaging in Europe with a leading position in several non-European countries. The focus is on the production of packaging for everyday consumer goods in the Food & Specialities and Premium markets. While the first market serves a broad spectrum of food and non-food applications, the premium business comprises highly specialized packaging markets such as pharma, healthcare, beauty, personal care, cigarette and luxury. Recycled and virgin fiber-based cartonboard are used in roughly equal parts as raw materials. In addition to cartonboard and paper, inks, varnishes and die-cutting tools are significant input factors in the packaging production, which is more labor-intensive but less energy-intensive than cartonboard and paper production. MM Packaging's customers are both multinational and local consumer goods producers.

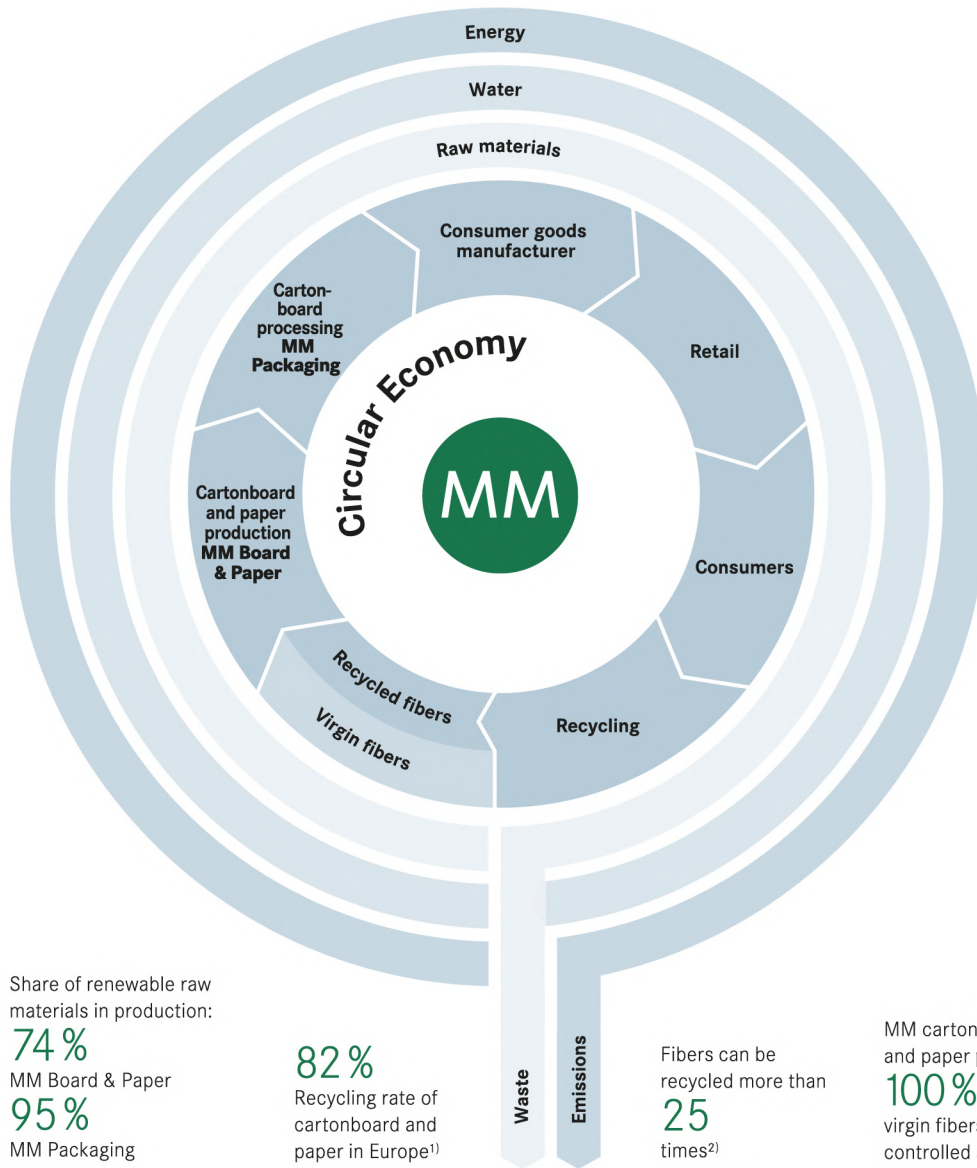
CIRCULAR ECONOMY AND PLASTIC SUBSTITUTION

The circular economy has long been an intrinsic part of our business activities due to our core business: the production of cartonboard and paper products are manufactured using primarily renewable raw materials and are fully recyclable after use. Therefore, we strive to offer new possibilities for the substitution of plastics and create an attractive future potential in the ongoing discussion on packaging materials by developing innovative and competitive cartonboard and paper solutions. In connection with the EU Circular Economy Package, the Packaging and Packaging Waste Regulation (PPWR) and the Single Use Plastics Directive (SUPD) are of utmost relevance to MM. The aim is to reduce packaging waste and harmonize it across Europe. The MM Group sees this as a driver for innovation, especially with regard to increasing the recycling share and the substitution of single-use plastic packaging in the food service sector.

Sustainable value added and growth in the core business

We are committed to excellence in industrial production, innovation and technology leadership, and outstanding sustainability performance in areas such as resource use, circular economy, safety and development of our employees, respect for human rights and anti-corruption. Our strategy focuses on the sustainable generation of value and growth along the supply chain with a focus on the two core divisions MM Board & Paper and MM Packaging. Through our Group-wide sustainability management, we are able to systematically measure and develop MM's sustainability performance and thus meet the high demands of the market and our customers.

We focus on the development and optimization of recyclable packaging solutions made of cartonboard and paper in the conviction that we can meet the expectations of the market in the long-term and achieve success with products that are produced sustainably and add value. In doing so, we open up new sales areas and penetrate existing markets with highly competitive and innovative products and processes. We strive for growth both organically and through acquisitions.



Cartonboard and paper packaging mainly consist of renewable raw materials and are at the core of a circular economy. This is because waste paper is reused as a resource and combined with virgin fibers from responsibly managed forests to continue the cycle.

¹⁾ Source: Eurostat; average recycling rate of the EU member states in 2020

²⁾ Source: Putz, H.-J.; Schabel, S.: Der Mythos begrenzter Faserlebenszyklen. In: Altpapier im Fokus – Sicherung des Recyclings durch innovative Technologien und Nutzungskonzepte : PTS-Fachseminar AG 1821, Dresden. PTS, [Konferenzveröffentlichung], (2018)

NON-FINANCIAL TOPICS AND THEIR CONNECTION TO BUSINESS DEVELOPMENT

GRI 2-6 The strategic examination of non-financial topics in connection with business development allows for a holistic risk and opportunity management. For the MM Group, there are various cost and sales drivers in the areas of “Planet” (environment), “People” (employees) and “Prosperity” (society) which have or can have an impact on current and future business success.

A relevant sales driver is the focus on sustainable packaging solutions, which we try to use by continuously adapting our offer and innovation efforts to the changing market and consumer preferences. Our human capital, i.e., our employees, are a key value driver and the motor for ongoing necessary changes and adjustments. The MM Group’s multi-layered training and development programs as well as measures to retain and recruit employees help to ensure that the Group has a sustainable supply of qualified employees to secure its position, further development and growth.

Costs in connection with non-financial matters arise in particular with regard to personnel, energy requirements, resource consumption and waste generation of the MM Group, but also from raw material shortages as well as CO₂ certificates. Due to the EU’s package of sanctions against Russia, the MM Group focused on rising energy and wood prices as cost drivers in 2022. Future cost drivers could arise primarily from regulatory changes, nationally or in the EU. Costs can also arise from cybersecurity risks, which MM counteracts with comprehensive security concepts.

In contrast, broad social developments represent future opportunities for the MM Group’s business model. For example, advancing digitalization and automation increase efficiency in production processes and consequently enable cost savings. Developments in the transport and logistics sector could contribute to fuel or personnel cost savings. The trend towards urbanization and smaller households as well as growing private consumption in emerging countries could contribute to sales increases in the future, e.g. through an increased demand for smaller product units. The acquisitions also significantly increased market shares in the resilient “Pharma” segment.

The current business development of the MM Group was characterized by a high level of resilience to the COVID-19 pandemic and a high degree of continuity. In addition, there were significant acquisition and investment decisions as well as necessary structural adjustment measures. However, taking into account the structural adjustments, the effects of non-financial topics and the correlations of related key figures with the annual financial statements did not show any significant changes or special conspicuous features for the reporting periods 2021 and 2022. We consider the measures taken within the framework of sustainability management to be effective in an overall view of non-financial and financial aspects with regard to minimizing risks and optimizing opportunities in the Group. The following key figures from the value added statement confirm this view, taking into account one-off effects.

Stakeholder participation in net value added

The value added of the Group is calculated based on the difference between the Company's performance and the services purchased from third parties. In the statement of use, the share of all participants in the net value added is shown.

Value added

(in millions of EUR)	2022	2022	2021	2021
Origin:				
Sales	4,682.1		3,069.7	
Other operating income	70.9		84.9	
Change in finished goods and own work capitalized	120.4		1.5	
Financial result and result from investments	(43.4)		(25.1)	
Total operating revenue	4,830.0		3,131.0	
(-) Expenditures on purchased goods and services	(3,446.6)		(2,174.0)	
(-) Depreciation and amortization	(219.6)		(151.3)	
Net value added	1,163.8	100.0 %	805.7	100.0 %
Distribution:				
Employees	(404.7)	(34.8 %)	(320.0)	(39.7 %)
Social benefit costs	(172.1)	(14.8 %)	(147.8)	(18.3 %)
Public authorities	(241.7)	(20.8 %)	(147.2)	(18.3 %)
Non-controlling (minority) interests	(1.5)	(0.1 %)	(1.5)	(0.2 %)
Shareholders' dividend (proposed for 2022)	(84.0)	(7.2 %)	(70.0)	(8.7 %)
Company	259.8	22.3 %	119.2	14.8 %

The MM Group generated a corporate output of EUR 4,830.0 million in the financial year 2022 compared to EUR 3,131.0 million in the previous year. After deducting intermediate inputs as well as depreciation and impairments of EUR 3,666.2 million (2021: EUR 2,325.3 million), a net value added of EUR 1,163.8 million (2021: EUR 805.7 million) was achieved, of which 34.8 % or EUR 404.7 million (2021: 39.7 % or EUR 320.0 million) went to our employees. A slightly higher share of 35.6 % or EUR 413.8 million (2021: 36.6 % or EUR 295.0 million) was transferred to the public sector and social security. A total dividend of EUR 84.0 million or 7.2 % of net value added is to be distributed to the Company's shareholders for the financial year 2022 (2021: EUR 70.0 million or 8.7 %). Profits in the amount of EUR 259.8 million or 22.3 % of net value added will be retained in the Group (2021: EUR 119.2 million or 14.8 %).

EU TAXONOMY DISCLOSURES

The goals of the EU Green Deal, such as climate neutrality in Europe, can only be successfully achieved if money flows increasingly lead to sustainable investments. For this purpose, the EU Commission has elaborated the Taxonomy Regulation, which will make sustainability financially measurable and comparable, leading to increased transparency regarding sustainability activities. In the year 2021, the environmental targets “climate protection” and “adaption to climate change” were published, with four more environmental targets (on circular economy, water, biodiversity and pollution) to follow. As a listed Company, the MM Group is obliged to disclose its activities in accordance with the Taxonomy Regulation.

The MM Group has reviewed the economic activities already published by the EU Commission for the environmental objectives “climate change mitigation” and “adaptation to climate change” with regard to their relevance for its own economic activities. In accordance with Delegated Regulation (EU) 2021/2178, the key performance indicators (KPIs) related to turnover (Turnover KPI), capital expenditure (CapEx KPI) and operating expenditure (OpEx KPI) for 2022 are disclosed in this report.

Taxonomy eligibility

An initial analysis showed that the turnover-relevant activities of the MM Group in 2022 (as in 2021) are not reflected in the activity descriptions of the EU Taxonomy. Therefore, the MM Group will not be able to report any turnover-relevant taxonomy-eligible activities in 2022. For the KPIs on OpEx and CapEx, this means that only individual measures (category C) are reported. For example, for the reporting period, no CapEx and OpEx (category A and B) on efficiency measures, which account for a significant part of the total CapEx and OpEx of the MM Group can be reported as taxonomy-eligible. As a result, only a small proportion of CapEx and OpEx projects are taxonomy-eligible and taxonomy-aligned. Compared to 2021, the analysis fully included the project level and considered all CapEx projects for 2022, reporting reliable and accurate information in the context of the EU Taxonomy. The projects were cross-checked against the activities listed in Annex 1 to EU Regulation 2020/852 for taxonomy eligibility. This process was carried out in close cooperation with the respective project managers and information on the projects was compiled with regard to their significant contribution to climate protection.

The acquisitions of Essentra and Eson Pac in the financial year 2022 resulted in additions which can be partly allocated to the taxonomy activities 7.7, 6.5 and 6.6. The MM Group has invested in rail infrastructure at some of its sites in order to continue to enable inbound and outbound transport with low-emission means of transport in the future. These investments are reported in activity 6.14. Furthermore, individual measures were implemented at the MM Group’s sites to increase energy efficiency and to expand renewable energy. Photovoltaic and solar thermal systems were installed at several MM Group sites in order to increase the share of renewable energy in production. The related investments are reported in taxonomy activity 7.6. Charging stations for electric vehicles were installed at several sites to promote the transition to electric mobility. Investments for this are reported in activity 7.4. In addition, investments in renovations (taxonomy activity 7.2) and the switch to LED lighting equipment of the highest two energy efficiency classes (taxonomy activity 7.3) are reported at the sites. New buildings were constructed at various sites during the reporting period. Related investments for this are reported in category 7.1. An overview of the taxonomy-eligible activities is shown in the table below.

Economic activities (1)	Code(s) (2)
Transport by motorbikes, passenger cars and light commercial vehicles	6.5 (Annex I) / H49.3
Freight transport services by road	6.6 (Annex I) / H49.4
Infrastructure for rail transport	6.14 (Annex I) / F42.12
Construction of new buildings	7.1 (Annex I) / F41
Renovation of existing buildings	7.2 (Annex I) / F41, F42
Installation, maintenance and repair of energy-efficient equipment	7.3 (Annex I) / F43
Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings).	7.4 (Annex I) / F43
Installation, maintenance and repair of renewable energy technologies	7.6 (Annex I) / F43
Acquisition and ownership of buildings	7.7 (Annex I) / L 68

Taxonomy alignment

In order to check the taxonomy-eligible projects for alignment with the EU Taxonomy, the taxonomy alignment of the materials used was checked with the manufacturers of the materials for the projects shown in activity 7.3. For the projects reported in the EU taxonomy activities 7.4 and 7.6, project-specific climate risk assessments were carried out. The climate risk analyses did not reveal any critical risks for the MM Group. Adaptation measures were developed for the respective minor risks identified, which are communicated to the responsible persons at the sites and will be further developed into adaptation plans in the future. As there are no investments in connection with adaptation plans in the reporting period, no investments are reported for the objective “Contribution to climate adaptation” of the EU Taxonomy for 2022.

At the level of the MM Group, it was verified that measures and guidelines are in place to ensure minimum safeguards requirements. The MM Group’s analysis of the requirements is based on the information provided in the European Commission’s final report on minimum safeguards, which was published on October 11, 2022. The MM Group’s principles of conduct are summarized in our Code of Conduct. They include the universal principles of the UN Global Compact and constitute a guideline for the responsible actions of our employees in order to comply with the ethical guiding principles from the areas of legal compliance, human rights and labor standards within the Group. The MM Group has extensive due diligence processes in place to ensure and verify compliance with these principles and guidelines.

KPI related to turnover (Turnover KPI)

Due to the dynamic regulatory developments of the EU Taxonomy, the delegated acts and the relevant annexes were used for the assessment of the key performance indicator (KPI). The economic activities described therein are not in line with the turnover-related content-related activities of the MM Group, as no activities are included that reflect the activities of the paper and cartonboard industry as well as the production of fiber-based packaging. Therefore, it is not possible for the MM Group to report taxonomy-aligned turnover for the reporting period.

The total denominator of sales corresponds to the net sales according to the consolidated income statement (page 173) in the notes to the annual report 2022.

The EU Commission has announced the publication of further environmental targets. These, amongst others, include an environmental target on the topic of circular economy; in this connection, special attention is to be paid to the packaging industry and the recyclability of packaging solutions. In connection with the environmental target on the topic of circular economy, the MM Group expects the economic activities contained therein to be applicable to the Company’s core business and that, as a result, a KPI related to turnover can be reported.

KPI related to capital expenditure (CapEx KPI)

The basis of the KPI is formed by data from “Corporate Planning and Reporting” on all investment projects that led to an addition to fixed assets in the reporting period. The denominator of the indicator corresponds to the sum of additions to fixed assets and additions to the scope of consolidation for tangible and intangible assets according to the tables “Development of property, plant and equipment 2022” (page 196) and “Development of intangible assets including goodwill 2022” (page 199) in the consolidated financial statements 2022. The project data sets resulting from the preparation were subsequently reconciled with the activities listed in Annex 1 to EU Regulation 2020/852 and checked for EU Taxonomy eligibility, as explained in the chapter on taxonomy eligibility. The numerator of the indicator results from this reconciliation during which extensive information on the taxonomy-eligible projects was obtained in close cooperation with the operating locations. Through a uniform, granular reporting structure of the investment projects, double counting is avoided and all projects relevant for the numerator are recorded.

In a further step, the taxonomy-aligned activities were checked for alignment with the EU Taxonomy, as described in the chapter on taxonomy alignment. With 92.7 % of all taxonomy-aligned activities, investments in renewable energy technologies represent the major part of these. Within this activity the installation and the expansion of photovoltaic plants and solar thermal plants to generate energy for production are reported. The installation of charging stations for electric vehicles enables e-mobility and is therefore another relevant reported taxonomy-aligned activity. The taxonomy-aligned part of the numerator is composed exclusively of additions to tangible assets.

In the reporting period, 0.16 % is reported as taxonomy-aligned and 9.38 % as taxonomy-eligible capital expenditure, as shown in the table “EU taxonomy KPI CapEx” (page 153) in the appendix of the consolidated non-financial report 2022. The low share is due to the fact that the turnover-relevant activities of the MM Group are not covered by the EU taxonomy in the reporting period and therefore only individual measures of the category CapEx C are shown here.

KPI related to operating expenses (OpEx KPI)

The basis of the KPI is formed by data from “Corporate Planning and Reporting” on the operating expenses of the individual sites. The sum of these represents the denominator of the key performance indicator. In order to determine the numerator, information on operating expenses that can be allocated to relevant activities was gathered from all sites. Double counting is avoided by directly matching the information with the responsible persons at the sites. For taxonomy-eligible projects, a check for alignment with the EU Taxonomy was carried out by checking the do-no-significant-harm criteria. In the reporting period, 0.57 % of the total OpEx is reported as taxonomy-eligible OpEx. The low share is due to the fact that the turnover-relevant activities of the MM Group are not covered by the EU Taxonomy in the reporting period and therefore only individual measures of the OpEx C category are reported here.

		MM Group
CapEx	A.1. taxonomy-aligned	0.16 %
	A.2. taxonomy-eligible	9.38 %
	Non-taxonomy-eligible (B)	90.46 %
OpEx	A.1. taxonomy-aligned	0.00 %
	A.2. taxonomy-eligible	0.57 %
	Non-taxonomy-eligible (B)	99.43 %

The detailed breakdown of the MM Group’s EU Taxonomy reporting can be found in the appendix on the pages 152-154.

CLIMATE-RELATED RISKS (TCFD)

The MM Group follows the framework of TCFD (Task Force on Climate-Related Financial Disclosures) to best integrate climate change-related risks and opportunities into existing reporting structures. The TCFD recommendations are divided into the four areas of governance, strategy, risk management and metrics and targets and support companies in reporting climate-related risks and opportunities in a consistent and comparable way. As part of the TCFD-aligned reporting and to better understand the risks, impacts and opportunities associated with climate change, the MM Group conducted a global risk assessment in 2022.

Metrics for assessing climate-related risks

The climate-related risk assessment is based on RCP (Representative Concentration Pathway) climate scenarios provided by IIASA (International Institute for Applied System Analysis) and integrated into the IPCC (Intergovernmental Panel on Climate Change) AR5 Assessment Report. The risks considered are elements of the European Commission's list in Appendix A of Annex 1 to EU Regulation 2020/852, as relevant in the context of EU Taxonomy reporting.

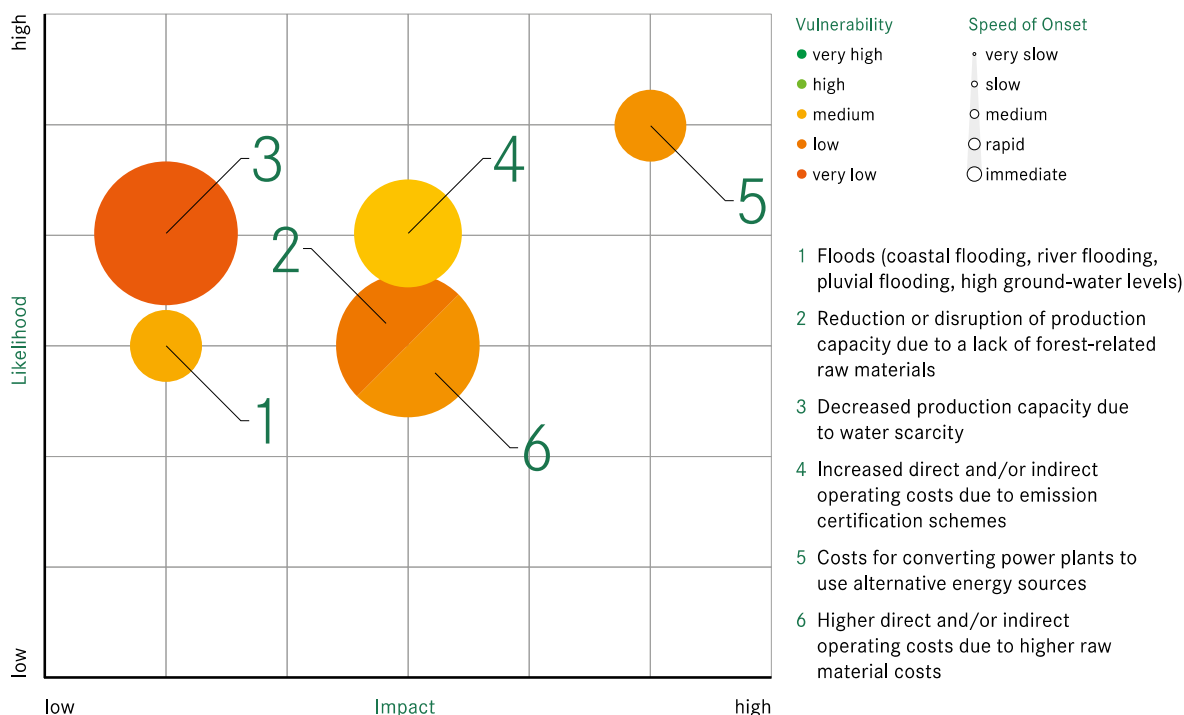
For each identified risk, four key parameters are assessed: Impact, Vulnerability, Probability and Timeframe. Impact as an assessment parameter for climate-related risks is defined as the potential impact on the MM Group's sales per financial year caused by a corresponding climate-related risk. Vulnerability as a parameter for climate-related risk assessments consists of a variety of concepts and elements that describe the propensity or predisposition to be adversely affected. The concept of vulnerability for this report consists of the three elements of reversibility, impact on reversibility, and the ability to reduce the magnitude of a particular climate-related risk. To better understand the frequency and the probability of occurrence of a climate-related risk, a probability parameter has been introduced. The IPCC AR5 Assessment Report was the main source for this process. This was also closely linked to the interpretation of the time frame in which climate-related risks are expected to occur. Three different timeframes were therefore defined and applied to climate-related risks: short-term (5 years), medium-term (10 years) and long-term (20 years). With these four parameters as a basis for risk assessment, specific climate-related risks and their impact on the MM Group can be objectively analyzed, quantified and compared.

Within the framework of the climate-related risk assessment, three physical and three transitory risks were identified as particularly essential for the MM Group.

The physical risks associated with flooding and water scarcity depend on the future development of precipitation patterns, which can be estimated by considering the RCP scenarios. However, the impact of the risks also depends on the structural adaptation of the infrastructure to the respective risks. One physical risk raised is damage to infrastructure and downtime of production in the case of flooding events (*risk 1*) which, depending on the geographical location, can be triggered by heavy precipitation and/or rising average sea level. On the other hand, periods of drought can lead to water scarcity, resulting in a reduction in production capacity (*risk 3*). In addition to water, cartonboard production is also heavily dependent on wood as a raw material. Calamity-related forest situations (e. g. forest fires, windthrow, bark beetle outbreaks) which become more frequent as climate change progresses and precipitation patterns change lead to a reduction in certified wood quantities in European purchasing areas and can thus cause a reduction or disruption of production capacity due to a lack of forest related raw material (*risk 2*).

Increased indirect and/or direct operating costs due to emission certification schemes (*risk 4*) and due to increased raw material costs (*risk 6*) have been identified as significant transitory climate-related risks. As the MM Group operates in an energy-intensive sector, there is a risk of rising energy and electricity costs due to the adjustment of carbon pricing mechanisms within the EU. Rising operating costs at other companies within the MM Group's supply chain could also lead to higher raw material costs. Another transitory risk is the unavailability of natural gas which is used in cartonboard production. This could result in costs for the conversion of power plants to the use of alternative sources of energy (*risk 5*).

Assessment of climate-related risks



COVID-19 PANDEMIC

GRI 2-6 Throughout the financial year 2022, the effects of the COVID-19 pandemic on non-financial matters and the business model of the MM Group were noticeable. Due to the system relevance of cartonboard and cartonboard packaging for supplying people with everyday consumer goods, MM was able to use its resilience as an opportunity and maintain the supply chain. In 2022, the operations of our mills remained largely unaffected by the pandemic. Our plants in China experienced shutdowns in April and May due to lockdowns. In December, only very limited operations were possible, as many employees were infected with COVID-19 at that time. The objective of the pandemic management concept is to ensure the safety of staff at all times and to maintain operations. Control measures are cascaded at both the plant and divisional levels. A steering committee set up at Group level monitors ongoing developments and makes decisions on comprehensive guidelines and actions as well as regulations for the MM Group headquarter. Hygiene management is assigned to the individual subsidiaries, with minimum standards in place.

For the reporting period 2022, the exact figures of COVID-19 cases and deaths were not recorded.

MM Sustainability Management

CONCEPTS AND GOVERNANCE OF SUSTAINABILITY

Sustainable development is firmly anchored in our corporate strategy and, alongside quality, innovation and technology, is part of our principles of success at MM. In the MM Group's sustainability management, we are guided by established concepts and combine these with our specific requirements in order to define, measure and continuously improve our performance, taking into account environmental, social and economic aspects. The focus is on a science-based approach that relates to both corporate and product sustainability. In the reporting period 2022, the validity of our Group-wide evidence-based targets to reduce the CO₂-footprint was officially confirmed by the Science Based Targets Initiative (SBTi). In addition, in 2022 the "MM Message House" was developed in line with the internal stakeholder dialog. On this common basis, we strive for a unifying corporate culture with overarching values, a common corporate purpose as well as a clearly defined strategy in accordance with the guiding principle "Leading in Consumer Packaging". Our core values are included in our Code of Conduct and reflect the MM Group's high standards for sustainable and responsible action. In the financial year 2022, the Code of Conduct (<https://www.mm.group/en/about-us/responsibility/code-of-conduct/>) was revised in consultation with the Management Board and supplemented with additional sustainability topics. In order to improve the perception of our social and environmental responsibility along our supply chain, we have implemented the tool "Prewave", which enables us to contact suppliers directly in the event of violations and to take targeted measures. As a globally operating Company, we see it as our responsibility to keep the environmental impact of our own business activities as low as possible, above and beyond the legal minimum standards. Our objective is to add positive value for the environment and society through sustainable products, transparency and responsible management.

GRI 2-24

GRI 2-23

At the corporate level, we understand sustainability as a transformation process. In the sense of transformation research, we as the MM Group align our sustainability efforts along the criteria of "true business sustainability" according to Dyllick & Muff (2016)¹, with the aim of actively contributing as a company to solving social and environmental challenges and thereby helping to shape a systemic transformation. On the one hand, this means that sustainability is always taken into account when it comes to internal processes, and, on the other hand, we take into consideration the interests of external stakeholders when developing solutions for challenges related to sustainability in connection with the UN Sustainable Development Goals (SDGs). As a member of the UN Global Compact, we are not only committed to these globally valid goals, but also see them as guidelines for our sustainability strategy. At the center of this strategy are the categories "Planet", "People" and "Prosperity", to which we have assigned material topics and specific goals derived from them.

MM pursues science-based climate targets to mitigate climate change. In line with the targets submitted to the Science Based Targets initiative, measures have also been taken to implement them. To this end, we not only determine the Group's direct and indirect greenhouse gas emissions, but also support our customers' sustainability initiatives through individual life cycle assessments. Life cycle assessments at product level are carried out in accordance with the international standards of the GHG Protocol and ISO 14040 ff. We also rely on recognized guidelines for the reporting of non-financial key figures with the standards of the Global Reporting Initiative (GRI). Furthermore, the integration of climate-related risks and opportunities into the existing reporting structure is based on the framework of TCFD (Task Force on Climate-Related Financial Disclosures). In this way, we meet the demand for increased transparency and international comparability within the framework of MM sustainability management and, as a result, the increasing information needs of our stakeholders to be able to assess the Company in more detail on the basis of ESG criteria (Environment, Social, Governance).

¹ Dyllick T, Muff K. Clarifying the Meaning of Sustainable Business: Introducing a Typology From Business-as-Usual to True Business Sustainability. *Organization & Environment*. 2016;29(2): 156-174

As the MM Group, we are committed to responsible and sustainable sourcing of forest-based raw materials, as safeguarding biodiversity and access to sustainable, fiber-based raw materials is one of our key concerns. The publication of the “MM Policy for Forests and Natural Ecosystems” in 2022 has enabled us to bring this concern further to the fore, so that we can further reduce our impact on natural ecosystems. At product level, these concerns are expressed in particular in the certification of our MM Board & Paper mills according to PEFC and FSC® standards.

This is in line with our corporate purpose “Securing a bright future for packaging, people and planet”, as we produce packaging from renewable, recyclable raw materials and develop innovative plastic substitution solutions, thereby fulfilling our responsibility towards society and the planet.

GRI 2-9 **Governance structure of sustainability**

GRI 2-13 In the financial year 2021, an independent department, “Group Sustainability”, was established at Group-level, which

GRI 2-14 reports directly to the Management Board. Thereby, sustainability as well as impact management is implemented and operated throughout the group on behalf of and in the spirit of the Management Board. In the reporting period 2022, “Group Sustainability” was expanded through additional team members and a cross-departmental restructuring. Through the integration of “Group Product Safety” and “Group Quality Management”, the department operates as “Group Sustainability and Safety” department, which reflects the complexity of the areas of responsibility. The respective local management performs the management tasks and each employee is required to contribute to the sustainable development of the MM Group. Sustainability management therefore does not take place in isolation, but as an integral part of the organization and its processes. In order to further emphasize the topic of sustainability and our associated goals, additional management indicators were developed in 2022, which will be taken into account for bonus payments as of 2023. The ultimate

GRI 2-17 responsibility for non-financial matters lies with the Management Board, especially when it comes to the EU Taxonomy.

GRI 2-12 The Supervisory Board is continuously informed about innovations in the area of sustainable development and is regularly involved in the monitoring of impact management (economic, environmental, social). This applies in particular to strategies, major investment projects, but also to issues concerning the operational business. The Supervisory Board fulfills its statutory auditing obligation and the disclosure of non-financial key performance indicators is audited and validated by third parties. PwC Wirtschaftsprüfung GmbH, Vienna, has performed an independent limited assurance review of the Consolidated Non-financial Report. The corresponding report can be found on page 168.

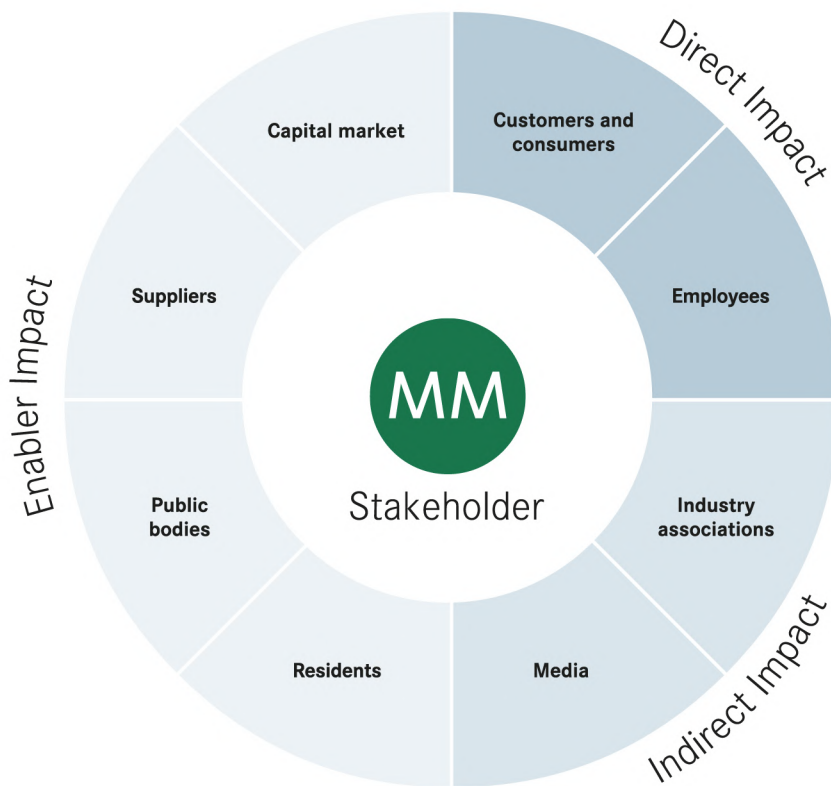
STAKEHOLDER GROUPS AND DIALOG

GRI 2-29

The MM Group knows its stakeholder groups and assumes long-term responsibility towards them. In the course of an analysis along the value chain, stakeholder groups were identified in the previous financial years together with internal experts from various corporate divisions. These stakeholder groups continue to exist:

- Customers and consumers
- Employees
- Capital market (e.g. shareholders, analysts)
- Suppliers
- Public bodies (e.g. politics, authorities, testing bodies, science, NGOs)
- Residents
- Industry associations
- Media

In the financial year 2021, a further classification of stakeholder groups was carried out in order to understand their influence on the MM Group even better in terms of a comprehensive sustainability strategy. Customers and consumers as well as employees are stakeholders with a direct influence, as the involvement of these stakeholder groups has a direct and significant impact on the sustainability goals and success of the MM Group. Industry associations and the media are stakeholders with an indirect influence. They are important multipliers in the public relations work for the sustainable development of the MM Group. Stakeholder groups representing the capital market, suppliers, local residents and public authorities support the MM Group's ability to achieve sustainability faster and more smoothly. GRI 2-25



Stakeholder dialog

GRI 2-10 We attach great importance to an open, constructive and regular exchange with our stakeholder groups, because it gives us the opportunity to find out about their concerns and expectations, to identify areas in which there is room for improvement as well as opportunities to take action accordingly. Independence ensures that stakeholder concerns can also be taken into account on a regular basis, without giving rise to conflicts of interest. Following the implementation of a systematic stakeholder dialog involving internal and external stakeholders in 2021, the MM Group focused on the internal dialog with the “MM Message House” in the reporting period 2022. Within this framework, an internal guideline for a common, sustainable future as well as our claim “Leading in Consumer Packaging” was defined. In addition, stakeholder interactions take place in various ways; in this connection, emphasize both digital exchange and direct personal contact in one-on-one meetings or forums.

MATERIAL TOPICS OF SUSTAINABILITY

GRI 3-1

In order to determine the material issues, relevant aspects from the areas of environment, social and governance (ESG) were first identified and subjected to an internal and external classification. This was done according to the principle of double materiality. Both potential risks for the Company (“outside-in”) and the influence of the MM Group on the sustainability issues mentioned (“inside-out”) were assessed. The analysis of relevant aspects was based on industry trends, legislative developments (e.g. EU Green Deal) and physical risks. In addition, industry associations as well as internal and external experts were involved in the process of identifying relevant topics.

To ensure the support of global sustainability initiatives such as the “Agenda 2030”, the identified priorities were subjected to further analysis. This ensures the conformity of our central priorities with the Sustainable Development Goals (SDGs).

Already in the business year 2021, the evaluation of the identified material topics showed an increased importance of environmental concerns compared to the previous business years. Innovations to promote the circular economy and increased integration of the supply chain now shows the highest materiality. Climate change mitigation, resource efficiency, biodiversity conservation and responsible water management show high relevance as well. The inclusion of sustainability agendas in investments is of great importance for the business activities of the MM Group, not least due to legal requirements such as the EU Taxonomy. The material topics already surveyed in 2021 are still valid after consultation with the Management Board.

GRI 3-2

As an internationally active group, MM aims to promote social sustainability within and outside the Company. Public relations work on sustainability issues is of great importance in all areas of non-financial aspects. Complying with new legal frameworks, acting in a compliant manner and always ensuring data and product security are equally relevant, especially from a risk perspective, as these topics are of great importance for the Company.

The material topics presented serve as the basis for the MM Group’s sustainability strategy. For further elaboration, these have been categorized, grouped by non-financial topics in terms of double materiality and summarized in the table below. The materiality analysis includes the assessment of the significance of an impact in relation to the other impacts within the scope of MM’s business activities. For example, the impacts of environmental and social concerns (e.g. responsible sourcing and supply chain, innovations to promote circular economy and product safety) were rated “high” in the materiality analysis, as were environmental concerns (climate change mitigation and adaptation, responsible water management). By comparison, the impact of employee issues (e.g. inclusive and attractive working conditions, human rights) was rated as less significant for MM’s business operations. Furthermore, in this reporting period, the table of material topics was expanded to include the category “assessment of impacts”.

GRI 3-3

Material topic	Impact by and on MM (double materiality)
Climate change mitigation and adaptation	Industrial cartonboard and paper production is associated with significant energy consumption and emissions. MM accepts its responsibilities by reducing specific energy consumption and related emissions as well as optimizing energy production and the choice of energy sources. Climate change entails physical as well as transitory risks that can have a negative impact on production processes (e.g. disruption of production processes due to flooding).
Resource efficiency and biodiversity conservation	MM assumes responsibility for the responsible use of resources by minimizing the specific use of raw materials and improving recyclability. When it comes to waste reduction, the priorities are clear from both an ecological and an economic point of view: avoiding waste before recycling and disposal. This also promotes the preservation of biodiversity. The availability of natural wood-based raw materials is a prerequisite for the company's activities. Biodiversity loss can negatively affect the availability of wood as a resource in the medium and long term.
Responsible water management	Water is an essential resource in the paper and board production process. MM takes this into account by controlling water consumption and use. The potential risk of water pollution and scarcity can thus be prevented. The availability of water is essential for cartonboard production. Droughts and associated water shortage can thus result in an impairment of production processes.
Employee health and safety	Measures to ensure safety at work and health protection contribute to maintaining the health and a sustainable performance of our employees.
Attractive and inclusive working conditions	An attractive working environment that promotes identification and satisfaction among employees has always been important to us. All employees of the MM Group are encouraged to fulfil their professional tasks in the best possible way and to develop both their professional and personal skills. Attractive working conditions help to retain qualified employees and prevent a shortage of skilled workers.
Respect for human rights	MM pays attention to ensuring socially acceptable working conditions in accordance with the core labor standards of the International Labour Organisation (ILO) and the principles of the UN Global Compact. We also pay attention to the protection of human rights in the cooperation with our partners.
Changed legal framework, compliance, and data security	MM pursues consistent compliance with laws, guidelines and requirements. MM systematically prevents corruption, bribery and anti-competitive behavior. Data protection and information security are ensured through guidelines and training.
Innovations to promote the circular economy and product safety	Product and process innovations contribute to greater sustainability for both the company and society - in economic, ecological and social terms. We place our focus on promoting circular economy approaches and plastic substitution as well as ensuring product safety.
Responsible sourcing & supply chain, sustainable investments and public affairs	Cooperation with partners along the entire value chain and a public commitment to the sustainable development of the MM Group are crucial for the company's success in the long term. For this purpose, an evaluation of the supply chain and investment projects based on non-financial criteria are particularly useful.

Material topic	Non-financial matters	
<p>Progressing climate change and the associated impact on resources, the EU Emissions Trading Scheme (ETS) as well as new legislation around the European Green Deal are a driver for research and innovation at MM. Climate-related extreme events, such as water shortages or floods, lead to financial risks for MM due to potential stoppages of production.</p> <p>The biggest potential economic burden for MM is a bottleneck in the supply chain for certified raw materials. If no certified roundwood can be procured, production capacity may be reduced or interrupted. Calamity-related forest situations (e.g. forest fires, windthrow, bark beetle infestation) which are becoming more frequent as climate change progresses and precipitation patterns change lead to a reduction in timber volumes in the purchasing areas in Europe, which represent the main procurement area. Taking into account different climate scenarios, increased and a higher number and more serious natural disasters can be expected for the procurement areas, which may result in potential economic loss for MM.</p> <p>As the progress of climate change results in a change of precipitation patterns, there will be more droughts and water shortages in the future. As MM Board & Paper's production facilities are highly dependent on the availability of water in the catchment area, this represents a significant risk that may lead to a reduction in production capacity. Depending on the severity and frequency of the event, this may pose a financial risk to MM.</p>	<p>Environmental matters</p> <p>Environmental matters</p> <p>Environmental matters</p>	<p>GRI 302 GRI 305</p> <p>GRI 301 GRI 306</p> <p>GRI 303</p>
<p>Various impairments lead to an increased susceptibility to errors and pose a potential risk to health and safety in the workplace. Due to inherent safety risks in manufacturing companies, occupational safety is of great importance to MM. Accidents at the workplace also represent a financial risk to a varying economic extent due to possible downtime. Potential safety risks arise from work-related stresses, such as working in shifts or from fire and hot work. Various impairments lead to an increased susceptibility to errors and pose a potential risk to health and safety at the workplace.</p> <p>Various organizational and process changes and the resulting new demands that the entire organization is faced with a potential risk for MM. The sustainable retention of know-how and talent is essential in this context. The attractiveness as an employer brand also plays an important role here, as a potential shortage of skilled workers must be prevented in order to ensure the long-term success of MM.</p> <p>The respect for and observance of human rights as well as the active prevention of human rights violations is a central concern for MM. Particularly in non-European countries, the company may be exposed to human rights risks. However, the extent is estimated to be low in relation to our industry and with regard to the supply chain. Potential violations could cause reputational damage as well as a negative impact on customer relations.</p>	<p>Employee matters</p> <p>Employee matters</p> <p>Employee matters; respect for human rights</p>	<p>GRI 403</p> <p>GRI 2 GRI 404</p> <p>GRI 408 GRI 409</p>
<p>The following potential risks arise from our business activities: possible non-compliance with standards, laws, rules of conduct and, where applicable, voluntary declarations, as well as cases of corruption and anti-competitive behaviour. Compliance risk is kept low through the implementation of a wide range of measures. The risk of corruption is considered very low in European countries. Due to the low fungibility of the products produced, we do not expect to be at the center of any fraudulent activities. Comprehensive IT- and OT-security projects are in place to counteract increased cyber security risks related to data protection and information security.</p>	<p>Social matters; fight against corruption and bribery</p>	<p>GRI 205 GRI 206</p>
<p>At consumer level, customers are increasingly aware of the impact of their purchasing decisions and are increasingly including sustainability indicators in their purchasing decisions. Our main product consists mainly of renewable raw materials with a high recycling rate. This reduces the use of primary raw materials and thus contributes to sustainability.</p> <p>At product level, responsible sourcing is achieved through certification according to PEFC and FSC® standards, enabling us to further reduce negative impacts on ecosystems. In addition to our own performance, we are dependent on the performance of our partners along the supply chains, thus non-compliance with legal requirements represents a risk. Early identification of market and future trends serves as the basis for sustainable investments. This minimizes the risk of bad investments.</p>	<p>Environmental and social matters</p> <p>Environmental and social matters</p>	<p>GRI 416</p> <p>GRI 2</p>

MM SUSTAINABILITY STRATEGY

Based on the results of the materiality analysis, an adapted sustainability strategy was defined for the entire Group as early as 2021. Along the lines of the United Nations' "Agenda 2030", the material topics and the respective objectives of the MM Sustainability Strategy were assigned to the categories "Planet", "People" and "Prosperity".







The category "Planet" includes all aspects of environmental sustainability and focuses on climate protection initiatives, the use of renewable raw materials and the responsible use of water resources. In this way, we want to contribute to the preservation of the natural habitat for our own and future generations. In connection with the category of "People", we as the MM Group fulfil our social responsibility towards all people in the context of our business activities, but especially towards our employees. We place a particular focus on the safety of all workers, attractive working conditions and development opportunities as well as the protection of human rights. In the "Prosperity" category, we pursue the goal of implementing economic and technical progress in harmony with society and nature. We consider compliance with applicable laws and behavior in line with compliance requirements to be just as much our duty as the promotion of the circular economy by means of innovations and the integration of the entire value chain with the aim of achieving systemic change towards sustainable development



MM Sustainability Program

Based on the strategic categories “Planet”, “People” and “Prosperity”, the MM Group has developed a sustainability program that takes into account the United Nations’ Sustainable Development Goals (SDGs) and has defined specific targets for the MM Group. The following tables show the central points of the sustainability program, also listing specific objectives for the MM Group.





Planet

Material topics	Sustainability program	MM Objectives	SDGs
Climate change mitigation and adaptation	Decarbonization	Reduce absolute greenhouse gas emissions for Scope 1, 2 and 3 by 50.4 % by 2031 (base year 2019) ¹⁾	 (13.1)
		Increase the annual share of electricity from renewable energy sources from 15.61 % in 2019 to 40 % by 2031 and to 100 % by 2045 ¹⁾ Reduce Scope 3 greenhouse gas emissions by 58.1 % per unit of value added by 2031 (base year 2019) ¹⁾	 (7.2; 7.3)
Resource efficiency and biodiversity conservation	Resources	99 % recovery of process residues (recycling/reuse/incineration with energy recovery) by 2030	 (12.2; 12.4; 12.5; 12.6)
		Reduce the intensity of waste landfilling by 75 % by 2030 (base year 2019) 100 % of wood-based raw materials come from responsible sources by 2030 40 % less process waste per saleable tonne by 2030 (base year 2019) MM has a comprehensive understanding of its impacts and risks in relation to biodiversity by 2022	 (15.1; 15.2; 15.5; 15.9)
Responsible water management	Water ²⁾	Efficiency increase in water consumption by 30 % by 2030 (base year 2019) Efficiency increase in the use of process water (total water consumption excluding cooling water) by 30 % per saleable tonne by 2030 (base year 2019) All production sites of the MM Board & Paper division will be certified by third parties until 2030. MM has a comprehensive insight into the impacts and risks related to water use until 2022	 (6.3; 6.4; 6.5)  (12.2)

¹⁾ Climate targets were defined according to the Science Based Targets Initiative and submitted accordingly in 2021




²⁾ Water targets apply exclusively to the MM Board & Paper division

People

Material topics	Sustainability program	MM Objectives	SDGs
Employee safety and health	Health and Safety	Promote accident prevention: mandatory reporting of near misses, unsafe conditions and actions for all MM sites. Based on the 2022 result of 6,243 reports, a minimum of 6,886 reports are expected as a target in 2023 Reduce the accident rate LTAR(200) at all sites, based on a reduction of the Group result from 2.18 to a threshold of LTAR 1.96 in 2023	 (8.8)
Attractive and inclusive working conditions	Working Environment	MM Group as an attractive employer and workplace Promote professional and personal qualification MM as “Employer of Choice”	 (4.7)  (8.5)
Respect for human rights	Human Rights	Ensure compliance with human rights within the MM Group Assessment of the human rights performance of 100 % of the MM Group’s “key suppliers” by 2023 ¹⁾	 (8.5)

¹⁾ The “key suppliers” are identified based on the scope/type of business activity and influence (turnover)

Prosperity

Material topics	Sustainability program	MM Objectives	SDGs
Legal framework, compliance, data protection and information security	Responsible Management	Demand and promote behavior in line with compliance requirements within and outside the MM Group Continue to promote internal training on competition law, data protection and information security	 (8.7)
Innovations to promote the circular economy and product safety	Innovation and Quality	Promote product and process innovations to optimize product end-of-life Improve the use of natural raw materials and further substitution of plastics across the MM product range	 (9.4)
Responsible Sourcing & Supply Chain, Sustainable investment and public relations	Value Chain	Interaction with 90 % of the “key suppliers” based on sustainability objectives of the MM Group until 2025 ¹⁾ Assessment of the sustainability performance of 90 % of the MM Group’s “key suppliers” by 2023 ¹⁾ Promote cooperation for circular innovations along the entire value chain	 (12.2)

¹⁾ The “key suppliers” are identified based on the scope/type of business activity and influence (turnover)

Planet

Focus on MM Sustainability Topics



99%

recovery of process residues by 2030

50.4%

reduction of absolute GHG emissions by 2031

30%

efficiency increase in water consumption by 2030



Through ambitious goals and corresponding actions, we as the MM Group promote environmental sustainability and contribute to the preservation of the natural habitat for us and future generations. Renewable raw materials, responsible use of resources and decarbonization activities enjoy the highest priority.



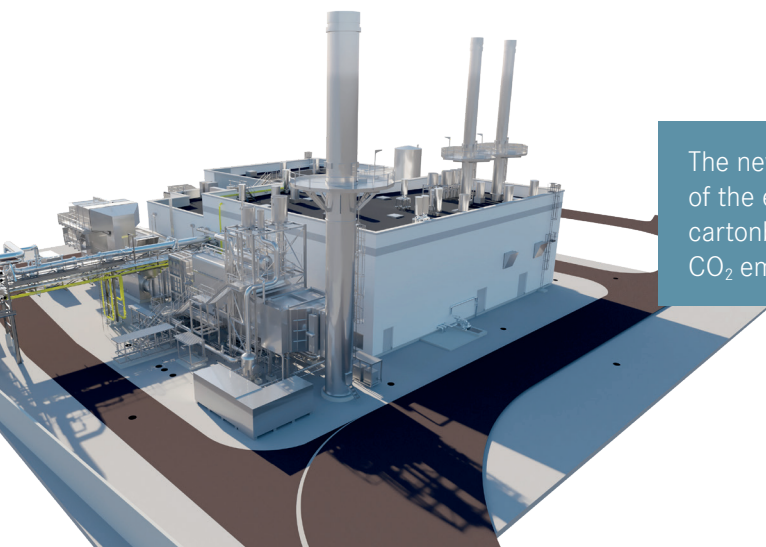
Decarbonization



Strategy for the decarbonization of MM Neuss

As the MM Group, we have a high standard for the optimal use of resources and efficient energy production. With this objective in mind, our German cartonboard mill MM Neuss developed a decarbonization strategy, as the current electrical and thermal efficiencies were no longer state of the art. In the future, it will be possible to substitute the primary source of natural gas with the energy resource “green hydrogen” in the mid-term. Thus, the new energy plant could initially be operated with up to 10 % green hydrogen, with the option to increase this share up to 100 % by

minor adjustments of the combustion chambers in the gas turbine. The commissioning of the state-of-the-art gas turbine with a downstream waste heat boiler and a steam turbine is scheduled for the end of 2023. In the same time, the site’s water treatment plant and power supply will also be completely renewed. In addition, the entire system consisting of production, power plant and power supply is networked in real time according to a new industry standard due to the high degree of automation. This enables MM Neuss to react to changes in production and energy markets with maximum efficiency.



The new power plant and the replacement of the energy generation at our MM Neuss cartonboard mill results in a reduction of CO₂ emissions by 22,000 tonnes per year.

Raw Materials

Initiative to reduce the use of raw materials in MM Packaging plants: Next Level Waste

The MM Group acts in the spirit of the circular economy and continues to advance the issue of waste reduction in the plants of packaging sites. With the “Next Level Waste” initiative, a team of experts has set itself the goal of defining common standards in order to save raw materials. All corporate levels are involved in the sustainable implementation of the identified success factors, such as ensuring continuity, distributing the workload, conducting training and transferring know-how. With “Next Level Waste”, MM Packaging is well positioned to meet future challenges in terms of competitiveness and sustainability. In particular, it is essential to strengthen

the corporate culture for the economical use of raw materials in the entire organization.



In order to focus on the long-term reduction of waste at MM Packaging, knowledge packages with best practices and to-dos are sent to our plants at regularly scheduled intervals.

Water



Every cubic meter of wastewater treated contributes directly to saving CO₂e emissions caused by the combustion of fossil natural gas as well as to reducing MM Gernsbach's overall natural gas consumption.

Extending the MM Gernsbach wastewater treatment plant

Our cartonboard mill MM Gernsbach, Germany, has been investing for years in its plant in order to continuously improve its degradation performance and discharge values. Following previous modernizations, the anaerobic stage is now being expanded and can be put into operation in 2023. The process of fermentation of organic substances by bacteria in the absence of air leads to the production of methane, i.e., valuable biogas. After several treatment stages, the biogas can be fed into the company's own power plant and the use of fossil natural gas can be reduced in the future. The aerobic post-treatment of the wastewater with air in the aeration tank is retained, but with increased efficiency due to the expansion of the anaerobic stage. This means further energy savings for our MM Gernsbach site and contributes to a reduction in energy costs. A nice side effect of the expanded anaerobic wastewater treatment is the reduction of disposal costs for biological sludge, since practically no excess sludge is produced during the process.

1 DECARBONIZATION

The framework of our energy management and decarbonization includes the Paris Climate Agreement and the “European Green Deal” with the goal of climate neutrality for the EU by 2050. All greenhouse gas emissions should preferably be avoided altogether or reduced. Natural sinks (including forests) must be preserved and expanded and technologies to remove greenhouse gases should be implemented cost-effectively. Significant environmental impacts resulting from the MM Group’s business activities are mainly due to the consumption of high amounts of energy for cartonboard and paper production and the emissions associated therewith. In comparison, the energy demand of the Packaging division is significantly lower.

GRI 2-4 Our MM Board & Paper mills mainly use natural gas as a primary source of energy. The mills have their own power plants in which steam for cartonboard production is generated from natural gas as needed. Electricity is generated from high pressure steam via a turbine. Most of the energy used is generated from biomass and, in addition, electricity is purchased from energy supply companies. Other fossil fuels used in the individual sites are hard coal, heating oil, diesel and liquefied petroleum gas. Other fossil energy sources in the individual sites include heating oil, diesel and liquid gas. MM Board & Paper’s production is increasingly fueled by energy from renewable sources such as biomass, biogas and hydropower. Our sites MM Kwidzyn and MM Kotkamills use black liquor, which is a by-product of cartonboard and paper production that is rich in energy, as another energy source for the generation of electricity and process heat.

1.1 Impacts, risks and opportunities

Exhaust air emissions are generated during cartonboard and paper production, in particular in the course of energy generation through the combustion of natural gas and hard coal (MM Kwidzyn). Emissions in the form of CO₂, NO_x and CO are continuously monitored and all legal requirements are complied with. In contrast, the direct exhaust air from the cartonboard and paper machines consists mainly of water vapor. MM Board & Paper continuously implements new measures to further reduce exhaust air emissions in accordance with the state of the art. In the reporting period 2022, the acquisition of Essentra Packaging and Eson Pac as well as the sale of the Russian sites in St. Petersburg and Pskov took place in the division MM Packaging. Despite the newly acquired plants, energy consumption at MM Packaging is much lower than at MM Board & Paper and accounts for less than 5 % of Group-wide energy consumption. Nevertheless, programs to increase energy efficiency are also underway in the Packaging division, especially with view to machinery, heating and lighting. Waste heat from machinery is used to preheat premises in some plants, for example.

The use of energy is of economic importance for both divisions in the MM Group with regard to the purchase price, the basic availability and purchase opportunities. In the financial year 2022, gas prices increased sharply due to the energy crisis resulting from the war in Ukraine. Since gas as an energy source is of economic importance, this represents a risk for the MM Group, which has implemented a diversification of energy sources. The effects of climate change must also be taken into account as physical and transitory risks for the business activities of the MM Group. Physical risks (e.g. floods, forest fires, storm damage, drought) can lead to direct production losses or delivery bottlenecks. As climate change progresses, precipitation patterns will change, extreme weather events will increase and natural resources such as wood and water will come under increasing pressure as a result. As the MM Group, and in particular the division MM Board & Paper, is highly dependent on these resources, it is essential to identify and understand the future potential risks (see page 100).

Transitory risks (e.g. emission certificates, changing market requirements and consumer behavior) are to be regarded primarily as a compliance issue. Although they do not result in short-term production losses, can result to declining sales figures and increased penalties, taxes (CO₂ tax) and fees in the event of violations. The reduction of greenhouse gases

offers opportunities in connection with cost savings, the reduction of environmental damage and additional sales opportunities.

With regard to emissions, there is also a regulatory risk concerning the availability of emission certificates. The EU Emissions Trading Scheme (EU ETS) is the central European climate protection instrument for reducing greenhouse gas emissions in the EU and a few non-EU countries, including Norway. It covers the energy industry as well as selected energy-intensive industrial sectors, such as the paper and cartonboard industry, and thus also the six MM cartonboard and paper mills within the EU as well as the FollaCell fiber mill in Norway. For the financial years 2021 to and including 2025, a certain quantity of CO₂ certificates will be allocated free of charge. The respective quantity will be based on technical criteria and criteria defined by EU authorities.

1.2 Management concepts and due diligence processes

GRI 3-3

The MM Group attaches great importance to a responsible management of energy consumption and related emissions. In order to secure the environmental standards achieved so far, to meet new requirements and to check the effectiveness of the environmental management system, internal and external audits (especially in connection with certifications/re-certifications) as well as an evaluation in the course of management reviews are carried out. Energy management aims at sustainably reducing the energy consumption of our plants, increasing efficiency and continuing to increase the share of energy coming from renewable sources. In this context, an energy audit for our six cartonboard and paper mills was started in 2022 and will be completed in 2023. This includes a comprehensive energy management survey, which is conducted due to the rising energy costs and the goal of improving performance as well as the focus on sustainability. Furthermore, identifying optimization potential requires an objective view of our mills and technologies.

In the areas of energy and environmental management, there are certifications according to ISO 50001, EMAS and ISO 14001. Although the provisions of the ISO 50001 certification are increasingly applied to the mills of the more energy intensive MM Board & Paper division, we also try to ensure a comprehensive energy management for our sites in the Packaging division. Currently, five production sites of MM Board & Paper, including the FollaCell fiber mill, and eight packaging sites are certified according to this standard.

The Frohnleiten cartonboard mill has been voluntarily participating in the EC Eco-Audit Regulation since 1996. The “Eco-Management and Audit Scheme” (EMAS) is a community system for environmental management and environmental auditing. The fact that the MM Group participates in this scheme supports its information policy, presenting the corporate culture characterized by responsible action. Together with a certification according to ISO 14001, EMAS forms the basis for ensuring that an integrated environmental management system is in place at MM. Today, the Frohnleiten, Kotkamills and Kwidzyn sites as well as the FollaCell fiber mill are certified according to ISO 14001, Frohnleiten is additionally certified according to EMAS. Those cartonboard and paper mills that are not directly certified have internal environmental protection systems for continuous improvement and use the synergies of the certified sites. A total of 50 production sites are certified according to ISO 14001 and/or EMAS.

To further optimize energy management and the associated greenhouse gas emissions, the MM Group is committed to implementing science-based climate targets. The guidelines of the Science Based Targets Initiative serve as a basis for our climate strategy, based on which we also developed the MM Group’s 1.5°C climate targets. In the business year 2021, the MM Group calculated reduction targets related to greenhouse gases until 2050 and submitted them accordingly to the Science Based Targets Initiative. Our targets were reviewed by Science Based Targets and confirmed in the 2nd quarter of 2022. Due to the acquisitions of Essentra Packaging and Eson Pac in this reporting period, the targets will be recalculated in 2023 in order to adapt our Science Based Targets to the new framework conditions.

The positive development of the MM Group's decarbonization strategy was confirmed in 2022 with the achievement of an A-rating for the "Climate Change" category at CDP.

1.3 Measures and development

GRI 305-1 The definition of targets and measures includes the determination of direct and indirect emissions (Scope 1, 2 and 3)
GRI 305-2 according to the GHG Protocol. This means that we take into account those emissions that are caused by the use of
GRI 305-3 energy sources in production (Scope 1) and the purchase of electricity, steam and heating and cooling energy (Scope 2). All other emissions caused by the Company's activities but not under its control are also determined for purchased goods and services, fuel and energy-related activities, waste and transport by employees (Scope 3). In the business year 2022, a working group consisting of representatives from CapEx Management, Energy Management and Sustainability Management was established to develop solutions and strategies together with the energy managers of the mills in order to achieve the defined climate targets. Our MM Neuss cartonboard mill will save CO₂e emissions in the future by implementing a decarbonization strategy. This includes the modernization of the plant as well as the medium-term substitution of the energy source natural gas with hydrogen. With the installation of a solar thermal system at our MM Graphia Izmir plant, our largest packaging plant in Türkiye has achieved a certain exemplary function: the production of renewable process heat from solar energy reduces dependence on conventional energy sources and CO₂ emissions. In the upcoming reporting period 2023, the focus will be placed on increasing supply chain engagement to ensure greater transparency and sustainability as well as legal compliance.

Objectives

- Reduce absolute greenhouse gas emissions for Scope 1, 2 and 3 by 50.4 % by 2031 (base year 2019).
- Increase the annual share of electricity from renewable energy sources to 40 % by 2031 and to 100 % by 2045 (base year 2019)
- Reduce Scope 3 greenhouse gas emissions by 58.1 % per unit of value added by 2031 (base year 2019).

This supports the implementation of the following Sustainable Development Goals (SDGs): SDG 13.1, 7.2 and 7.3.

	MM Board & Paper	MM Packaging ¹⁾	
ISO-14001- or EMAS-certified production sites	5 out of 7	45 out of 65	GRI 302-1
ISO-50001-certified production sites	5 out of 7	8 out of 65	GRI 302-3
Energy consumption - total	9.66 TWh	0.45 TWh	GRI 305-1
Share of renewable sources - total	44 %	28 %	GRI 305-2
Specific energy consumption ²⁾	4.6 MWh/t	0.5 MWh/t	GRI 305-3
Fuel consumption	8.66 TWh	0.15 TWh	GRI 305-4
Share of renewable sources (mainly black liquor, biomass and biogas)	48 %	0.17 %	
Electricity consumption	1 TWh	0.29 TWh	
Share of renewable sources	13 %	43 %	
Purchased steam or heating and cooling energy	0.01 TWh	0.01 TWh	
Share of renewable sources	0 %	0 %	
Direct CO ₂ emissions (Scope 1) ³⁾	1.06 million t CO ₂ e	0.02 million t CO ₂ e	
Specific direct CO emissions ²⁾	0.40 t CO ₂ e/t	0.03 t CO ₂ e/t	
Indirect CO ₂ emissions (Scope 2, location-based) ⁴⁾	0.51 million t CO ₂ e	0.12 million t CO ₂ e	
Indirect CO ₂ emissions (Scope 2, market-based) ⁴⁾	0.71 million t CO ₂ e	0.10 million t CO ₂ e	
Indirect CO ₂ emissions (Scope 3) ^{1) 5)}	1.80 million t CO ₂ e	0.69 million t CO ₂ e	

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ on the basis of net production or processed tonnage

³⁾ emission factors used according to GHG Protocol

⁴⁾ emission factors used according to the life cycle assessment databases GaBi and the respective emission factors of the electricity suppliers.

⁵⁾ emission factors used according to the life cycle assessment database GaBi and Ecolinvent

2 RAW MATERIALS

Both divisions of the MM Group predominantly use fibers made of wood or their recyclates and thus mainly renewable raw materials. Non-renewable raw materials play a subordinate role. This is also reflected in the quantities consumed, which are listed on page 123. While MM Packaging uses virgin and recycled fibers in a ratio of approximately 60 to 40 for printing materials (cartonboard and paper), the use of virgin and recycled fibers is balanced at MM Board & Paper. In addition to fibers, chemicals (mainly inorganic pigments, binders, starch and sizing agents) and packaging materials are essential materials in the production and marketing of cartonboard and paper. MM Packaging's products focus on cartonboard, papers, printing inks, varnishes, glues and finishing materials, such as films, as well as packaging materials as the main materials used. Efficient use of resources, waste avoidance in production as well as a positive contribution to the long-term preservation of natural areas and biodiversity are our priority. In this context, we attach particular importance to the independent monitoring of raw material procurement and the demonstrable conformity of the Company's operations with international environmental standards.

2.1 Impacts, risks and opportunities

The raw materials used by MM, i.e., virgin and recycled fibers is sufficiently available due to the geographical location of our cartonboard and paper production sites. All mills of the division MM Board & Paper are located in Europe and thus also the forests from which we obtain fresh wood fibers. Within the European Union, forested areas cover over 182 million hectares - this corresponds to around 42 % of the total land area of the EU (source: Eurostat, 2018). In the context of the war in Ukraine, the EU has adopted a package of sanctions against Russia which included an import ban on Russian timber. The measures caused a shortage of timber, which led to rising timber prices.

Around 60 million tonnes of waste paper are collected and recycled in Europe every year (source: Austropapier, 2019). MM Board & Paper processes around 1.1 million tonnes of recycled fibers. Risks arise from the interruptions or slowdowns in the logistics chain and in connection with the collection volume and the price development of recovered paper. Stock preparation, i.e. the separation of individual fibers before they are applied to the cartonboard machine, is possible for recycled fibers in a highly energy efficient way. In addition to the factor of saving energy, the ecological advantage of using recovered paper lies in the conservation and preservation of natural resources. Opportunities for increasing fiber recovery (fiber efficiency) arise in particular thanks to technological progress.

Further risks in the raw materials area arise in particular in connection with the supply chain and the use of chemicals. Chemical leakage during production is a possible scenario for both divisions. This risk is minimized by complying with the relevant legal requirements and implementing specified safety measures, such as equipping chemical storage facilities with drip pans, training the workforce and establishing a detailed incident management system. The purchasing categories essentially correspond to the above-mentioned materials, which are predominantly sourced from European suppliers via a sustainable supply chain. The potential risk of interventions in local communities and ecosystems, e.g. through illegal logging, is counteracted by means of chain-of-custody certification according to FSC® standards as well as PEFC criteria. The “Prewave” risk management tool informs us promptly about environmental violations so that we can contact the respective supplier directly and take appropriate actions. Opportunities lie especially in the increasing awareness of customers and the associated positive effects of fiber-based packaging.

GRI 3-3 2.2 Management concepts and due diligence processes

The objective for the MM Group is to ensure a continuous supply of raw materials, minimization and ensuring environmental protection in material consumption as well as achieving the highest possible recyclability of the products. The different grades are precisely defined by the EN 643 standard. Our procurement organization is geared towards ensuring both optimal origin and quality control as well as the highest possible security of supply. Therefore, we pay particular attention to using only responsible sources of supply for virgin fibers in our cartonboard and paper production. In this way, we ensure that 100 % of the virgin fibers used come from certified and/or controlled sources.

The cartonboard and paper mills are constantly working on projects to optimize fiber use. Technological innovations concerning the machines aim, among other things, at achieving a higher effectiveness in fiber utilization or a reduction in fiber use. Continuous monitoring ensures optimal use during operation. All chemicals used in cartonboard and paper production comply with the 36th recommendation (papers, cartonboard and paperboard for food contact) of the Federal Institute for Risk Assessment (Federal Ministry of Food and Agriculture - Federal Republic of Germany) - BfR XXXVI and meet the requirements of the REACH regulation. Our chemical management has the objective of minimizing harmful effects on humans and the environment caused by the handling and storage of chemicals.

MM Packaging uses only low-migration inks and varnishes for food packaging that comply with all relevant legal requirements. In Europe these include are EU Regulations Nos. 1935/2004 and 2023/2006. The inks and varnishes are also manufactured in accordance with the EuPIA guideline for printing inks. We consider it important to implement these high European standards at all sites of the Group. “Food-contact” inks or mineral oil free inks are used also for other packaging in accordance with the EuPIA recommendation, as they are more environmentally friendly in the recycling cycle and beyond. With regard to the types of glue used, we have high demands when it comes to processability, adhesive seam strength and food safety for food packaging, and we continuously strive to optimize the glues we use. We use only adhesives and glues that comply with EU Regulations Nos. 1935/2004 and 2023/2006 and are manufactured in accordance with the FEICA recommendation.

The MM Group follows a chain of custody standard (CoC) in order to comply with the principle of responsible use of resources and proven sustainable raw materials in its production while preserving natural habitats and biodiversity. This is mainly achieved through management systems and certifications that have been specifically designed for this purpose - these include certifications according to FSC® and PEFC. By certifying all MM cartonboard and paper mills according to FSC® standards (license FSC-C003336, license FSC-C005528, license FSC-C007894) and PEFC criteria (license PEFC/06-33-215, license PEFC/02-32-40, license PEFC/32-31-049), we prove that all virgin fibers used in cartonboard and paper production come from responsibly managed forests and/or controlled sources. In addition, 60 % of our purchased fibers, which are the fundamental resource of our business, are sourced from local suppliers (located in the same country). This is regularly verified by independent third parties. Through the “MM Policy for Forests and Natural Ecosystems” developed in 2022, we define our requirements that contribute to the conservation of biodiversity and the protection of natural ecosystems. As the preservation of biodiversity is of utmost importance to our Company, we conducted a biodiversity analysis in 2022 with the aim of better understanding the impact of our plants on the environment and deriving measures from it. In 2023, we will also analyze our value chain activities.

GRI 204-1

GRI 304-1

GRI 304-2

In terms of circular economy, the MM Group’s waste management focuses on the concept of “avoidance before recycling before disposal”. Waste management is implemented at the sites by the respective waste management officer. Disposal itself is carried out by authorized waste collectors, recyclers and disposers in accordance with the relevant legal requirements depending on the type of waste.

GRI 306-1

GRI 306-2

In terms of volume, the largest share of waste at MM Board & Paper in the recycled fiber-based cartonboard mills is made up of residues from recovered paper processing, the so-called rejects. Sewage sludge and commercial waste similar to household waste are either thermally recycled within the mill or handed over to authorized disposal companies. During pulp preparation, black liquor is produced as an energy-rich by-product that is recycled and used as an energy source to generate electricity and process heat.

Hazardous waste, such as used oil, chemicals, contaminated liquids, waste water contaminated by chemicals, workshop waste and batteries, is handed over to licensed disposal companies, which dispose of the waste in accordance with legal regulations.

Also at MM Packaging, by far the largest share of waste in folding carton production consists of non-hazardous materials that are fed into the recycling loop. The most significant waste category in terms of volume is cartonboard residues from the die-cutting process. They are largely recycled in the MM Group and other companies and processed into new cartonboard. Solvent residues, ink and varnish residues, used oils as well as vapor and dirty water from printing machines are classified as hazardous waste, which only accounts for a small fraction of the total waste volume and is handed over to authorized waste disposal companies in accordance with legal requirements.

2.3 Measures and development

With regard to the use of raw materials, the focus continues to be placed on a comprehensive examination of the topic of plastic reduction and substitution with regard to the market and technology as well as on a close cooperation with customers and experts. With this in mind, our MM Innovaprint packaging site at Bielefeld offers flexible plastic substitution solutions: The finishing of paper rolls of various specifications, e.g. with partial heat-sealing function allows for plastic reduction on existing packaging lines. MM Packaging France S.A.S. has developed a fiber-based alternative with a barrier function to substitute conventional plastic trays for food: “Green Peel” can reduce the amount of plastic per unit by up to 90 %. Besides, it is possible to manually separate the plastic liner (plastic film) from the carton tray for efficient recycling. In addition, increased use of fibers from responsible sources is a high priority for both divisions. The use of synergy effects between the two divisions MM Board & Paper and MM Packaging will continue to be strengthened. In addition, we are

continuously working on optimizing chemical consumption through process adjustments, such as the installation of measuring devices in the bleaching process. A large number of projects was implemented in order to reduce rejects in cartonboard and paper printing materials through process optimizations as well as improvements in fiber. With regard to waste management, our priorities consisted in optimizing separate collection and minimizing hazardous waste (e.g. solvent and ink residues) through avoidance or substitution. In the context of waste avoidance, significant savings of printing inks and varnishes were recorded through an initiative of the MM Graphia packaging plant in the course of process and consumption optimizations. In addition, the “Next Level Waste” initiative illustrates the importance of this topic within the MM Group with the aim of long-term waste reduction at packaging sites.

Objectives

- 99 % recovery of process residues (recycling/reuse/incineration with energy recovery) by 2030
- Reduce the intensity of waste landfilling by 75 % by 2030 (base year 2019)
- 100 % of wood-based raw materials come from responsible sources by 2030
- 40 % less process waste per saleable tonne by 2030 (base year 2019)
- MM has a comprehensive insight into the impacts and risks related to water use until 2022 (fulfilled)

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 8.7.

	MM Board & Paper	MM Packaging ¹⁾	
Renewable raw materials²⁾	2.3 million t	1.0 million t	GRI 301-1
Fiber input/cartonboard and paper input	2.3 million t	1.0 million t	GRI 301-2
Recycled fibers /-cartonboard ³⁾	1.1 million t	0.4 million t	
Virgin fibers /virgin fiber cartonboard ⁴⁾	1.2 million t	0.6 million t	
Share of renewable raw materials	74 %	95 %	
Non-renewable raw materials	0.8 million t	0.05 million t	
Percentage of recycled input materials used	34 %	35 %	
Virgin fiber use from responsible sources			
of which from FSC [®] -certified sources	75 %	22 %	
of which from PEFC-certified sources	22 %	12 %	
of which from controlled sources ⁵⁾	3 %	-	
FSC [®] -certified production sites	7 out of 7	51 out of 65	
PEFC-certified production sites	7 out of 7	31 out of 65	
Regional procurement			GRI 204-1
Proportion of spending on local suppliers for virgin/recycled fibers	60 %		
Waste			GRI 306-3
Non-hazardous waste	0.38 million t	0.24 million t	
Hazardous waste	0.46 thousand t	3.91 thousand t	

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ including packaging materials

³⁾ exclusive rejects

⁴⁾ groundwood pulp equivalent

⁵⁾ including FSC[®]-controlled wood

3 WATER

Water is one of the most important resources of our planet – both for humans and for ecosystems and species. Water should be understood as a local resource, as its availability depends on local conditions. With regard to water as a resource, it is therefore important to take into account the existing sources, the quality of the local water reserves and the different users in the catchment area. Responsible water management is a high priority within the MM Group, as water is an essential resource, especially for the production of cartonboard and paper. In contrast, hardly any water is needed for processing of cartonboard and paper. Therefore, the MM Board & Paper division produces significantly more waste water than the MM Packaging division. For these reasons, the scope of application for the topic “water” refers exclusively to the MM Board & Paper division.

3.1 Impacts, risks and opportunities

Water is used in large quantities during the entire production process in cartonboard and paper manufacturing - from the pulping of recycled paper and the preparation of virgin fibers to its use as a coolant and for the production of steam in energy generation. Water use and water consumption must be clearly distinguished. Some water is only used temporarily in production (e.g. as cooling water), then treated and recycled. The risk of water shortage due to production is therefore low. Only a relatively small proportion of the water used is not recycled, but remains either in the product as residual moisture or evaporates.

In addition to efficient water consumption, the recycled water must meet the highest criteria in terms of water quality. Temperature and quantity must be taken into account when recycling treated water, so that there is no harmful impact on biodiversity. In dealing with the impacts of water recycling, MM complies with minimum legal standards in terms of water quality: The total amount of wastewater discharged is monitored by destination, such as surface water or groundwater. The quality of wastewater is monitored during on-site and off-site treatment. For directly discharged water, only harmless nutrients are allowed and approval from the authorities is required. Monitoring and measurement of pollutant parameters of the wastewater after on-site and off-site treatment is carried out continuously. Among others, the following parameters are monitored in accordance with international standards, e.g. chemical oxygen demand (COD) according to ISO 15705, suspended solids (TSS) according to NS 4733/NS 4760. In this context, water samples are analyzed to compare the pollutant content of the discharged water with that of the recycled water. Since water is needed in large quantities for cartonboard and paper production, regional risks and developments must be taken into account. Not only water scarcity, but also water overflow in connection with flood risks must be taken into account. As most of the mills of the MM Board & Paper division are located directly on waterways, we consider the entire water catchment area in which the respective mill is located. Our board and paper mills are not located in any areas of water stress and therefore no water is taken from such areas.

GRI 3-3 3.2 Management concepts and due diligence processes

In the business year 2021, a process was started at MM with the aim of using water as a resource even more efficiently in the future and further reducing the negative impact on water systems as well as risks associated with water. In addition, a CDP-rating for water management (B-rating) was carried out for the first time. In order to implement this even more comprehensively and responsibly within the MM Group in the future, a strategy process which is based on the standard of the “Alliance for Water Stewardship” as well as the “Water Mandate” of the UN Global Compact was initiated. This consists of four pillars: “Assessment”, “Strategy”, “Act” and “Monitoring”. Within the framework of the strategy, goals were defined that are to be achieved by reducing water use through continuous optimization of production processes and products. Specific water consumption is measured on an ongoing basis and kept very low or reduced further through closed-loop systems and efficiency improvements. The water withdrawal and return of all plants is continuously measured, consolidated and reported monthly in our reporting/controlling tool.

External standards and tools serve as a basis for evaluating water management. In the business year 2022, third-party certification of the resource water was carried out for the first time: in addition to the categories climate change and forest management, the category water management was also submitted to CDP this business year and achieved a good performance with a B-rating.

The MM Group has carried out assessments for the mills of the Board & Paper division to analyze the impact of MM on water systems as well as risks regarding the availability of water. A water catchment analysis was already carried out for the MM Board & Paper mills in 2021 using external programs such as AWaRe, ENCORE and the WWF Risk Assessment Tool. Thereby mill-specific risks were identified, such as the risk of flooding or water scarcity. The assessment process was continued at plant level in 2022. For the mills of the MM Board & Paper division, the “Blue Water Consumption” project was initiated in order to map water-related impacts with a holistic method according to ISO 14046:2014, taking into account direct and indirect aspects. To analyze quantitative and qualitative effects, indicators such as water scarcity, net freshwater consumption and water withdrawals and discharges are taken into account. In the future, we want to be able to make product-specific statements regarding water consumption and thus create further transparency for our stakeholders.

At MM Board & Paper, we follow the concept of using the extracted groundwater or surface water several times, first as cooling water and then in several stages as process water. Excess water is first mechanically cleaned and then treated in a multi-stage biological wastewater treatment system before being discharged again – there is no overuse or pollution. Water used several times in the production process is cleaned and treated in state-of-the-art wastewater treatment plants before leaving the mills. The ongoing collection and evaluation of wastewater values is carried out by specially trained in-house staff as well as regular external examinations. Compliance with the relevant legal requirements is checked by the competent national and regional authorities. Modernizations and expansions of wastewater treatment plants are regularly implemented with a view to the future. Certifications in the area of environmental management can be found on page 119.

3.3 Measures and development

In the business year 2021, water management was further optimized – on the one hand, by defining a strategic process for the comprehensive evaluation of the impacts and risks of water use and, on the other hand, by means of wastewater analyzes. In connection with this strategic approach, we have set quantitative and qualitative targets and subsequently defined measures to achieve them. In this sense, MM demonstrates its commitment to continuous improvement by implementing environmental initiatives. Our MM Gernsbach cartonboard mill, for example, added an anaerobic stage to the wastewater treatment plant in order to substitute natural gas with the biogas that will be produced in the course of the process after some modernizations. Our MM FollaCell fiber mill will also modernize its wastewater treatment proves. This will result in a reduction in the energy consumed and the need for external wastewater sludge treatment, and allow for a substitution of fossil energy with biogas.

Objectives

- Efficiency increase in water consumption by 30 % by 2030 (base year 2019)
- Efficiency increase in the use of process water (total water consumption without cooling water) by 30 % per saleable tonne by 2030 (base year 2019)
- All production sites of the MM Board & Paper division are certified by third parties until 2030
- MM has a comprehensive insight into the impacts and risks related to water use until 2022 (fulfilled)

Note: “Water” targets apply exclusively to the MM Board & Paper division.

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 12.2, 6.3, 6.4 and 6.5.

	MM Board & Paper	MM Packaging ¹⁾	
Water withdrawal	67.85 million m ³	0.73 million m ³	GRI 303-3
Water discharge	63.39 million m ³	0.54 million m ³	GRI 303-4
Water consumption	4.46 million m ³	0.19 million m ³	GRI 303-5

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

People

Focus on MM Sustainability Topics



15,640

employees in
33 countries

6,243

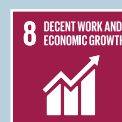
preventive actions taken
to avoid accidents

0

child labor



As the MM Group, we assume social responsibility for all people in the Group and along our value chain. We focus on safety at work, the best possible working conditions and safeguarding human rights.



Working Environment

The MM Group as an attractive employer and workplace

MM strives to continuously strengthen its attractiveness as an employer brand in order to sustainably attract and retain talented employees. In 2022, a special focus was placed on our online presence in



order to convey corporate culture and values and to address our target groups in an even more specific way. To promote and train employees, the new global trainee program “Trainee+” has been implemented since January 2022 and has been in high demand. In addition, a significant increase in staff

training hours was achieved by promoting the training and development program of the “MM Academy”. As an international company, MM supports diversity initiatives to counter prejudice of all kinds and to share the stories and passions of our employees.

The success of our employer branding ambitions is reflected, for example, in the application process at headquarters: the number of applications, conducted job interviews and filled positions increased significantly and we were able to shorten the process. A significant support for the growth of MM. #wegetthingsdone.

Human Rights

Campaign to strengthen mental health in schools

The fundamental right to education is a matter of concern to MM. Therefore, as a producer of paper which is used as a medium for education, we have been supporting education institutions for a long time. With the COVID-19 pandemic, the importance of mental health in schools has become more important than ever before. However, there is often a lack of resources for the necessary psychological support. With this in mind, our MM Kwidzyn cartonboard mill in Poland made an important contribution and provided financial resources

In total, the funds provided to Polish Humanitarian Action (PAH) by MM Kwidzyn in 2021 and 2022 covered the cost of over 1,100 hours of psychotherapy in schools.

for psychotherapy in schools in cooperation with Polish Humanitarian Action (PAH). MM Kwidzyn used its own brand of office paper, POL, whose packaging served as a visual ambassador for the campaign. A study sponsored by MM in Polish primary schools aimed at identifying pupils’ expectations of teaching staff and to raise public awareness of PAH activities. In addition, a professional guide for teachers was developed to allow for early recognition of symptoms of mental health problems in children and adolescents.



Health and Safety

Preventing accidents at MM Kwidzyn

As part of safety management, every near miss is a great opportunity for us to improve safety levels and prevent accidents in the future. At our Kwidzyn cartonboard mill, we want to know about any dangerous situation and encourage everyone to contribute by reporting it. The safety culture already in place is continuously reinforced by caring for each and every employee. In order to continuously improve safety, information about near misses is immediately passed on to the division management and safety department. The safety officer of the respective department sets up a safety committee to deal specifically with the case. Stakeholders and contributors investigate the root causes. Corrective actions are jointly determined, and responsibility and timelines are defined for each action. The implementation of all corrective actions is followed up by the safety officer of the unit and the outcome is reported to the safety department.



Before



After

In MM Kwidzyn, 616 near misses were addressed in the course of this reporting year. In the process, 793 corrective actions were implemented to increase safety in the long term.



4 WORKING ENVIRONMENT

GRI 2-7 Our employees are crucial for the long-term success of the MM Group. Ensuring attractive, inclusive working conditions and development opportunities is therefore of great importance. At the end of 2022, the MM Group employed 15,640 people in 33 countries. This is an increase of 3,148 people compared to 2021, which is mainly due to the acquisitions of Eson Pac and Essentra Packaging. The employees of the Russian plants, which were sold in the financial year 2022, are no longer included. After the closing of the respective transactions, integration was started immediately. Various changes in organization and processes were initiated and have in part already been implemented so that the employees of the acquired companies are quickly integrated and the entire organization meets the new requirements.

4.1 Impacts, risks and opportunities

Ensuring a high level of attractiveness as an employer in terms of professional and personal development is at the heart of our human resources development concept. Employees at all levels can develop their skills in the long term and take on increasingly responsible tasks as their competence grows. The MM Group promotes training and development programs, the development of professional and personal qualifications and offers challenging professional tasks. Promotion opportunities and international assignments within the Group are actively promoted in order to retain know-how and talent in the long term.

We pay great attention to ensuring that people enjoy working at MM and that the Group has a sustainable supply of qualified specialists and managers. The aim is not only to attract and employ competent employees, but also to constantly enhance the attractiveness of the employer brand. The latter is supported by targeted employer branding. Risks from fluctuation and the outflow of know-how are countered through sustainable employee retention. This is achieved, among other things, through interesting areas of work with the opportunity to take on responsibility, attractive development opportunities and cooperation in a climate of mutual appreciation.

GRI 3-3 4.2 Management concepts and due diligence processes

The central function “Group Human Resources & Internal Communication” manages the human capital in the Group with a focus on employee development, training and further education, recruiting and employer branding as well as internal communication. The individual measures are continuously evaluated and adapted to current requirements in terms of content, methods and technologies. MM offers numerous programs that systematically guide employees through their professional life in the MM Group. In all programs, special emphasis is placed on the design with challenging tasks and content as well as making an active contribution to the Company.

“MM Academy”

The “MM Academy” is the central training and further education platform for employees at all levels in the MM Group. The main focus is on imparting specialist knowledge and various foreign languages, as well as on the further development of social and leadership skills. Our “Leadership Program” has been evaluated and relaunched over the past few months and will enrich the offer of the “MM Academy” offering in a new format from next year. In our tried and tested training program, employees from all locations can choose from a variety of training courses that promote cross-border exchange and orientation towards our corporate values: responsible, collaborative, passionate and results-oriented.

In the “MM Academy”, employees receive further training in both classroom and online courses. The offer has also been expanded by additional online courses in order to give employees the opportunity to train independently, regardless of their location. In addition to the Group-wide platform “MM Academy”, employees are also trained through locally organized and site-specific training courses, for example in occupational health and safety.

“MM Next Generation”

The “MM Next Generation” program aims at training and promoting our young talents in Austria and Germany. Training in our apprenticeship companies enables us to meet our future demand for qualified employees. During their training, apprentices go through a dual system that combines practice in the Company with theory in vocational school and is supported by courses at the MM Apprentice Academy.

“MM Trainee+” program

The “Trainee+” program, which was newly developed last year, is geared towards university graduates with a broad educational background and potential for future expert and management positions. During this 2-year program, the trainees gain insights into different areas such as “Sales”, “Finance”, “Engineering” or “Business”. The program was very well received and the planned intake of around 5 trainees in the first year was clearly exceeded. We were able to attract 11 trainees, all of whom started in 2022. The still active “Ranger” and “Explorer” from the previous trainee program were integrated into the activities of the new “Trainee+” program. Thus, we were able to establish a strong trainee network with a total of 17 trainees (including “Ranger” and “Explorer”) in 2022.

The “Trainee+” program is also geared towards the individual development of the participants after completion and thus replaces the “Fast Mover” program.

“Methusalem” program

In the “Methusalem” (German for Methuselah) program, we tie many years of experience and the expert knowledge of older employees to our Company in selected projects. The objective is to combine proven experience with innovative success and to fundamentally secure complex projects. The exchange between young and old is a much appreciated, regular component of our personnel development programs.

Active personnel marketing & cooperations

In order to be well prepared for the challenges associated with a shortage of skilled workers on the labor market, we have continued to focus on expanding new and existing cooperations with relevant schools, technical colleges and universities. Our participation in various training programs and career fairs positions MM as an attractive employer and promotes the exchange with potential employees. For example, the MM Group became a corporate partner of the FH Technikum in order to strengthen our technical area and to acquire, develop and retain the best people for our Company in the long term. These initiatives are communicated and reinforced through the targeted online presence of our employer brand.

4.3 Measures and development

The development programs described above were consistently implemented and continued. The virtual learning formats remained an essential part of the training offer and thus also support our claim of being location-independent and international exchange. In addition to data security and compliance, we have placed our training focus on supporting individual professional tasks and personal challenges, including online coaching. In 2022, another focus was placed on strengthening our employer brand and increasing our attractiveness for applicants. Particularly our online presence was strengthened through numerous initiatives. The number of the followers of our Group-wide LinkedIn company profile increased by 175 %, for example. Our “employer promise”, summarized in the slogan “We get things done”, continues to be an apt description of our corporate culture and is increasingly used by employees in marketing of information and in communication.

A total of four discrimination incidents was reported in the financial year 2022, with all incidents reviewed by MM. Remedial actions were implemented and agreements were reached with all the parties concerned.

Objectives

- MM Group as an attractive employer and attractive workplace
- Promote professional and personal qualification
- MM as “Employer of Choice”

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 4.7 and 8.5.

GRI 2-7 **Employees by location and gender**

(Full employment equivalent taking into account all fully consolidated companies)

	31 Dec. 2022		31 Dec. 2021	
Europe (excl. Austria)	10,613	68 %	8,156	65 %
Austria	1,777	11 %	1,745	14 %
America	1,600	10 %	521	4 %
Rest of the world (incl. Türkiye, Russia)	1,650	11 %	2,070	17 %
Total	15,640	100 %	12,492	100 %
Male	11,740	75 %	9,703	78 %
Female	3,899	25 %	2,789	22,3 %
Non-binary	1	0 %	0	0 %

Training and further education in the Group

	MM Group	
Site-specific factory training – in hours	289,104	GRI 404-1
Of which average number of hours per participant	18	GRI 404-2
Average number of hours per participant – male	19	
Average number of hours per participant – female	16	
Average number of hours per participant – non-binary	0	
Group-wide training courses “MM Academy” – in hours	36,517	
Of which by participants – male	24,472	
Of which by participants – female	11,938	
Of which by participants – non-binary	107	
Group-wide training portfolio of the “MM Academy”	308	
Participants in “MM Academy” trainings ¹⁾	6,139	
Managers among them	1,087	

¹⁾ participants in central HR programs: “MM Next Generation” (apprentices/trainees): 50 in Germany, 54 in Austria; “Trainee+”: 17; “Methusalem”: 1

5 HUMAN RIGHTS

The MM Group is aware of the importance of human rights from both a value-oriented and an economic point of view and is fully committed to respecting and observing human rights and to actively avoiding human rights violations. On the one hand, this applies to our own employees within the Group. All employees, regardless of age, gender, culture, religion, origin or other diversity characteristics, are granted the same rights and opportunities. On the other hand, we are also committed to respecting human rights in our cooperation along the value chain with regard to the selection of our business partners. The “Prewave” tool, which was first implemented in 2022, will allow us to check our supply chain in real time with regard to violations of social and environmental concerns and initiate targeted measures. Through the revision of our Code of Conducts, human rights issues were brought more to the fore as well. In the wake of the war in Ukraine, MM was also concerned to support potential employees from Ukraine with targeted job offers and promote their integration.

5.1 Impacts, risks and opportunities

Although the majority of the MM Group’s sites are located in European countries, the Company may nevertheless be exposed to human rights risks, particularly in the non-European countries in which MM operates. For example, in some of these countries there are risks of forced labor, child labor and violation of labor standards and equal opportunities. However, in relation to our industry and with regard to the supply chain, the risks are considered low.

This means that appropriate compensatory measures prescribed by law are offered to employees. Flexible working time models, such as part-time work, are intended to facilitate the reconciliation of family and employment. In the MM Group, around 2 % of employees, mostly women, make use of this option. The Group offers its employees mostly permanent contracts; only around 8 % of employees, including apprentices and trainees, have fixed-term contracts. At the end of the year, 630 temporary workers were also employed in the Group for factory work or to compensate for capacity fluctuations. Depending on capacity utilization and the order situation, there are fluctuations in the number rented labor during the reporting period.

GRI 2-30 We recognize the entitlement of our workforce to appropriate remuneration. We use the customary remuneration for people in comparable positions in the same area as a basis for determining the remuneration of our employees. This includes the application of collective agreements at some locations. Throughout the Group, almost two-thirds of the employees of the MM Group are in an employment relationship governed by a collective agreement. Consequently around 35 % of employees are not covered by collective agreements. In this context, MM ensures that working conditions always comply with local laws and regulations. The contracts of temporary workers are in line with the collective agreements of other organizations. A high level of personal identification with the success of the Company is an integral part of our corporate culture. Therefore, performance-related forms of remuneration which ensure that individuals can participate in the Company's success through high performance have a long tradition in the Group. By including occupational safety as a success factor, we want to significantly increase Group-wide identification with this success factor as well.

The majority of the Group's employees are covered by defined contribution plans under the statutory pension scheme. In addition to the statutory pension scheme, the Group has granted defined benefit and defined contribution pension commitments to certain employees on the basis of individual commitments and company agreements. Furthermore, there are defined benefit and defined contribution severance payment obligations at individual locations as well as obligations within the framework of statutory partial retirement.

The MM Group is committed to respecting human rights within its sphere of influence and rejects any form of forced labor in its Company and among its business partners. The risks of human rights violations are reduced through the application of the Code of Conduct, regular external audits and the use of the "Prewave" risk management tool. We also reject child labor, regardless of local laws, everywhere in our Company and among our business partners. Throughout the Group, we therefore follow international standards (ILO Conventions C 138 and C 182) and keep records showing that our employees are of the minimum age required by law.

5.2 Measures and development

GRI 2-24 To ensure the protection of human rights, we focus on awareness-raising measures, such as employee training based on the Code of Conduct. Audits on human rights compliance were carried out at selected MM Group sites in 2022. In addition, business partners must also commit themselves to complying with our Code of Conduct. Increased attention will be paid to this requirement in subsequent years. To this end, assessments of human rights performance along the supply chain are planned. The evaluation of the human rights performance of our suppliers is aimed at those partners who are classified as particularly important for the MM Group according to criteria such as scope/type of business activity and influence (sales).

Objectives

- Ensure compliance with human rights within the MM Group
- Assessment of the human rights performance of 100 % of the MM Group's "key suppliers" by 2023

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 8.5.

	MM Board & Paper	MM Packaging ¹⁾	GRI 408-1
Child labor cases	0	0	
Cases of forced labor	0	0	
Producing countries with Fundamental Rights Index ≤ 0.4 (Rule of Law)	0 out of 6	3 out of 24	

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

6 SAFETY AND HEALTH

The health and safety of all stakeholders along the value chain is a top priority for MM. It is our corporate responsibility to ensure that all stakeholders return home safely from their workplace at the end of the working day. Our employee protection concept is tailored to our dynamic growth and the diverse safety cultures at our sites. The concept comprehensively implemented by a central office for health and safety which is pursued in an overarching manner by a central office for occupational safety, which is established in our operational sustainability.

6.1 Impacts, risks and opportunities

Despite accident prevention and health promotion actions, risks arise from work-related stress. Possible impairments arise from working in shifts, handling chemicals, working in confined spaces and from fire and hot work. Furthermore, psychological stress can have an impact on the health of employees. Active planning of health promotion measures reduces the risk. GRI 403-2

6.2 Management concepts and due diligence processes

The MM Group developed a model with five pillars to achieve measurable improvements quickly and sustainably:

Development of a safety policy as a documented summary of our values, claims and obligations. In addition, the importance of employee protection and occupational health care is explained. The tasks of those responsible and their special role model effect form the core. The fulfilment of and compliance with legal requirements are merely the basis; continuous improvement is expected and supported. Basic rules and generally applicable protective measures complete the policy. GRI 3-3
GRI 403-1
GRI 403-3
GRI 403-4
GRI 403-5
GRI 403-6

Focusing is achieved through detailed measurements of retrospective and forward-looking key performance indicators. The evaluation shows the respective situation of the individual locations; centrally monitored individual targets are used for further development. In the area of prevention, the aim is to overachieve in order to significantly reduce the risk of accidents. At the same time, the ongoing reduction of accident severity is an important indicator.

Through individual support on site, the existing safety culture is incorporated. We are aware that the level of maturity must be understood on the basis of the current situation. The arranged actions are particularly aiming at positively influencing the quality of leadership and the behavior considered to be desirable. A practical application of positive reinforcement of desirable behavior is aligned with the specifics of the location, the inner attitude of the staff and the history of the location. The full responsibility always remains with the top management of the supervised organizational unit.

Synergies through the merger of heterogeneous plants are a major advantage of the Group. In particular, the sharing of the best available solutions is coordinated and driven forward. It allows for a rapid implementation of proven measures in the best economic ratio. Open communication beyond company boundaries broadens the range of possibilities. Ongoing investments in the area of technical implementations make progress monetarily assessable and centrally monitorable.

The best results are achieved at plant level. We support the special responsibility of the respective plant managers with a clear commitment to the development and deployment of local experts. An appropriate exchange of knowledge and experience is also important to us. Regular cross-site meetings are supervised and important findings and safety alerts are shared. The establishment of regional or other higher-level positions is avoided as much as possible, and a very lean organization prevents undesirable overheads.

Ongoing Company medical care, the continuous offer of training courses on health and occupational safety as well as preventive medical check-ups are offered and employees do make use of this offer. The sustainable approach also includes targeted investment in ergonomic aids, which contributes significantly to keeping our employees healthy.

6.3 Measures and development

All key figures are measured monthly at site level and evaluated at Group level. Distribution is transparent and timely to ensure fast intervention. In the selection of key figures, emphasis was placed on the balance between leading and lagging key figures; they are based on international definitions.

As expected, the focus on moving away from reacting after accidents to acting after events without injuries has had a positive effect on the accident figures (especially after a start-up period). A significant reduction in accidents was achieved in 31 out of 51 surveyed production sites. At another eight locations, the already very good result was maintained. 12 sites had more accidents than in 2021, with most of them having a very low accident rate. Every site exceeded its prevention target in 2022.

Objectives 2022

- Promote accident prevention: mandatory reporting of near misses, unsafe conditions and actions for all MM sites
- Reduce occupational accidents with lost time at all sites

Objectives 2023

- Promote accident prevention: mandatory reporting of near misses, unsafe conditions and actions for all MM sites. Based on the 2022 result of 6,243 reports, a minimum of 6,886 reports are expected as a target in 2023
- Reduce the accident rate $LTAR_{(200)}$ at all sites, based on a reduction of the Group result from 2.18 to a threshold of $LTAR$ 1.96 in 2023

	MM Group	GRI 403-8
ISO-45001-certified production sites ¹⁾	17 out of 72	GRI 403-9
Occupational accidents with more than one day of absence	225	
Accident rate LTAR ₍₂₀₀₎ ²⁾	2	
Prevention - number of near miss reports	6,243	
Days lost due to accidents ³⁾	3,284	
Support visits to sites	36	
Occupational accidents with serious consequences ⁴⁾	0	
Fatal occupational accidents	0	

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ change of measurement basis: 2021: calendar days / 2022: working days

³⁾ number of employees covered in hours worked 2021 - 17.1 million / 2022 - 20.7 million

⁴⁾ occupational accidents with subsequent impairment of quality of life

Prosperity

Focus on MM Sustainability Topics



100%

ISO-9001-certified
production sites

90%

of key suppliers
assessed

0

cases of
corruption

Responsible Management

MM focuses on OT security in production

The digitalization and automation of production and industrial plants is continuing to make progress in the MM Group. In addition to increasing productivity, improving quality and simplifying processes, this also involves the major challenge of managing increasing cyber security risks for production systems and generated data. For this reason, MM has initiated a comprehensive OT security project. For us, operational technology security means complete transparency of the production environment, risk detection and mitigation, asset inventory, vulnerability management and configuration control. In order to guarantee effective

protection and ensure the availability of our system, cyber protection has been considered at all levels of production and a comprehensive and holistic OT security concept has been put in place. As a result of the rapidly growing convergence of IT and OT systems, the increasing dependency of production on IT systems and the growing interdependence of business processes, data and networked devices, we at MM rely on innovative and efficient methods for countering cyber threats and guaranteeing security and availability.

In order to survive digitally on the global market of the future, the OT security project is an important milestone for MM towards a multi-layer security infrastructure in our production areas.



Innovation and Quality



Our employees submitted their ideas for saving energy as part of the “Energy Saver Challenge” to help reduce our carbon footprint. The initiative also supports the reduction of energy consumption and thus the reduction of rising energy costs.

Energy Saver Challenge

The initiative “Energy Saver Challenge” was launched to collect ideas for saving energy for the entire organization. Over a period of two months, more than 400 ideas were submitted by our employees via the “we.improve” idea platform. The majority of ideas were related to building installations and renovations, followed by technical projects and those that create more awareness of energy savings and increase energy efficiency at the workplace. In this spirit, posters were designed to motivate people to save energy in their everyday lives. In addition, awards were given to the best ideas and the employees with the most ideas. In the near future, it will be decided which of the submitted ideas can be realized as projects at MM.

Value Chain

Implementation of an ESG Risk Management Tool

Sustainability along the logistics and supply chain has become increasingly important for the success of our company. In addition to the growing awareness on the part of our customers, employees, shareholders and society, we see it as our obligation to ensure the availability of materials and raw materials in a long-term perspective. Even under volatile political and economic conditions, we want to always comply with current and future legal requirements. Due to the higher number of hubs (supplier and transport hubs), it is extremely challenging for manufacturing companies such as MM to systematically analyze sustainability along the logistics and supply chain. With the implementation of the supply chain intelligence tool “Prewave”, MM is now able to track ESG risks (environment, social, governance) along the supply chain in real time and to contact our suppliers immediately in case of violations. In addition to monitoring ESG risks in real time, “Prewave” makes

human rights standards and fair working conditions along the supply chain more transparent, enabling MM to take even more targeted actions.



As part of the project, the MM Group is developing a “Commodity Approach” for the pulp and paper industry. Industry-specific risks will be taken into account to a greater extent in the future and resilience along our supply chain will be further increased.

7 RESPONSIBLE MANAGEMENT

GRI 2-23 MM's objective is to sustainably increase the value of the Company through responsible corporate activity in accordance
 GRI 2-24 with all legal regulations, common industry standards and the universal principles of the UN Global Compact in the areas of human rights, labor standards, environmental protection and anti-corruption. In this context, compliance with laws, standards and codes of conduct has been defined as material topic for the MM Group and as a contribution to society. This also includes measures to avoid corruption, to ensure compliance with anti-trust law and to protect data in the sense of corporate data responsibility. The Code of Conduct adapted in this business year emphasizes the observance of human rights along the supply chain. Through innovative tools, we pursue the goal of further minimizing risks along the entire value chain. The MM Group sees its responsibility with respect to the environmental impact of its own business activities as going beyond the minimum legal standards. We aim at minimizing the negative impact of our processes along the entire supply chain through sustainable products.

7.1 Impacts, risks and opportunities

GRI 205-3 Compliance with guidelines and requirements is essential for our customer relationships as well as for the trust of all other stakeholders. Potential risks of the MM Group's business activities are the possible non-compliance with standards, laws, rules of conduct and, where applicable, voluntary declarations, as well as cases of corruption and anti-competitive behavior. The risk of corruption is considered very low in European countries due to legal regulations. Furthermore, we assume that the business of the MM Group is not the focus of fraudulent acts, in particular due to the low fungibility of the products we produce. We attach great importance to the protection of the data of our customers and employees. In this respect, we comply with the legal requirements for the protection of our stakeholders' data and take measures to minimize the risk of potential cyber-attacks and ensure information security.

GRI 3-3 7.2 Management concepts and due diligence processes

The MM Board & Paper division generates 91 % of its sales in Europe and 9 % in the rest of the world. The six cartonboard and paper mills are located in Germany, Poland, Finland, Austria and Slovenia. The location of our fiber mill is in Norway. The MM Packaging division has 65 production sites in 24 countries on three continents. 67 % of sales are generated in European countries. MM Packaging's production outside Europe takes place in China, the Philippines, the United States of America, Canada, Colombia, Puerto Rico, Chile, Vietnam, Jordan and Iran. We comply with all pertinent laws and regulations of the countries in which we do business and observe the respective social norms. The essential requirements, guidelines, standards and certifications with regard to sustainability are mentioned in the preceding chapters. We always act in the best interests of the MM Group and keep corporate and private interests strictly separate. We want to avoid even apparent any conflict of interest. We comply with all relevant laws and regulations of the countries in which we do business and observe the respective social standards. In our business relationships, we always act within the framework of the relevant regulations against corruption, bribery, fraud and money laundering. We undertake to refrain from gifts, benefits or participations that could lead to a conflict of interest. It is also prohibited to accept, offer or make bribes or other illegal payments and benefits. In accordance with Rule 18a of the Austrian Corporate Governance Code, the Management Board reports to the Supervisory Board at least once a year on the precautions taken to combat corruption in the Group.

We are fully committed to fair competition with our competitors, business partners and other market participants. At the same time, we undertake to comply with the laws against restraint of competition in all countries in which the MM Group does business. Compliance which includes all measures aimed at observing laws, rules of conduct and other standards is a central management task of the Management Board in the Group, with the CFO (Chief Financial Officer) having special departmental responsibility. For this purpose, the “Compliance” department has been set up in the legal department of the MM Group to coordinate the development of compliance management with the CFO.

We counter the compliance risk, i.e., the risk of possible non-compliance with standards, laws, rules of conduct and, if applicable, voluntary declarations, through a variety of measures: in order to ensure compliance, we subject our internal and external processes to continuous monitoring and, in this context, continuously verify that our business conduct complies with applicable legal provisions, in cooperation with external experts. Organizational guidelines that apply throughout the Group provide our employees with clear guidelines on compliance and lawful conduct. These guidelines are supplemented by training, especially in complex areas such as competition law, data protection and information security. Significant violations of laws and regulations in the environmental, social and economic areas are queried via our reporting/controlling platform. GRI 2-27

In all companies of the MM Group, regardless of local legal provisions, a dual control principle applies for representing the respective company externally. Furthermore, all our managers are instructed to comply with certain defined approval processes when or before carrying out certain measures and legal acts. In addition, the systematic monitoring of individual organizational units (plants, divisions, central Group functions) by the Internal Audit department helps to ensure compliance. The MM Group's open and forward-looking corporate culture creates the basis for freedom of expression. Already in 2021, the “MM Integrity Line” was set up as an internal reporting channel in accordance with EU Directive 2019/1937. It serves as a whistleblowing system for both employees of the MM Group and external stakeholders who wish to report circumstances or conduct within the Group which they consider to be non-compliant or ethically unacceptable. GRI 2-16
GRI 2-26

Due to the progress of digitalization and automation of production processes, the MM Group has initiated a comprehensive OT-security project this financial year in order to take targeted action against the increasing cyber security risks. A holistic approach at all levels of production ensures information security as a central element. In this way, we prepare ourselves against cyber threats that arise from the increasing digital networking due to the latest production and industrial facilities.

7.3 Measures and development

MM stands for responsible corporate governance. Guided by the principles of integrity, honesty and transparency, the MM Group is committed to meeting the highest possible standards in terms of quality, safety and sustainability. With the “MM Integrity Line”, a whistleblowing system has been implemented. All reports are strictly confidential and subject to our data protection policy. Starting in the reporting period 2023, the total number and type of reports received will be reported to the Supervisory Board at the annual Supervisory Board meeting.

Objectives

- Demand and promote compliance-compliant behavior in line with compliance requirements within and outside the MM Group
- Continue to promote internal training on competition law, data protection and information security

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 8.7.

		MM Group	
GRI 2-27	No significant fines or sanctions due to non-compliance with environmental, social and economic laws and regulations		✓
		MM Board & Paper	MM Packaging¹⁾
GRI 205-3	Production countries ¹⁾ with corruption index < 30 according to Transparency International Corruption Index 2022	0 out of 6	1 out of 24
GRI 206-1	Confirmed cases of corruption	0	0
	Claims/legal proceedings for anti-competitive behavior	0	0

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

8 INNOVATION AND QUALITY

At the MM Group, innovation is lived as a process that provides timely solutions for future challenges and creates new sustainable solutions that also go beyond previous business areas. The focus is on sustainably securing and strengthening growth and competitiveness as well as long-term efficiency increases and cost reductions. The MM Group aims at identifying market and future trends at an early stage and exploiting them for the benefit of its customers and the Group as a whole. The promotion of innovations takes place in particular under the aspects of sustainability and product safety. The safety of (food) packaging has long been a central issue for the MM Group. This means that, on the one hand, the MM Group's products themselves do not contain any harmful substances and, on the other hand, are also safe from migration and other external influences.

8.1 Impacts, risks and opportunities

GRI 403-8 On the one hand, innovation activities are driven by the need for continuous product and process optimization, and on the other hand, changing legal framework conditions sometimes require further developments. Finally yet importantly, the development of new business fields to the future and targeted applications is a driving force for innovation activities. The development and implementation of product innovations always take into account potential product safety risks.

The risk of a potential contamination of products, consumer health risks and potential violations of relevant regulations, laws and guidelines and potential recalls in the supply chain are minimized by establishing high standards in quality management and carrying out regular internal and external investigations. Opportunities are offered in particular by the development of innovative and sustainable packaging solutions that combine high safety for the packaged goods and the consumers with ecological benefits resulting from resource conservation and recyclability.

8.2 Management concepts and due diligence processes

A newly created and continuously developed innovation process ensures that innovations are accompanied from idea generation to implementation in a targeted manner with the necessary resources and the right experts from our specialist departments. The focus is placed on evaluating innovations in detail and implementing them as projects as soon as possible in order to meet the requirements for state-of-the-art technological functionality, quality, safety and sustainability. GRI 3-3
GRI 416-1

As part of the organizational structure, “Group Quality Management” and “Group Product Safety” deal with complaints management and product quality assurance and verify compliance through external certifications. They are an important proof for customers and consumers that our product innovations are sustainable, socially acceptable and harmless to health. In addition, they confirm legal compliance in the area of product safety. Regularly checking both existing products and innovative solutions for compliance with the certification criteria ensures rigorous quality assurance at the same time, which is also visible to the public. GRI 2-25

Our quality management is certified according to ISO 9001 with respect to product quality and food safety; all production sites of the MM Board & Paper division as well as the vast majority of the plants of the Packaging division have been certified according to this standard. In addition, we use recognized hygiene management systems with certifications such as BRC Packaging of the British Retail Consortium of the Global Food Safety Initiative (GFSI) and further global standards such as FSSC 22000 or ISO 22000, ISEGA as well as EN 15593. All MM Board & Paper mills as well as more than 60 % of the MM Packaging plants are certified according to one or more of these international hygiene management standards. Delivering safe food packaging to customers and end consumers is a priority in the folding carton industry. As an initiative of the European Carton Makers Association (ECMA), the ECMA GMP Guideline was developed to ensure consumer safety of food products. All European packaging sites meet the requirements of this guideline.

The respective certifications of individual MM sites can be found on our divisional websites at <https://www.mm-board-paper.com/en/company/mills> and <https://www.mm-packaging.com/en/company/plants>.

8.3 Measures and development

In the financial year 2021, the first Group-wide ideas platform “we.invent” was launched. The aim of this ideas platform is to give all employees of the Group the opportunity to submit ideas, thus integrating our workforce into our innovation process. The MM Group is convinced that every single idea counts and can achieve great things. For this reason, all submitted ideas go through a stage-gate process, are evaluated and prioritized. The best ideas are awarded prizes and finally put into action. In 2022, an additional ideas competition was launched. Within the framework of the “Energy Saver Challenge”, employees submitted creative solutions and ideas that have the potential to save energy. Awards were presented for the best ideas. In order to further prioritize quality management within the MM Group, a new Group function called “Group Quality Management” was implemented in the financial year 2022. This was done in particular to create uniform standards and synergy effects.

Objectives

- Push product and process innovations to optimize product end-of-life
- Improve the use of natural raw materials and further substitution of plastics across the MM product range

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 9.4.

		MM Board & Paper	MM Packaging ¹⁾
GRI 416-1	Assessment of the health and safety impacts of product and service categories	100 %	
GRI 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	0	0
	ISO-9001-certified production sites	7 out of 7	65 out of 65
	Production sites ¹⁾ certified according to food safety or hygiene (BRC, ISO 22000, EN 15593, ECMA GMP, HACCP)	4 out of 7	30 out of 65

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

9 VALUE CHAIN

GRI 2-6 Together with our customers and partners, we pursue the goal of making our products even more sustainable along the entire value chain. As the MM Group, we see ourselves as part of a larger whole. In order to advance sustainable development taking into account economic, environmental and social aspects, it is necessary to work together in partnership. Only then can a systemic change towards more sustainability be achieved. The integration of the entire value chain is a win-win situation for all stakeholders involved.

9.1 Impacts, risks and opportunities

Staying in close contact with customers and partners along the value chain offers us flexibility and agility, and an intensive exchange enables us to quickly respond to changing market requirements. MM focuses on the accumulation of detailed knowledge along the product life cycle. Compliance with legal regulations is the minimum standard of our production. Violation of any type of applicable regulations represents a risk for the MM Group. As part of a long production chain, the MM Group depends not only on its own performance but also on the performance of the partners who are part of our supply chains. For this reason, the MM Group is stepping up its efforts to gain a more detailed understanding of its own suppliers and their production steps. In this financial year, the risk assessment of suppliers was initiated at Group level order to pursue this objective. Opportunities and risks are to be uncovered and appropriately classified, processed or eliminated. In this way, we also support our customers in the implementation of their sustainability goals. Ensuring transparency and sharing knowledge are fundamental prerequisites for this. With this in mind, in the reporting period 2022, we focused on a risk assessment of our suppliers and initiated the implementation of the supplier risk management platform

GRI 2-23 “Prewave” was initiated. This allows for the monitoring of ESG risks based on artificial intelligence in real time. In addition, the platform increases transparency in the event of violations of human rights and fair working conditions.

9.2 Management concepts and due diligence processes

GRI 3-3

GRI 2-28

For years, the MM Group has participated in the collection of emissions and environmental data by CDP (Disclosure Insight Action) in order to have its sustainability performance assessed by external, internationally recognized institutions and disclosed within the value chain. In the most recent assessment round, the MM Group was awarded an “A” in the area of “Climate Change” and a “B” in the area of “Forests”. The rating of “A” gives the MM Group “leadership status” in this area through the comprehensive disclosure of its environmental data and demonstrates a thorough awareness of climate-related risks and their successful management. In addition, we achieved a B-rating in the first submission of data for the area of “Water Management”. We were able to achieve “bronze” status in the sustainability rating by EcoVadis. Already in 2021, MM has joined the global initiative “Business Ambition for 1.5°C” in order to contribute to limiting global warming to 1.5 degrees through appropriate measures by 2050. As part of this, the MM Group is committed to implementing science-based climate targets.

Cooperation with international industry associations and interest groups is of particular importance within the MM Group in order to achieve our sustainability goals. MM is regularly represented at relevant trade fairs and congresses (e.g. COP 27), participates in global competitions and is presented by company representatives in European (e.g. CEPI, ECMA, Europen) and national interest groups (e.g. VDP, Austropapier). Since 2019, MM Group has been part of the “4evergreen Alliance”, which was initiated by CEPI, the European Confederation of Paper Industries, and creates guidelines for current and future EU legislation (<http://www.cepi.org/4evergreen>). In 4evergreen, companies from the entire value chain work together to promote the recycling of fiber-based packaging and cooperation in the development of recyclable materials. The aim is to increase the contribution of fiber-based packaging to a sustainable circular economy in order to minimize impacts on climate and the environment.

9.3 Measures and development

We expect our business partners to always comply with all legal regulations and industry standards along the entire supply chain and encourage them to introduce and implement similar principles of responsibility. In MM’s purchasing conditions, suppliers are obliged to comply with the MM Group’s Code of Conduct. In addition, we are pushing to expand supplier evaluations at Group level with regard to environmental and social criteria, especially for risk management. This is supported by the MM Group’s sustainability targets defined in 2021.

With regard to the current and future resilience of our supply chain, the project “MM Supply Chain 2022” has been launched, future scenarios have been developed and the “Prewave” risk management software has been implemented in the Group. The project is funded by the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology (BMK) and managed by Schieneninfrastruktur-Dienstleistungsgesellschaft mbH (SCHIG mbH) within the framework of the Logistics Support Program.

Based on this, we will be able to better assess the sustainability performance of our suppliers, focusing on those that have been classified as particularly important to the MM Group according to criteria such as scope/type of business and influence capacity (sales). By engaging in an intense exchange with our suppliers and partners, we want to achieve a systemic change towards sustainability together with them and implement innovations to promote the circular economy.

Objectives

- Exchange on the MM Group's sustainability targets with 90 % of "key suppliers" by 2025
- Assessment of the sustainability performance of 90 % of the MM Group's "key suppliers" by 2023
- Promote cooperation for circular innovations along the entire value chain

This promotes the implementation of the following Sustainable Development Goals (SDGs): SDG 12.2.

Disclosures on the Consolidated Non-financial Report

With this report, Mayr-Melnhof Karton AG (hereinafter also referred to as MM Group/MM) fulfils its obligation to prepare a separate consolidated non-financial report in accordance with section 267a of the Austrian Commercial Code (UGB). Accordingly, MM has expanded its annual financial reporting for the sixth time to include information on material non-financial aspects of its business activities in the areas of employee, social and environmental issues as well as respect for human rights and the fight against corruption and bribery. This year, the consolidated non-financial report was again prepared in accordance with the GRI standards issued by the Global Sustainability Standards Board (GSSB). The standards of the Global Reporting Initiative (GRI) have become established as an internationally recognized framework for sustainability reporting. The GRI Content Index is printed in the appendix starting on page 162. GRI 2-1

This Consolidated Non-financial Report was prepared by Mayr-Melnhof Karton AG, Vienna, as of December 31, 2022. It includes the activities and key figures of the MM Group in accordance with the reporting boundaries and the reporting period of the Annual Report 2022. Any deviations from the scope of consolidation are indicated in the individual chapters. The report refers to the financial year 2022, which corresponds to the calendar year 2022. The last available report is dated December 31, 2021. In the reporting period, there were the following significant changes in the size, structure and ownership of the organization: acquisition of Essentra Packaging with international presence in Europe and the US as well as the Nordic packaging group Eson Pac; sale of the packaging sites in St. Petersburg and Pskov, Russia. GRI 2-2
GRI 2-6
GRI 2-3

PwC Wirtschaftsprüfung GmbH, Vienna, has performed an independent limited assurance review of the Consolidated Non-financial Report. The corresponding report can be found on page 168.

The Consolidated Non-financial Report of Mayr-Melnhof Karton AG has been published annually ever since 2017 and is subject to a continuous improvement process. In the reporting period 2021, sustainability management as well as non-financial reporting were significantly advanced. The determination of relevant data has been implemented through a new reporting/controlling platform for non-financial key figures. In 2022, the annual reporting of our plants was complemented by a monthly data query in order to further increase transparency and data quality. The revision of the GRI Standard 2021 made the “core” and “comprehensive” reporting options obsolete. Accordingly, the changeover from “core” to reporting “in accordance” with the GRI standards took place in the financial year 2022. This means an expansion of non-financial reporting for the MM Group. GRI 3-1

GRI 2-28 In the reporting period 2022, with the “MM Message House” the focus was on the internal stakeholder dialog. The evidence-based targets to reduce the CO₂ footprint were officially confirmed by the Science Based Targets Initiative in 2022. When integrating climate-related risks and opportunities into the existing reporting structure, we are guided by the TCFD (Task Force on Climate-Related Financial Disclosures) framework. MM is committed to biodiversity conservation and access to sustainable, fiber-based raw materials, and this is set out in the “MM Policy for Forests and Natural Ecosystems”. Already in 2021, a water catchment analysis was carried out for the MM Board & Paper mills. In 2022, the project “Blue Water Consumption” was initiated in order to map water-related impacts holistically, taking into account direct and indirect aspects. The inclusion of sustainability agendas in investments is of great importance for the business activities of the MM Group and is further driven by legal requirements such as the EU Taxonomy. We intend to further develop the data collection and reporting processes in the upcoming years. In this way, the demand for increased transparency, international comparability and the growing information needs of our stakeholders can be integrated into MM’s sustainability management.

GRI 2-3 **Contact:** Stephan Sweerts-Sporck
Phone: +43 1 501 36 91180; e-mail: investor.relations@mm.group

Vienna, March 13, 2023

The Management Board

Peter Oswald m. p.

Franz Hiesinger m. p.

Appendix: MM sustainability performance at a glance

On the following pages, we present an overview of the MM Group's sustainability performance over the last three financial years from 2020 to 2022 (if reliable data is available for all reporting periods). The disclosure of our non-financial key figures includes all production sites of the MM Board & Paper and MM Packaging divisions with full-year values. This also applies in particular to the newly acquired plants Essentra Packaging and Eson Pac. However, the Russian sites of the MM Packaging division in St. Petersburg and Pskov are no longer included.

GRI 2-3

GRI 2-4

EU TAXONOMY CONTENT INDEX

EU Taxonomy - KPI Turnover																				
Economic activities (1)	Code(s) (2)	Absolute Turnover (3)	Proportion of Turnover (4)	Substantial contribution criteria						DNSH										
				Climate Change Mitigation (CCM) (5)	Climate Change Adaptation (CCA) (6)	Water and marine resources (7)	Circular economy (8)	Pollution (9)	Biodiversity and ecosystems (10)	Climate Change Mitigation (CCM) (11)	Climate Change Adaptation (CCA) (12)	Water and marine resources (13)	Circular economy (14)	Pollution (15)	Biodiversity and ecosystems (16)	Minimum Safeguards (17)	Taxonomy-aligned proportion on Turnover year 2022 (18)	Taxonomy-aligned proportion on Turnover year 2021 (19)	Category (enabling activity) (20)	Category (transitional activity) (21)
A. Taxonomy-eligible activities																				
A.1 Environmentally sustainable activities (taxonomy-aligned)																				
Turnover of environmentally sustainable activities (taxonomy-aligned) (A.1)		0	0.0																	
A.2 Taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned)																				
Turnover of taxonomy-eligible but not environmentally sustainable activities (not taxonomy-aligned) (A.2)		0	0.0																	
Total (A.1 + A.2)		0	0.0																	
B. Taxonomy non-eligible activities																				
Turnover of Taxonomy non-eligible activities (B)		4,682,060.00	100.0																	
Total (A+B)		4,682,060.00	100.0																	

OVERVIEW OF NON-FINANCIAL INDICATORS

PLANET

Energy consumption	2022	2021	2020	
Energy consumption in cartonboard and paper production ¹⁾	9.66 TWh	10.5 TWh	3.4 TWh	GRI 302-1
Specific energy consumption ¹⁾	4.6 MWh/t	4 MWh/t	1.9 MWh/t	GRI 302-3
Energy consumption in packaging production	0.45 TWh	0.4 TWh	0.4 TWh	
Specific energy consumption ²⁾	0.5 MWh/t	0.4 MWh/t	0.4 MWh/t	
Emissions	2022	2021	2020	GRI 305-1
<i>MM Board & Paper</i>				
Direct CO ₂ emissions in cartonboard and paper production (Scope 1) ³⁾	1.06 million t CO ₂ e	1.26 million t CO ₂ e	0.5 million t CO ₂ e	GRI 305-2
Specific direct CO emissions ^{2) 3)}	0.40 t CO ₂ e/t	0.45 t CO ₂ e/t	0.3 t CO ₂ e/t	GRI 305-3
Indirect CO ₂ emissions (Scope 2, location-based) ³⁾	0.51 million t CO ₂ e	0.46 million t CO ₂ e		GRI 305-4
Indirect CO ₂ emissions (Scope 2, market-based) ³⁾	0.71 million t CO ₂ e	0.56 million t CO ₂ e		
Indirect CO ₂ emissions (Scope 3) ^{1) 4)}	1.80 million t CO ₂ e	1.45 million t CO ₂ e		
<i>MM Packaging¹⁾</i>				
Direct CO ₂ emissions in packaging production (Scope 1) ³⁾	0.02 million t CO ₂ e	0.03 million t CO ₂ e	0.03 million t CO ₂ e	
Specific direct CO emissions ^{2) 3)}	0.03 t CO ₂ e/t	0.04 t CO ₂ e/t	0.03 t CO ₂ e/t	
Indirect CO ₂ emissions (Scope 2, location-based) ³⁾	0.12 million t CO ₂ e	0.1 million t CO ₂ e		
Indirect CO ₂ emissions (Scope 2, market-based) ³⁾	0.10 million t CO ₂ e	0.07 million t CO ₂ e		
Indirect CO ₂ emissions (Scope 3) ^{1) 4)}	0.69 million t CO ₂ e	0.75 million t CO ₂ e		

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ on the basis of net production or processed tonnage

³⁾ emission factors used according to the GHG Protocol, life cycle assessment databases GaBi and EcolInvent, as well as the respective emission factors of the electricity suppliers

⁴⁾ emissions considered for purchased goods and services, fuel and energy-related activities, waste and transport of employees

Environmental and energy management¹⁾		2022	2021	2020
	ISO-14001- or EMAS-certified production sites	50 out of 72	28 out of 50	31 out of 50
	ISO-50001-certified production sites	13 out of 72	10 out of 50	11 out of 50
GRI 2-4	Raw materials	2022	2021	2020
GRI 301-1	<i>MM Board & Paper</i>			
GRI 301-2	Renewable raw materials ²⁾	2.3 million t	2.4 million t ⁵⁾	1.7 million t
	Fiber input	2.3 million t	2.4 million t ⁵⁾	1.6 million t
	Recycled fibers ³⁾	1.1 million t	1.3 million t ⁵⁾	1.2 million t
	Virgin fibers ⁴⁾	1.2 million t	1.1 million t ⁵⁾	0.4 million t
	Share of renewable raw materials	74 %	79 %	89 %
	Non-renewable raw materials	0.8 million t	0.9 million t	0.2 million t
	Percentage of recycled input materials used	34 %		
	<i>MM Packaging¹⁾</i>			
	Renewable raw materials ²⁾	1.0 million t	0.8 million t	0.9 million t
	Cartonboard and paper insert	1.0 million t	0.8 million t	0.8 million t
	Recycled fibers ³⁾	0.4 million t	0.4 million t	0.4 million t
	Virgin fibers ⁴⁾	0.6 million t	0.4 million t	0.4 million t
	Share of renewable raw materials	95 %	94 %	95 %
	Non-renewable raw materials	0.05 million t	0.05 million t	0.0 million t
	Responsible procurement	2022	2021	2020
	Virgin fiber in cartonboard and paper production ³⁾			
	from FSC®-certified sources	75 %	59 %	23 %
	from PEFC-certified sources	22 %	33 %	36 %
	from controlled sources ⁶⁾	3 %	8 %	41 %
	Virgin fiber in packaging production ¹⁾			
	from FSC®-certified sources	22 %	19 %	17 %
	from PEFC-certified sources	12 %	16 %	10 %
	FSC®-certified production sites	56 out of 72	44 out of 50	46 out of 52
	PEFC-certified production sites	35 out of 72	38 out of 50	40 out of 52
GRI 204-1	Regional procurement			
	Proportion of spending on local suppliers for virgin/recycled fibers	60 %		

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ including packaging materials

³⁾ excluding rejects

⁴⁾ groundwood pulp equivalent

⁵⁾ adjustment of the values for renewable raw materials due to changes in the survey methodology with regard to wood/fiber moisture content

⁶⁾ including FSC®-controlled wood

Waste in production	2022	GRI 306-3 GRI 306-4 GRI 306-5
<i>MM Board & Paper</i>		
Waste treatment internal (on site) total	29,859 t	
Non-hazardous waste incinerated with energy recovery	9,219 t	
Non-hazardous waste landfilled	20,640 t	
Waste treatment by external parties (off site) total	0.36 million t	
Non-hazardous waste reused/recycled	0.19 million t	
Non-hazardous waste incinerated with energy recovery	0.14 million t	
Non-hazardous waste incinerated without energy recovery	1,227 t	
Non-hazardous waste landfilled	18,185 t	
Other treatment of non-hazardous waste	6,183 t	
Hazardous waste reused/recycled	327 t	
Hazardous waste incinerated with energy recovery	8 t	
Hazardous waste incinerated without energy recovery	40 t	
Hazardous waste landfilled	4 t	
Other hazardous waste treatment	80 t	
<i>MM Packaging¹⁾</i>		
Waste treatment by external parties (off site) total	0.21 million t	
Non-hazardous waste reused/recycled	0.18 million t	
Non-hazardous waste incinerated with energy recovery	3,844 t	
Non-hazardous waste incinerated without energy recovery	569 t	
Non-hazardous waste landfilled	3,199 t	
Other treatment of non-hazardous waste	16,278 t	
Hazardous waste reused/recycled	1,679 t	
Hazardous waste incinerated with energy recovery	1,650 t	
Hazardous waste incinerated without energy recovery	297 t	
Hazardous waste landfilled	156 t	
Other hazardous waste treatment	125 t	

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

GRI 303-3	Water consumption¹⁾²⁾	2022	2021	2020
GRI 303-4	Water withdrawal in cartonboard and paper production by source	67.9 million m ³	70 million m ³	19.7 million m ³
GRI 303-5	Surface water	60.2 million m ³	N/A	N/A
	Groundwater	6 million m ³	N/A	N/A
	Seawater	1.4 million m ³	N/A	N/A
	Water produced	N/A	N/A	N/A
	Water from third parties	43 thousand m ³	N/A	N/A
	Water from other sources	251 thousand m ³	N/A	N/A
	Water recirculation in board and paper production	63.4 million m ³	N/A	N/A
	Surface water	44.0 million m ³	N/A	N/A
	Seawater	17.5 million m ³	N/A	N/A
	Water from third parties	1.9 million m ³	N/A	N/A
	Water consumption in cardboard and paper production	4.5 million m ³	N/A	N/A

¹⁾ data refer to MM Board & Paper division only, as water consumption in the Packaging division is not considered significant as no process water is generated.

²⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

PEOPLE

Significant local employment effects²⁾	31 Dec. 2022	31 Dec. 2021	31 Dec. 2020
<i>Employees¹⁾ per country</i>			
Poland	3,361	3,122	670
Germany	2,343	2,201	2,632
Austria	1,777	1,745	1,764
France	942	889	919
United Kingdom	889	281	255
US	775	0	0
Türkiye	744	599	478
Spain	564	152	139
Finland	555	535	0
Ireland	450	0	0
Slovenia	401	407	398
Chile	299	291	244
Puerto Rico	288	0	0
Iran	315	263	270
Romania	249	253	223
Sweden	220	0	0
Ukraine	207	227	229
Italy	199	6	5
China	193	195	202
Colombia	190	181	174
Vietnam	164	147	137
Jordan	115	114	112
Philippines	100	101	117
Norway	70	66	73
Denmark	62	0	0
Netherlands	62	2	209
Canada	48	49	49
Russia	16	648	624
Other	42	18	15
Total	15,640	12,492	9,938

¹⁾ full employment equivalent for all fully consolidated companies

²⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

GRI 2-7	Employees by gender ¹⁾²⁾	Total	male	female	non-binary
	Number of permanent employees	14,374	76 %	24 %	0 %
	Number of temporary employees	1,266	61 %	39 %	0 %
	Number of full-time employees	15,258	76 %	24 %	0 %
	Number of part-time employees	382	21 %	79 %	0 %

GRI 2-7	Employees by region ¹⁾²⁾	Total ¹⁾	Europe (excl. Austria)	Austria	America	Rest of the world (incl. Türkiye, Russia)
	Permanent employees	14,374	93 %	100 %	90 %	81 %
	Temporary employees	1,266	7 %	0 %	10 %	19 %
	Full-time employees	15,258	98 %	93 %	100 %	100 %
	Part-time employees	382	2 %	7 %	0 %	0 %

¹⁾ full employment equivalent for all fully consolidated companies

²⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

GRI 404-1	Training and further education in the Group ¹⁾²⁾	MM Group
GRI 404-2	Site-specific factory training - in hours	289,104
GRI 404-3	Of which average number of hours per participant	18
	Average number of hours per participant - male	19
	Average number of hours per participant - female	16
	Average number of hours per participant - non-binary	0
	Group-wide training courses "MM Academy" - in hours	36,517
	Of which by participants - male	24,472
	Of which by participants - female	11,938
	Of which by participants - non-binary	107
	Group-wide training courses of the "MM Academy"	308
	Participants in "MM Academy" trainings ³⁾	6,139
	Managers among them	1,087
	Employees receiving regular performance and career development reviews	65 %
	Management - male	5 %
	Management - female	2 %
	Management - non-binary	0 %
	Office - male	11 %
	Office - female	10 %
	Office - non-binary	0 %
	Production site - male	58 %
	Production site - female	12 %
	Production site - non-binary	0 %
	Apprentices - male	1 %
	Apprentices - female	0 %
	Apprentices - non-binary	0 %

¹⁾ full employment equivalent for all fully consolidated companies

²⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

³⁾ participants in central HR programs: "MM Next Generation" (apprentices/trainees): 50 in Germany, 54 in Austria; "Trainee+": 17; Methusalem: 1

GRI 406-1	Discrimination incidents in the Group¹⁾	MM Group
GRI 406-1	Total number of discrimination incidents during the reporting period	4

GRI 403-8	Employee safety and health¹⁾	MM Group
GRI 403-9	ISO-45001-certified production sites	17 out of 72
	Occupational accidents with more than one day of absence	225
	Accident rate LTAR ₍₂₀₀₎ ²⁾	2
	Prevention - number of near miss reports	6,243
	Days lost due to accidents ³⁾	3,284
	Support visits to sites	36
	Occupational accidents with serious consequences ⁴⁾	0
	Occupational accidents resulting in death	0

Human rights¹⁾	2022	2021	2020
Child labor cases	0	0	0
Cases of forced labor	0	0	0
Producing countries with Fundamental Rights Index \leq 0.4 (Rule of Law)	3 out of 27	0 out of 21	0 out of 21

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ number of employees covered in hours worked in 2021 - 17.1 million / 2022 - 20.7 million.

³⁾ changeover of measurement: 2021: calendar days / 2022: working days

⁴⁾ occupational accidents with subsequent impairment of quality of life

PROSPERITY

GRI 2-27	Violation of guidelines and requirements¹⁾	2022	2021	2020
	Total number of material breaches of laws and regulations	0	N/A	N/A
	Fines or sanctions for non-compliance with environmental, social and economic laws and regulations	0	0	0

GRI 205-3	Anti-corruption and anti-competitive behavior¹⁾	2022	2021	2020
GRI 206-1	Production sites in countries with corruption index < 30 according to Transparency International Corruption Index 2017	1 out of 27	2 out of 21	1 out of 21
	Number of lawsuits for corruption or anti-competitive behavior	0	0	0

GRI 416-1	Quality and product safety	2022	2021	2020
GRI 416-2	Assessment of the health and safety impacts of product and service categories	100 %	100 %	100 %
	Incidents of non-compliance concerning the health and safety impacts of products and services	0	N/A	N/A
	ISO-9001-certified production sites	72 out of 72	46 out of 50	49 out of 50 ²⁾
	Production sites ¹⁾ certified according to food safety or hygiene (BRC, ISO 22000, EN 15593, ECMA GMP, HACCP)	36 out of 72	31 out of 50	33 out of 50 ²⁾

¹⁾ including all plants acquired in 2022 for the entire financial year 2022; excluding sold sites in Russia

²⁾ excluding MM FollaCell and Hirschwang mills

GRI CONTENT INDEX IN ACCORDANCE

Statement of use	Mayr-Melnhof Karton AG has reported in accordance with the GRI Standards for the period 01.01.2022 to 31.12.2022.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI industry standard(s)	Not applicable

GRI Standard	Disclosure	Location	Omission	Explanation
General Disclosures				
<i>GRI 2: General Disclosures 2021</i>	2-1 Organizational details	40 ¹⁾ , 149		
	2-2 Entities included in the organization's sustainability reporting	149, 252-257 ¹⁾ ,		
	2-3 Reporting period, frequency and contact point	149-150		
	2-4 Restatements of information	91, 116, 151, 156		
	2-5 External assurance	168-170		
	2-6 Activities, value chain and other business relationships	14-15 ¹⁾ , 90-92, 100, 146-148, 149		
	2-7 employees	130-132, 159-160	2-7-b-iii	Currently, there are no employees of this category at our production sites (not applicable).
	2-8 workers who are not employees	134		
	2-9 Governance structure and composition	44-47 ¹⁾ , 50 ¹⁾ , 102		
	2-10 Nomination and selection of the highest governance body	45-46 ¹⁾ , 50 ¹⁾ , 104		
	2-11 Chair of the highest governance body	46-47 ¹⁾		
	2-12 Role of the highest governance body in overseeing the management of impacts	102		
	2-13 Delegation of responsibility for managing impacts	44 ¹⁾ , 50 ¹⁾ , 102		
	2-14 Role of the highest governance body in sustainability reporting	52-53 ¹⁾ , 102		
	2-15 Conflicts of interest	43 ¹⁾ , 45-47 ¹⁾ , 251 ¹⁾		
	2-16 Communication of critical concerns	52-53 ¹⁾ , 143		
	2-17 Collective knowledge of the highest governance body	102		
	2-18 Evaluation of the performance of the highest governance body	46 ¹⁾	2-18-a	Currently there is no procedure for the Supervisory Board, consequently there is no action in response to the assessment. However, an implementation is being planned (information not available).
	2-19 Remuneration policies	3-4 ²⁾ , 5 ²⁾ , 7 ²⁾	2-19-a-iv	As stated in the Remuneration Report (page 10), there was no clawback claim in 2022 (not applicable).
	2-20 Process to determine remuneration	1-3 ²⁾ , HP ³⁾	2-20-a-iii	There are no remuneration consultants involved (not applicable).
	2-21 Annual total compensation ratio		2-21-a, b	Currently, the median cannot be collected. However, an implementation of this data query is being planned (information not available).

2-22 Statement on the sustainable development strategy	10-13 ¹⁾		
2-23 Policy commitments	90, 101, 133, 142, 146		
2-24 Embedding policy commitments	101-102, 134- 135, 142		
2-25 Processes to remediate negative impacts	103, 145		
2-26 Mechanisms for seeking advice and raising concerns	143		
2-27 Compliance with laws and regulations	143, 144, 161		
2-28 Membership associations	90, 147, 149		
2-29 Approach to stakeholder engagement	103		
2-30 Collective bargaining agreements	134		

¹⁾This information can be found in the Annual Report outside the chapter "Consolidated Non-financial Report".

²⁾This information can be found in the Remuneration Report outside the chapter "Consolidated Non-financial Report".

³⁾This information can be found on the homepage: <https://www.mn.group/en/for-investors/ordinary-shareholders-meeting/>

GRI Standard	Disclosure	Location	Omission	Explanation
Material Topics				
GRI 3: Material Topics 2021	3-1 Process to determine material topics	105, 149		
	3-2 List of material topics	105-107, 110-111		
Procurement practices				
GRI 3: Material Topics 2021	3-3 Management of material topics	106-107, 120-121		
GRI 202: Procurement practices 2016	204-1 Proportion of spending on local suppliers	121, 123, 156		
Anti-corruption				
GRI 3: Material Topics 2021	3-3 Management of material topics	106-107, 142-143		
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption		205-1-a, b	Not a material topic (not applicable)
	205-2 Communication and training about anti-corruption policies and procedures		205-2-a to e	
	205-3 Confirmed incidents of corruption and actions taken	144, 161		
Anti-competitive behavior				
GRI 3: Material Topics 2021	3-3 Management of material topics	106-107, 142-143		
GRI 206: Anti-competitive Behavior 2016	206-1: Legal actions for anti-competitive behavior, anti-trust and monopoly practices	142, 144, 161		

Materials

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 120-121		
<i>GRI 301: Materials 2016</i>	301-1 Materials used by weight or volume	123, 156		
	301-2 Recycled input materials used	123, 156		
	301-3: Reclaimed products and their packaging materials		301-3-a, b	It is not possible to determine in which country our products are recycled, so no statement can be made regarding the percentage. Further surveys on this topic are being planned (information not available/incomplete).

Energy

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 117-118		
<i>GRI 302: Energy 2016</i>	302-1 Energy consumption within the organization	119, 155		
	302-2 Energy consumption outside the organization		302-2-a to c	Energy consumption outside the organization is included in our Scope 3 emissions and is currently not further separable (information not available).
	302-3 Energy intensity	119, 155		
	302-4 Reduction of energy consumption		302-4-a to d	At project level, the required level of detail is not given, as no comparative values are available (information not available/incomplete).
	302-5 Reductions in energy requirements of products and services		302-5-a to c	At product and service level, the required level of detail is not given, as no comparative values are available (information not available/incomplete).

Water and Effluents

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 124-125		
<i>GRI 303: Water and Effluents 2018</i>	303-1 Interactions with water as a shared resource	123-125		
	303-2 Management of water discharge-related impacts	123-125		
	303-3 Water withdrawal	125, 158	303-3-c	The values for the breakdown by Total Dissolved Solids are missing, but a future integration is being planned (information not available/incomplete).
	303-4 Water discharge	125, 158	303-4-b	
	303-5 Water consumption	125, 158		

Biodiversity

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 120-121		
<i>GRI 304: Biodiversity 2016</i>	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	121		
	304-2 Significant impacts of activities, products and services on biodiversity	121		
	304-3 Habitats protected or restored		304-3-a to d	Not applicable, as MM does not operate in a land-consumption-intensive industry (not applicable).
	304-4 (IUCN) Red List species and national conservation list species with habitats in areas affected by operations		304-4-a	

Emissions

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 117-118		
<i>GRI 305: Emissions 2016</i>	305-1 Direct (Scope 1) GHG emissions	119, 155		
	305-2 Energy indirect (Scope 2) GHG emissions	119, 155		
	305-3 Other indirect (Scope 3) GHG emissions	119, 155		
	305-4 GHG emissions intensity	119, 155		
	305-5 Reduction of GHG emissions		305-5-a to e	At project level, the required level of detail is not given, as no comparative values are available (information not available/incomplete).
	305-6 Emissions of ozone-depleting substances (ODS)		305-6-a to d	
	305-7 Nitrogen oxides (NO _x), Sulphur oxides (SO _x) and other significant air emissions		305-7-a to c	

Waste

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 120-121		
<i>GRI 306: Waste 2020</i>	306-1 Waste generation and significant waste-related impacts	121		
	306-2 Management of significant waste-related impacts	121		
	306-3 Waste generated	123, 157		
	306-4 Waste diverted from disposal	157		
	306-5 Waste directed to disposal	157		

Supplier Environmental Assessment

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 147		
<i>GRI 306: Supplier Environmental Assessment 2016</i>	308-1 New suppliers that were screened using environmental criteria		308-1-a	With the implementation of a supply chain risk management software, we expect an analysis of these topics for 2023 (information not available/incomplete).
	308-2 Negative environmental impacts in the supply chain and actions taken		308-2-a to e	

Occupational Health and Safety

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 135-136		
<i>GRI 403: Occupational Health and Safety 2018</i>	403-1 Occupational health and safety management system	135-137		
	403-2 Hazard identification, risk assessment and incident investigation	135-137		
	403-3 Occupational health services	135-137		
	403-4 Worker participation, consultation and communication on occupational health and safety	135-137		
	403-5 Worker training on occupational health and safety	135-137		
	403-6 Promotion of worker health	135-137		
	403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	135-137		
	403-8 Workers covered by an occupational health and safety management system	137, 161		
	403-9 Work-related injuries	137, 161		
	403-10: Work-related ill health		403-10-a to e	Due to the organization of the work processes and the ensured level of occupational safety, no industry-related illnesses are known (not applicable).

Training and Education

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 130-131		
<i>GRI 404: Training and Education 2016</i>	404-1 Average hours of training per year per employee	133, 160	404-1-ii	The information is only given by gender, not by employee category (information not available/incomplete).
	404-2 Programs for upgrading employee skills and transition assistance programs	133, 160		
	404-3 Percentage of employees receiving regular performance and career development reviews	160		

Non-discrimination

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 133		
<i>GRI 406: Non-discrimination 2016</i>	406-1 Incidents of discrimination and corrective actions taken	161		

Child Labor

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 133		
<i>GRI 408: Child Labor 2016</i>	408-1 Operations and suppliers at significant risk for incidents of child labor	135, 161		

Forced or Compulsory Labor

<i>GRI 3: Material Topics 2021</i>	3-3 Management der wesentlichen Themen	106-107, 133		
<i>GRI 409: Forced or Compulsory Labor 2016</i>	409-1 Operations and suppliers with significant risk for incidents of forced or compulsory labor	133		

Customer Health and Safety

<i>GRI 3: Material Topics 2021</i>	3-3 Management of material topics	106-107, 145		
<i>GRI 416: Customer Health and Safety 2016</i>	416-1 Assessment of the health and safety impacts of products and service categories	145, 146, 161		
	416-2 Incidents of non-compliance concerning the health safety impacts of products and services	146, 161		

TCFD CONTENT INDEX

The MM Group follows the framework of TCFD (Task Force on Climate-Related Financial Disclosures) in order to integrate climate-related risks and opportunities into the existing reporting structures in the best possible way. TCFD disclosures were used and assigned to the areas of “Governance”, “Strategy”, “Risk Management” and “Metrics and Targets”.

TCFD-Disclosure		Location
Governance	Description of how climate-related risks and opportunities are controlled by the board	101-102
	Description of the role of management in assessing and managing climate-related risks and opportunities	101-102
Strategy	Description of climate-related risks and opportunities identified by the organization in the short, medium and long term	99-100
	Description of the impact of climate-related risks and opportunities on the organization's business, strategy and financial planning	99-100
	Description of the resilience of the organization's strategy, taking into account different climate-related scenarios, including a scenario with a temperature increase of 2°C or less	99-100
Risk Management	Description of the processes for how the organization identifies and assesses climate-related risks	76 ¹⁾ , 99-100
	Description of the processes how the organization deals with climate-related risks	76 ¹⁾ , 116-119
	Description of how processes for identifying, assessing and addressing climate-related risks are integrated into the organization's overall risk management	76 ¹⁾ , 105-111
Metrics and Targets	Disclosure of metrics used by the organization to assess climate-related risks and opportunities in accordance with its strategy and risk management process	105-111
	Disclosure of Scope 1, Scope 2 and, where applicable, Scope 3 greenhouse gas emissions and associated risks	116-119
	Description of the objectives (and their implementation) set by the organization to address climate-related risks and opportunities	105-111

¹⁾ This information can be found in the annual report outside the chapter “Consolidated Non-financial Report”.

INDEPENDENT LIMITED ASSURANCE REPORT

We performed a limited assurance engagement of the consolidated non-financial report pursuant to section 267a UGB (Austrian Company Code) (hereinafter the “consolidated non-financial report”) of Mayr-Melnhof Karton Aktiengesellschaft (the “Company”), Vienna, for the financial year 2022. GRI 2-5

Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Company’s non-financial report is not prepared, in all material aspects, in accordance with the requirements of section 267a UGB and the “EU Taxonomy Regulation” (Regulation (EU) No. 2020/852) as well as the GRI Standards 2021.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Responsibility of Management and Supervisory Board

Management is responsible for the preparation of the non-financial report in accordance with the requirements of section 267a UGB and the “EU Taxonomy Regulation” (Regulation (EU) No. 2020/852) as well as the GRI Standards 2021.

Management’s responsibility includes the selection and application of appropriate methods to prepare the non-financial reporting (in particular the selection of key issues) as well as making assumptions and estimates related to individual sustainability disclosures which are reasonable in the circumstances, and for such internal control as management determines is necessary to enable the preparation of a consolidated non-financial report that is free from material misstatement, whether due to fraud or error.

The Supervisory Board is responsible for examining the consolidated non-financial report.

Auditor’s Responsibility

Our responsibility is to express a limited assurance conclusion based on our procedures performed and evidence obtained as to whether anything has come to our attention that causes us to believe that the Company’s non-financial report is not prepared, in all material aspects, in accordance with the legal requirements of section 267a UGB and the “EU Taxonomy Regulation” (Regulation (EU) No. 2020/852) as well as the GRI Standards 2021.

We performed our engagement in accordance with the professional standards applicable in Austria with regard to other assurance engagements (KFS/PG 13) and with regard to selected issues in connection with the assurance of non-financial statements and non-financial reports pursuant to sections 243b UGB and 267a UGB as well as the expert opinion on assurance with regard to sustainability reports (KFS/PE 28) and the International Standards on Assurance Engagements (ISAE) 3000 (Revised) “Assurance engagements other than audits or reviews of historical financial information”. These standards require that we comply with our ethical requirements, including rules on independence, and that we plan and perform our procedures by considering the principle of materiality to be able to express a limited assurance conclusion based on the assurance obtained.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

The selection of the procedures lies in the sole discretion of the auditor and comprised, in particular, the following:

- Critical assessment of the Company's analysis of materiality considering the concerns of external stakeholders
- Analysis of risks regarding the essential non-financial matters / disclosures
- Updating the overview of the policies pursued by the Company, including due diligence processes implemented as well as the processes used to ensure an accurate presentation in the consolidated non-financial report
- Updating the understanding of reporting processes by interviewing the relevant employees and inspecting selected documentations
- Evaluating the reported disclosures by performing analytical procedures regarding non-financial performance indicators, interviewing relevant employees and inspecting selected documentations
- Examining the consolidated non-financial report regarding its completeness in accordance with the requirements of section 267a UGB as well as the GRI Standards 2021
- Critical appraisal of the disclosures in accordance with the requirements of the "EU Taxonomy Regulation" (Regulation (EU) No. 2020/852).
- Evaluating the overall presentation of the disclosures and non-financial information

The following is not part of our engagement:

- Examining the processes and internal controls particularly regarding their design, implementation and effectiveness
- Performing procedures at individual locations as well as measurements or individual evaluations to check the reliability and accuracy of data received
- Examining the prior-year figures, forward-looking information or data from external surveys
- Examining the correct transfer of data and references from the (consolidated) financial statements to the non-financial reporting; and
- Examining the information and disclosures on the website or further references on the internet

Neither an audit nor a review of financial statements is objective of our engagement. Furthermore, neither the disclosure and solution of criminal acts, as e.g. embezzlement or other kinds of fraud, and wrongful doings, nor the assessment of the effectiveness and profitability of the management are objectives of our engagement.

Restriction of use

Because our report is prepared solely for and on behalf of the client, it does not constitute a basis for any reliance on its contents by other third parties. Therefore, no claims of other third parties can be derived from it. Consequently, this report may not – be it in whole or in part – be transmitted to third parties without our express consent.

Vienna, March 13, 2023

PwC Wirtschaftsprüfung GmbH

Frédéric Vilain m. p.
Austrian Certified Public Accountant

We draw attention to the fact that the English translation of this report is presented for the convenience of the reader only and that the German wording is the only legally binding version.

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Consolidated Balance Sheets

(all amounts in thousands of EUR)

Notes

Dec. 31, 2022

Dec. 31, 2021

ASSETS

Property, plant and equipment	6	1,813,214	1,490,031
Intangible assets including goodwill	6	1,017,117	914,793
Investments accounted for using the equity method, securities and other financial assets	8	13,153	8,415
Deferred tax assets	9	40,793	46,763
Non-current assets		2,884,277	2,460,002
Inventories	10	730,086	477,263
Trade receivables	11	695,242	541,603
Income tax receivables	9	27,129	32,212
Prepaid expenses and other current assets	12	198,875	136,807
Cash and cash equivalents	31	280,063	359,546
Non-current assets held for sale		2,966	6,785
Current assets		1,934,361	1,554,216
TOTAL ASSETS		4,818,638	4,014,218

EQUITY AND LIABILITIES

Share capital	13	80,000	80,000
Additional paid-in capital	13	172,658	172,658
Retained earnings	13	1,961,929	1,687,923
Other reserves	13	(260,716)	(284,750)
Equity attributable to shareholders of the Company		1,953,871	1,655,831
Non-controlling (minority) interests	13	5,480	6,047
Total equity		1,959,351	1,661,878
Non-current financial liabilities	14	1,674,040	1,349,074
Provisions for non-current liabilities and charges	15	121,396	149,834
Deferred tax liabilities	9	93,950	70,486
Non-current liabilities		1,889,386	1,569,394
Current financial liabilities	14	87,549	74,003
Current tax liabilities	9	55,705	24,371
Trade liabilities	16	499,677	437,726
Deferred income and other current liabilities	17	296,703	198,628
Provisions for current liabilities and charges	18	30,267	48,218
Current liabilities		969,901	782,946
Total liabilities		2,859,287	2,352,340
TOTAL EQUITY AND LIABILITIES		4,818,638	4,014,218

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Income Statements

(all amounts in thousands of EUR except share and per share data)	Notes	2022	2021
Sales	19	4,682,060	3,069,714
Cost of sales	21	(3,554,745)	(2,413,557)
Gross margin		1,127,315	656,157
Other operating income	20	70,864	84,860
Selling and distribution expenses	21	(416,297)	(296,107)
Administrative expenses	21	(256,888)	(175,158)
Other operating expenses	5	(14,722)	(137)
Operating profit		510,272	269,615
Financial income	25	4,250	3,319
Financial expenses	26	(32,149)	(24,369)
Other financial result – net	27	(15,473)	(4,016)
Profit before tax		466,900	244,549
Income tax expense	9	(121,656)	(53,848)
Profit for the year		345,244	190,701
Attributable to:			
Shareholders of the Company		343,793	189,174
Non-controlling (minority) interests	13	1,451	1,527
Profit for the year		345,244	190,701
Earnings per share for profit attributable to the shareholders of the Company during the year:			
Average number of shares outstanding	28	20,000,000	20,000,000
Earnings per share	28	17.19	9.46

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Comprehensive Income Statements

(all amounts in thousands of EUR)	Notes	2022	2021
Profit for the year		345,244	190,701
Other comprehensive income:			
Actuarial valuation of defined benefit pension and severance obligations	13	32,883	(1,518)
Effect of income taxes	9	(7,730)	1,107
Total of items that will not be reclassified subsequently to the income statement		25,153	(411)
Currency translations ¹⁾	13	(5,469)	(11,497)
Recycling of currency translations	5	20,103	1,940
Cash flow hedge	7	(29,666)	0
Effect of income taxes	9	4,861	(1,154)
Total of items that will be reclassified subsequently to the income statement		(10,171)	(10,711)
Other comprehensive income (net)		14,982	(11,122)
Total comprehensive income		360,226	179,579
Attributable to:			
Shareholders of the Company		358,902	177,687
Non-controlling (minority) interests	13	1,324	1,892
Total comprehensive income		360,226	179,579

The accompanying notes are an integral part of these consolidated financial statements.
¹⁾ incl. hyperinflation adjustments of thous. EUR 22,709

Consolidated Statements of Changes in Equity

(all amounts in thousands of EUR)	Notes	Equity attributable to shareholders of the Company							Non-controlling (minority) interests	Total equity	
		Share capital	Additional paid-in capital	Retained earnings	Other comprehensive income						
					Currency translations	Actuarial gains and losses	Cash flow hedge	Other reserves	Total		
Balance at Jan. 1, 2021		80,000	172,658	1,564,165	(207,173)	(67,304)	0	(274,477)	1,542,346	4,752	1,547,098
Profit for the year		0	0	189,174	0	0	0	0	189,174	1,527	190,701
Other comprehensive income					(11,081)	(406)	0	(11,487)	(11,487)	365	(11,122)
Total comprehensive income		0	0	189,174	(11,081)	(406)	0	(11,487)	177,687	1,892	179,579
Reclassification of actuarial effects to retained earnings		0	0	(1,214)	0	1,214	0	1,214	0	0	0
Transactions with shareholders:											
Dividends paid	13	0	0	(64,000)	0	0	0	0	(64,000)	(1,220)	(65,220)
Change in majority interests		0	0	(202)	0	0	0	0	(202)	623	421
Balance at Dec. 31, 2021		80,000	172,658	1,687,923	(218,254)	(66,496)	0	(284,750)	1,655,831	6,047	1,661,878
Adjustments of the initial application IAS 29	3	0	0	0	8,925	0	0	8,925	8,925	0	8,925
Adjusted balance at Jan. 1, 2022		80,000	172,658	1,687,923	(209,329)	(66,496)	0	(275,825)	1,664,756	6,047	1,670,803
Profit for the year		0	0	343,793	0	0	0	0	343,793	1,451	345,244
Other comprehensive income		0	0	0	13,712 ¹⁾	25,130	(23,733)	15,109	15,109	(127)	14,982
Total comprehensive income		0	0	343,793	13,712	25,130	(23,733)	15,109	358,902	1,324	360,226
Transactions with shareholders:											
Dividends paid	13	0	0	(70,000)	0	0	0	0	(70,000)	(1,463)	(71,463)
Change in majority interests		0	0	213	0	0	0	0	213	(428)	(215)
Balance at Dec. 31, 2022		80,000	172,658	1,961,929	(195,617)	(41,366)	(23,733)	(260,716)	1,953,871	5,480	1,959,351

The accompanying notes are an integral part of these consolidated financial statements.
¹⁾ incl. hyperinflation adjustments of thous. EUR 22,709

Consolidated Cash Flow Statements

(all amounts in thousands of EUR)

	Notes	2022	2021
CASH FLOW FROM OPERATING ACTIVITIES:			
Profit for the year		345,244	190,701
Adjustments to reconcile profit for the year to net cash from operating activities excluding interest and taxes paid:			
Income tax expense	9	121,656	53,848
Depreciation and amortization of property, plant and equipment, and intangible assets	6	198,603	148,953
Impairment of property, plant and equipment, and intangible assets ¹⁾	6	21,046	2,395
Gains (losses) from disposals of property, plant and equipment, and intangible assets	20	628	(9,497)
Financial income	25	(4,250)	(3,319)
Financial expenses	26	32,149	24,369
Result from the disposal of subsidiaries	5	13,606	(46,175)
Share of profit (loss) of other investments	27	(408)	(606)
Result from hyperinflation adjustments	27	(353)	0
Result of associated companies and joint ventures	27	(1,376)	(720)
Other adjustments	31	(451)	(1,265)
Net cash from profit		726,094	358,684
Changes in working capital:			
Inventories	10	(251,921)	(57,357)
Trade receivables	11	(76,129)	(112,218)
Prepaid expenses and other current assets	12	(25,190)	(21,184)
Trade liabilities	16	11,857	145,700
Deferred income and other current liabilities	17	19,688	24,745
Provisions for current liabilities and charges	18	(17,568)	(1,577)
Changes in working capital		(339,263)	(21,891)
Cash flow from operating activities excluding interest and taxes paid		386,831	336,793
Income taxes paid		(87,093)	(66,973)
Net cash from operating activities		299,738	269,820
CASH FLOW FROM INVESTING ACTIVITIES:			
Proceeds from disposals of property, plant and equipment, and intangible assets		8,080	16,536
Payments for acquisition of property, plant and equipment, and intangible assets (incl. payments on account)	16	(329,388)	(248,430)
Proceeds from government grants		1,851	0
Payments for acquisition of companies or other business entities, net of cash and cash equivalents acquired (2022: thous. EUR 14,444; 2021: thous. EUR 67,747)	5	(384,806)	(811,825)
Proceeds from disposal of companies or other business entities, net of cash and cash equivalents disposed (2022: thous. EUR 6,725; 2021: thous. EUR 4,146)	5	127,275	148,467
Proceeds from disposals of securities and other financial assets		343	177
Payments for securities and other financial assets		(255)	(251)
Dividends received	27	408	606
Interest received		3,290	3,319
Other adjustments		(95)	0
Net cash from investing activities		(573,297)	(891,401)
CASH FLOW FROM FINANCING ACTIVITIES:			
Interest paid		(32,334)	(12,003)
Issuances of interest-bearing financial liabilities	31	543,589	1,225,114
Repayments of interest-bearing financial liabilities	31	(233,296)	(302,018)
Repayments of lease liabilities	31	(14,366)	(8,984)
Payments to non-controlling (minority) shareholders		(236)	0
Dividends paid to the shareholders of the Company	13	(70,000)	(64,000)
Dividends paid to non-controlling (minority) shareholders	13	(1,463)	(1,220)
Net cash from financing activities		191,894	836,889
Effect of exchange rate changes on cash and cash equivalents		2,182	(2,003)
Change in cash and cash equivalents		(79,483)	213,305
Cash and cash equivalents at the beginning of the year (in the consolidated balance sheet)		359,546	146,241
Cash and cash equivalents at the end of the year (in the consolidated balance sheet)		280,063	359,546

The accompanying notes are an integral part of these consolidated financial statements.

¹⁾ incl. non-current assets held for sale

Notes to the Consolidated Financial Statements

1 BASIC INFORMATION

The MM Group

Mayr-Melnhof Karton AG and its subsidiaries (“the Group”) are engaged in manufacturing and selling cartonboard, paper and folding cartons with a focus on Europe. The parent company of the Group is Mayr-Melnhof Karton AG, located at Brahmssplatz 6, 1040 Vienna, Austria. The shares of the Company are listed on the Vienna Stock Exchange.

Segment information

The Group is divided into two operating segments (see note 19): MM Board & Paper and MM Packaging. MM Board & Paper manufactures and markets numerous grades of cartonboard, focusing on coated cartonboard produced predominantly from recycled fibers as well as virgin fiber-based cartonboard. In addition, the division’s product range also includes kraft papers and uncoated fine papers. MM Packaging processes cartonboard into folding cartons, mainly for the food industry (e. g., cereals, dried foods, sugar, and baked products, high-end confectionery packaging) as well as other consumer goods industries (e. g., cosmetics, toiletries, detergents, household goods, tobacco products, toys and pharmaceuticals). Furthermore the product range of MM Packaging also comprises leaflets and labels.

Significant events affecting the Group’s financial situation and profitability

The Group’s financial situation and profitability are particularly affected by the changes in the consolidated companies, in particular the acquisitions of Eson Pac and Essentra Packaging and the sale of the Russian packaging plants. Furthermore, the acquisitions of MM Kotkamills and MM Kwidzyn in the previous year were only included in the consolidation circle during the year, which impairs comparability with the previous year’s figures. Another one-off effect in 2022 resulted from the restructuring measures at the Kolicovo site (see note 5).

2 PRINCIPLES OF PREPARING THE CONSOLIDATED FINANCIAL STATEMENTS

Basic accounting principles and declaration of compliance

The consolidated financial statements of Mayr-Melnhof Karton AG and its subsidiaries and notes thereto have been prepared according to section 245 a of the Austrian Commercial Code in accordance with International Financial Reporting Standards and their interpretations released by the International Accounting Standards Board “IASB” to be applied within the European Union. Additional requirements according to section 245 a paragraph 1 of the Austrian Commercial Code have been met.

The consolidated financial statements are prepared based on historical acquisition or manufacturing costs, except for certain positions that are described in the relevant notes (e. g., note 7 and 15).

The present consolidated financial statements comprise the period from January 1 till December 31, 2022 and have been signed by the Management Board and have been approved by the Supervisory Board on March 13, 2023.

The consolidated financial statements are reported in Euro. Unless stated otherwise, all amounts herein, except for share data and per share amounts, are specified in thousands of Euro.

Application of new and revised standards

During the preparation of the consolidated financial statements and notes thereto, relevant amendments to existing IAS and IFRS, as published in the Official Journal of the European Union no later than December 31, 2022 and with an effective date no later than this date, were taken into consideration:

Revised standards	Content	Effective
IFRS 3	References to the Conceptual Framework in IFRS	1. 1. 2022
IAS 16	Proceeds before Intended Use	1. 1. 2022
IAS 37	Onerous Contracts – Costs of Fulfilling a Contract	1. 1. 2022
	Annual Improvements to IFRS 2018 - 2020	1. 1. 2022

The revision of IFRS 3 explicitly refers to the IFRS framework of the year 2018, with an exception for the application of provisions and contingent liabilities in business combinations. This also relates to a new capitalization prohibition for contingent assets acquired in a business combination.

The amendments to IAS 16 refer to the recognition of proceeds and manufacturing costs in the production of goods while the tangible asset is being moved to its intended location. Previously, it was unclear whether those should be recognized directly or offset against acquisition or manufacturing costs. The amendment to the standard prohibits offsetting against acquisition or manufacturing costs; instead, proceeds and manufacturing costs are recognized directly in the income statement.

The amendments to IAS 37 specify the costs of fulfilling the contract, which hereby consist of the costs directly related to fulfilling the contract, such as direct labour and material costs. In addition, there is a clarification according to which any previous impairment extends to the assets used to fulfil the contract.

In addition, minor amendments and clarifications were made to IFRS 9, IFRS 16, IFRS 1 and IAS 41 as part of the annual improvements.

If applicable, the effective regulations were applied in the present consolidated financial statements. The above mentioned changes did not have any significant impact on the Group's financial situation and profitability.

Furthermore, the following new and revised standards were endorsed by the EU until December 31, 2022; their application is, however, not yet compulsory for the financial year 2022 and they have not yet been applied voluntarily:

New standards	Content	Effective
IFRS 17	Insurance contracts	1. 1. 2023
Revised standards	Content	Effective
IAS 1	Presentation of Financial Statements - Definition of Materiality	1. 1. 2023
IAS 8	Definition of Accounting Estimates	1. 1. 2023
IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction	1. 1. 2023
IFRS 17	Initial application of IFRS 17 and IFRS 9 – Comparative Disclosures	1. 1. 2023

Additionally, the following revised standards were published by IASB until December 31, 2022 but have not yet been endorsed by the EU:

Revised Standards	Content	Effective
IAS 1	Classification of Liabilities as Current or Non-current	1. 1. 2024
IFRS 16	Leases: Lease Liability in a Sale and Leaseback	1. 1. 2024

From today's point of view, the above mentioned new or revised standards are not expected to have any significant impact on the Group's financial situation and profitability.

3 ACCOUNTING PRINCIPLES

The significant accounting and recognition principles applied in the Group are explained in the corresponding note.

Consolidation principles and methods

The consolidated financial statements and notes thereto include Mayr-Melnhof Karton AG ("the Company") and its subsidiaries. These are all companies over which the Group has control. The Group has control when it is exposed to both positive and negative variable returns of its involvement in the entity and has an influence on the amount of these variable returns. Generally, an ownership of more than 50 % of voting shares provides an entity with control. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the Group controls another entity. The criteria whether the Group has control over another entity are reviewed even when the Group holds less than 50 % of voting rights. The Group has the majority of shares and voting rights in all of its controlled entities. There are no additional agreements which rule out control.

The subsidiaries, provided that they are not of subordinate importance for the presentation of the financial situation and profitability, are consolidated as of the date on which control is transferred to the Group. They are deconsolidated on the date on which such control ceases to exist or a subsidiary is deemed to be insignificant by the Group.

Changes in shareholdings of the Group which do not lead to a loss of control over the subsidiaries are presented only as equity transactions (change in majority interests) and therefore have no impact on the consolidated income statement.

When the Company loses control of a subsidiary, the deconsolidation gain or loss is recognized in profit or loss. This is calculated as the difference between

- the total amount of the fair value of the consideration received
- less carrying amount of net assets disposed of (incl. goodwill proportionately attributable to the respective CGU) plus the carrying amount of non-controlling (minority) interests.

On disposal of a foreign operation that results in a loss of control, of joint control or of significant influence, the cumulative amount recognized in the currency translation reserve at that date is reclassified to income statement as part of the result of deconsolidation.

Non-controlling (minority) interests represent the external shareholders' proportionate share in equity and total annual result in subsidiaries of the Group. These minority interests are presented separately within equity.

Any effects of intercompany transactions are entirely eliminated.

Currency translation

Assets including goodwill and liabilities of foreign subsidiaries with a functional currency other than the Euro are translated into Euro using the average exchange rates as of the balance sheet date. Revenues and expenses are translated using average exchange rates for the year. The annual average rates are calculated as the arithmetic mean of the individual closing rates at month-end, the exchange rate of December 31 of the last year always being taken as the first closing rate. Translation differences arising from the currency translation of assets and liabilities in comparison with the previous year are recognized directly in equity. Gains and losses resulting from foreign currency transactions are recognized in the income statement as incurred.

The transactions of the Company in currencies other than the functional currency are translated using the exchange rates on the date of transaction. Monetary items in foreign currency are translated using the exchange rates on the balance sheet date. Resulting exchange rate differences as well as effects of the realization are recognized in the income statement.

Translation differences arising in connection with monetary items that are part of a net investment in a foreign operation are initially reported as a separate component of equity and are recognized in the income statement only upon intentional repayment or disposal of the net investment.

The exchange rates of the relevant currencies of non-Euro participating countries used in preparing the consolidated financial statements and notes thereto were as follows:

Country:	Currency:	Exchange rate at Dec. 31, 2022	Exchange rate at Dec. 31, 2021	Annual average exchange rate 2022	Annual average exchange rate 2021
		1 EUR =	1 EUR =	1 EUR =	1 EUR =
Bulgaria	BGN	1.96	1.96	1.96	1.96
Canada	CAD	1.45	1.44	1.37	1.49
Chile	CLP	917	964	919	899
China	CNY	7.42	7.22	7.10	7.64
Colombia	COP	5,134	4,527	4,471	4,438
Czech Republic	CZK	24.12	24.86	24.56	25.69
Denmark	DKK	7.44	7.44	7.44	7.44
Great Britain	GBP	0.89	0.84	0.85	0.86
Hungary	HUF	401	369	390	358
Jordan	JOD	0.75	0.80	0.75	0.84
Norway	NOK	10.51	9.99	10.10	10.18
Philippines	PHP	59.55	57.51	57.34	58.43
Poland	PLN	4.69	4.60	4.68	4.58
Romania	RON	4.95	4.95	4.93	4.92
Russia	RUB	75.66	84.07	69.11	87.42
Sweden	SEK	11.12	10.25	10.62	10.15
Switzerland	CHF	0.98	1.03	1.00	1.08
Tunisia	TND	3.31	3.28	3.26	3.30
Türkiye	TRY	19.93	14.68	19.93	10.33
Ukraine	UAH	38.95	30.92	33.93	32.38
United States of America	USD	1.07	1.13	1.05	1.18
Vietnam	VND	25,207	25,864	24,741	27,213

As of January 1, 2022 effective, the Group adopted IAS 29 “Financial Reporting in Hyperinflationary Economies” for its subsidiaries in Türkiye whose functional currency had a cumulative inflation rate of more than 100 % over the last three years. As a result, the relevant non-monetary items in the consolidated balance sheet as of January 1, 2022 were no longer presented on a historical cost basis but adjusted for the effects of inflation in prior periods. In accordance with IAS 21 “The Effects of Changes in Foreign Exchange Rates”, the prior-year figures have not been adjusted for financial statements in non-hyperinflationary reporting currencies. The translation differences are recognized directly in other comprehensive income and accumulated in other reserves in equity.

The effects from the first-time application of IAS 29 “Financial Reporting in Hyperinflationary Economies” were recognized in the consolidated balance sheet as of January 1, 2022 and included in other reserves in the amount of thous. EUR 8,925. Adjustments from the consideration of the currency devaluation of the monetary balance sheet items of Turkish subsidiaries in the financial year 2022 are reflected in profit or loss and are included in the consolidated income statement in “Other financial result – net”. The Turkish consumer price index (TÜFE, 2005=100) published by the Turkish Statistical

Office (TURKSTAT) was used for this purpose. The value of the index applied at the reporting date was 1,128 and increased by 64 % compared to the previous year (January 1, 2022: 687).

For the year ended December 31, 2022, the adjustments from hyperinflation accounting resulted in an increase of total assets in the amount of thous. EUR 23,070. This mainly results from the indexation of property, plant and equipment (thous. EUR 21,891) and inventories (thous. EUR 1,063). On the liabilities side, equity increased by thous. EUR 18,666 and deferred tax liabilities by thous. EUR 4,404. In the income statement, there was in particular an increase in cost of materials and depreciation and amortization, which led to a negative effect on the operating profit in the amount of thous. EUR 13,209. In addition, a monetary gain in the amount of thous. EUR 353 was recognized, which is included in "Other financial result – net".

Business combinations

All new acquisitions of subsidiaries and businesses are accounted for using the acquisition method.

The acquisition costs of the transaction classified as a business correspond to the fair values of the assets transferred and liabilities received or taken over on the acquisition date (value of consideration transferred).

The identifiable assets acquired and liabilities assumed in the course of business combinations are measured at fair value at the acquisition date. Depending on the nature and materiality of the acquisition, land, buildings, and machines are basically valued based on independent external expert reports. Intangible assets are, according to their nature and due to the complexity of identifying the fair values, measured based on reports of independent external experts or internally, applying adequate valuation methods. Any non-controlling (minority) interests in the acquiree are recognized at the non-controlling (minority) interests' proportionate share in the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

Potential contingent considerations are measured at fair value at the acquisition date. Subsequent changes in contingent consideration classified as asset or liability are also measured at fair value, and the resulting profit or loss is recognized in the profit for the year.

The excess of the consideration transferred and the amount of the non-controlling (minority) interest in the acquiree over the fair value of identifiable net assets acquired shall be capitalized as goodwill. After repeated assessment, negative goodwill shall be recognized directly in the income statement.

Derivative financial instruments

The Group uses derivative financial instruments to hedge risks arising from its operating activities. Financial instruments are not held for the purpose of generating a profit from short-term fluctuations in market price.

Accounting for derivative financial instruments not designated as hedge accounting

Derivative financial instruments that are not designated as hedge accounting are classified as held for trading and recognized at fair value in accordance with IFRS 9. At the balance sheet date, the fair value of open derivatives is calculated as the present value of future cash flows using currency quotations. Any gain or loss resulting from the valuation is recognized in profit or loss.

Hedge accounting

In order to reflect the economic effects of risk management activities in the area of over-the-counter hedging of commodity prices in Finland, the MM Group applies the provisions of hedge accounting according to IFRS 9. At the inception of the hedge transaction, the MM Group documents the economic relationship between the hedging instrument and the hedged item, including the risk management objectives and the underlying business strategy for undertaking the hedge. The material terms of the payments from the hedged items and hedging instruments are generally identical or opposite (“critical terms match”). Derivatives are generally initially recognized at fair value on the date a derivative contract is entered into and are measured at fair value at the end of each reporting period. Depending on the fair value (positive or negative), derivative financial instruments are recognized as other receivables or other liabilities. In the case of hedge accounting for commodity price hedges in Finland, the derivative is not recognized at the designation date due to the unrealized day one gain, and the valuation effects at the balance sheet date are recognized in other comprehensive income (see note 7).

If a derivative is designated as a cash flow hedge, the effective portion of the changes in fair value is recognized in other comprehensive income and accumulated in the cash flow hedge reserve. The effective portion of changes in fair value recognized in other comprehensive income is limited to the cumulative change in the fair value of the hedged item (calculated on a present value basis) since the inception of the hedge. Any ineffective amount of change in the fair value of the derivative is recognized immediately in profit or loss.

4 DISCRETIONARY DECISIONS, ASSUMPTIONS, AND ESTIMATES

The consolidated financial statements and the notes thereto are prepared in accordance with generally accepted accounting and recognition standards of IFRS using estimates and assumptions for certain items which affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the balance sheet date as well as the reported amounts of revenues and expenses during the reporting period and the reported values at the balance sheet date. In the process of applying the Group’s accounting policies, management makes various judgments and actual values may ultimately differ from these assumptions and estimates. Estimates are obtained carefully and underlying assumptions are constantly monitored and prospectively recognized. These assumptions are based on past experience and other factors including expectations about future events that could have a financial impact on the Group and are applied appropriately under given circumstances.

The Group also assesses the aspects of accounting effects arising from the requirements of various stakeholders in connection with climate change.

In the course of hyperinflation accounting (IAS 29), the non-monetary balance sheet items have been adjusted using the Turkish Consumer Price Index (TÜFE, 2005=100) published by the Turkish Statistical Institute (TURKSTAT) (see note 3).

The consolidated financial statements and notes thereto include the following material items, the determination of whose carrying amounts is highly dependent on the underlying assumptions and estimates:

Useful life of non-current assets

Property, plant and equipment as well as acquired intangible assets are recognized at acquisition and manufacturing costs and are depreciated/amortized on a straight-line basis over their estimated useful lives. The estimation of useful lives is based on assumptions concerning wear and tear, aging, technical standards, contract periods, and changes in demand. Changes in these factors may result in a shorter useful life of an asset. Hence, the carrying amount would be depreciated/amortized over the remaining shorter useful life, resulting in higher annual depreciation/amortization expenses (see note 6).

Accounting of business combinations

As a consequence of company acquisitions a goodwill is reported in the consolidated balance sheet, or a negative difference (badwill) is recognized directly in the income statement after repeated assessment. As part of the initial consolidation of a company acquisition, all identifiable assets, liabilities, and contingent liabilities are recognized at fair value as of the effective acquisition date. The valuation of intangible assets in particular is based on the forecast of the total expected cash flows and strongly depends on the management's assumptions regarding future developments and the underlying developments of the discount rate to be applied (see note 5).

Impairment of assets

Goodwill is tested for impairment in the course of an annual impairment test. Furthermore, a recoverability evaluation of fixed assets is performed whenever events that have occurred or circumstances that have changed indicate that the carrying amount of an asset or a group of assets exceeds its recoverable amount. In the course of this impairment test, the evaluation of fixed assets is also based on budget, assessments of market or company-specific discount rates, expected growth rates, and EBITDA margin/cost development. The assumptions involved in these calculations may change and may lead to an impairment loss in future periods (see note 6).

Other intangible assets

The Group is obliged to redeem CO₂ emission rights for carbon dioxide emissions incurred during cartonboard and paper production.

These emission rights have partly been allocated free of charge to the Group within the European Union and Norway. If this allocation is not sufficient to cover the volume of CO₂ emissions caused by the respective facility, the Group acquires further certificates on the market.

CO₂ emission rights are recognized in accordance with IAS 38 "Intangible Assets" as intangible assets in "Prepaid expenses and other current assets", measured at cost if they are acquired in return for payment. If the rights have been allocated free of charge, they are measured at cost amounting to zero. If actual carbon dioxide emissions in the course of the reporting period exceed the amount of available emission rights at the balance sheet date, a provision for the missing certificates has to be accounted for, which is presented under the position "Provisions for current liabilities and charges" (see note 18).

Expenses from the use of emission rights acquired in return for payment as well as income from the sale of redundant emission rights are recorded in the income statement.

Income taxes

The Group operates in numerous countries and is therefore subject to a wide range of tax laws in numerous tax jurisdictions. Calculating global tax liabilities requires comprehensive assessments that may result in the actual outcome of such tax-related uncertainties differing from the original estimate and in impacts on tax liabilities and deferred taxes (see note 9).

Realization of deferred tax assets

Deferred taxes are calculated by applying the tax rates which are effective on the balance sheet date or have essentially been legally adopted and which are expected to be valid at the time of realization of a deferred tax asset or the settlement of a deferred tax liability as well as by evaluating the capacity of future taxable income. Future taxable results which differ from the assumptions may result in the fact that the realization of deferred tax assets becomes improbable, and a change in estimate of deferred tax assets for the respective assets has to be recorded (see note 9).

Duration of leases

The Group determines the duration of leases based on the non-cancellable base term of the lease as well as by including the period arising from an option to extend the lease. When assessing whether there is sufficient certainty that the option to extend or terminate the lease is exercised or not, discretionary decisions are made. All relevant factors representing an economic incentive are considered. These are scrutinized and re-evaluated as circumstances change, which can result in an adjustment of the lease term and thus in adjustments of the lease liability and the right-of-use asset. The relevant assumptions for determining the useful life of significant leased offices and warehouses with unlimited agreements were adopted according to strategic objectives, location and costs. The underlying discount rate used to calculate the present value also depends on the determination of the term. For each country, currency and term of the respective leases, a base interest rate is used, which is increased by a credit spread and a country risk premium (see note 14).

Provisions for pensions, severance payments, and anniversary bonuses

The actuarial calculation of obligations regarding pensions, severance payments, and anniversary bonuses is based on assumptions about discount rates, salary and pension adjustments, life expectancy, and retirement age. Additionally, the probable employee turnover depending on the years of service is used for assessing anniversary bonuses. Actual outcomes may be different from these assumptions due to changes in the economic environment and market conditions and, as a consequence, can result in a significant change in non-current provision as well as equity (see note 15).

Other provisions

The recognition and valuation of other provisions is based on the best possible estimation of probability of the future resources outflow as well as experience and known circumstances as of the balance sheet date. Therefore, the actual realized resources outflow can differ from the provision amount reported on the balance sheet date (see note 15 and 18).

In connection with the Group's activities, obligations for the demolition or dismantling of facilities and for land reclamation may arise. At the time an obligation incurs, it is fully provided for by recognizing the present value of future reclamation expenditures. An asset is recognized in the same amount as part of the carrying amount of the asset. The calculation of the obligation is based on best estimates. The compounding of the provisions results in an interest expense or income (in the case of a negative discounting interest rate) and increases or decreases the obligation at each balance sheet date until the facility dismantling. Provisions are recognized for other environmental risks and measures, if these obligations are probable and the amount of the obligation can be reasonably estimated.

Restructuring provisions are recognized in accordance with IAS 37, if a sufficiently detailed formal plan exists and the implementation of the restructuring measures has already begun or the plan has been communicated before the balance sheet date.

Financial instruments

In applying the accounting rules for hedge accounting according to IFRS 9, the pro rata resale of the hedged gas purchase volumes resulted in the elimination of the own-use exemption in the financial year 2022. For this reason, a hedging transaction was designated in this context ("cash flow hedge"), which was measured on the basis of the expected purchase volumes for underlying gas contracts in 2023 and the TTF future prices available at the designation date (see note 7).

5 CHANGES IN THE CONSOLIDATED COMPANIES AND OTHER SIGNIFICANT EVENTS

5.1 Changes in the consolidated companies in 2022

In April 2022, the MM Group acquired 100 % of the shares in Eson Pac, located in Veddige, Sweden, from the majority shareholder Nalka Invest AB as well as family and management minority shareholders.

Eson Pac produces and distributes high-quality secondary packaging solutions for the pharmaceutical industry. The company has three production sites in Sweden and one in Denmark, focusing on folding cartons, leaflets and labels.

The closing of the acquisition was completed on April 11, 2022. The preliminary purchase price amounts to thous. EUR 59,447, of which thous. EUR 52,066 were paid in cash on the closing date and the remaining amount was recognized as contingent purchase price liability of a maximum of thous. EUR 7,381, based on the current estimated EBITDA 2022 according to local law. The purchase price was financed by cash on hand.

The preliminary fair values of the acquired assets and liabilities according to IFRS at the acquisition date are as follows:

(in thousands of EUR)	Apr. 11, 2022
Property, plant and equipment	22,783
Intangible assets	17,716
Deferred tax assets	2,565
Inventories	3,934
Trade receivables	10,699
Prepaid expenses and other current assets	862
Cash and cash equivalents	915
Deferred tax liabilities	(5,490)
Provisions for non-current liabilities and charges	(457)
Financial liabilities	(12,100)
Trade liabilities	(4,758)
Prepaid expenses, other current liabilities and provisions	(5,606)
Net assets	31,063
Goodwill	28,383

The fair values of machinery and technical equipment were determined by an independent external expert using a market-based and cost-based approach based on replacement costs for comparable machinery. Real estate was measured at fair value by an independent external expert using the market-based or income-based approach, respectively, depending on available market data.

Intangible assets include, in particular, a customer relationship in an amount of thous. EUR 16,342, based on long-term customer relations and amortized over a useful life of 10 years.

For trade receivables amounting to thous. EUR 10,699 as well as prepaid expenses and other current assets in the amount of thous. EUR 862 the fair values correspond to the gross amounts. Due to the short-term nature of the receivables, the Group assumes that the future cash flows correspond to the fair value. The Group has not recognized any contingent consideration in the course of the transaction,

Financial liabilities mainly include liabilities from lease transactions accounted for in accordance with IFRS 16.

The remaining goodwill of thous. EUR 28,383 mainly reflects the expansion and strengthening of the market position in the pharmaceutical sector. Recognized goodwill is not deductible for tax purposes.

In the financial year 2022, acquisition-related costs amounting to thous. EUR 1,088 were recorded as expense and reported under administrative expenses in the consolidated income statement.

Sales and profit before tax from the time the business belonged to the Group and the division in the financial year 2022 amounted to thous. EUR 41,162 and thous. EUR 2,858, respectively. If the business combination had been concluded on January 1, 2022, Eson Pac would have additionally contributed approximately EUR 16 million to the Group's sales or approximately EUR 1.3 million to the Group's profit before tax.

The purchase price allocation has not yet been completed; however, no further significant changes are expected.

In October 2022, the division MM Packaging has successfully finalized the acquisition of Essentra Packaging which was agreed in June 2022, after receiving approval from all relevant competition authorities. The transaction comprises 100 % of the shares in ESNT Packaging & Securing Solutions Limited (UK) and 100 % of the shares in Essentra Packaging US Inc (US) as well as their affiliated companies.

Essentra Packaging has 21 manufacturing sites in 10 countries throughout Europe, US mainland and Puerto Rico, thus ideally complementing MM Packaging's current position in pharma packaging in the Nordics and France. Essentra Packaging employs about 3,500 people and reported sales of approx. GBP 370 million in 2021.

Through this acquisition, MM Packaging expands its folding cartons, leaflets and labels activities for the resilient and profitable Healthcare & Pharma market, creating an attractive platform for further growth. The aim is also to exploit attractive synergy and upside potential through the integration.

The closing of the acquisition was completed on October 2, 2022. The preliminary purchase price amounts to thous. EUR 325,135. In addition to a fixed base amount, the calculation is based on the net financial liabilities and the net current assets. On the closing date, thous. EUR 338,075 were paid in cash. The purchase price was financed by cash on hand as well as committed credit lines and facilities from banks.

The preliminary fair values of the acquired assets and liabilities according to IFRS at the acquisition date are as follows:

(in thousands of EUR)	Oct. 2, 2022
Property, plant and equipment	196,489
Intangible assets	22,716
Deferred tax assets	2,575
Inventories	52,672
Trade receivables	99,523
Prepaid expenses and other current assets	16,899
Cash and cash equivalents	13,458
Deferred tax liabilities	(23,891)
Provisions for non-current liabilities and charges	(12,011)
Financial liabilities	(21,842)
Trade liabilities	(68,848)
Prepaid expenses, other current liabilities and provisions	(35,954)
Net assets	241,786
Goodwill	83,349

The fair values of machinery and technical equipment were determined by an independent external expert using a cost-based approach based on replacement costs and valorized acquisition costs for comparable machinery. Real estate was measured at fair value by independent external experts using the market-based or income-based approach, respectively, depending on available market data.

Intangible assets include customer relationships in an amount of thous. EUR 22,716, based on long-term customer relations and amortized over a useful life of up to 13 years.

Trade receivables comprise gross amounts of contractual receivables amounting to thous. EUR 101,216, of which thous. EUR 1,694 are estimated as presumably irrecoverable, resulting in a fair value of thous. EUR 99,523. For prepaid expenses and other current assets in the amount of thous. EUR 16,899, the fair values correspond to the gross amounts. Due to the short-term nature of the receivables, the Group assumes that the future cash flows correspond to the fair value. The Group has not recognized any contingent consideration in the course of the transaction.

The remaining goodwill of thous. EUR 83,349 mainly reflects the strengthening of MM's market position in the Healthcare & Pharma market as well as expected synergies from the diversification and expansion of the portfolio. Recognized goodwill is not deductible for tax purposes.

In the financial year 2022, acquisition-related costs amounting to thous. EUR 9,723 were recorded as expense and reported under administrative expenses in the consolidated income statement.

Sales and profit before tax from the time the business belonged to the Group and the division in financial year 2022 amounted to thous. EUR 126,545 and thous. EUR -7,795, respectively. If the business combination had been concluded on January 1, 2022, Essentra Packaging would have additionally contributed approximately EUR 373 million to the Group's sales or approximately EUR 4.5 million to the Group's profit before tax.

The purchase price allocation had not yet been fully completed as of the balance sheet date, as valuations, in particular with regard to acquired property, plant and equipment, have not yet been finalized.

In December 2022, the division MM Packaging has sold 100 % of its shares in the Russian sites OOO TANN Nevskiy, Pskov, MM Polygrafoformlenie Packaging LLC, St. Petersburg, und MM Polygrafoformlenie Rotogravure LLC, St. Petersburg to the local investor Granelle following approval by the governmental authorities. The selling price amounts to EUR 134 million. In 2021, the plants generated combined sales of approx. EUR 124 million. The sale is in line with MM's strategy to focus on new acquisitions and growth investments. In the course of the sale, a waiver of an intercompany loan in the amount of thous. EUR 9,652 was made.

The assets and liabilities transferred at the date of disposal are as follows:

(in thousands of EUR)	Dec. 15, 2022
Property, plant and equipment	(37,193)
Inventories	(43,804)
Trade receivables	(22,198)
Prepaid expenses and other current assets	(7,311)
Cash and cash equivalents	(6,522)
Deferred tax liabilities	119
Financial liabilities	9,350
Trade liabilities	18,472
Prepaid expenses, other current liabilities and provisions	4,072
Net assets	(85,015)

In addition to the disposal of net assets, an attributable customer relationship in the amount of thous. EUR 9,058 and attributable goodwill of the MM Packaging division in the amount of thous. EUR 23,415 were derecognized. Moreover, due to the reclassification of cumulative currency translation differences from other comprehensive income to the income statement, an expense in the amount of thous. EUR 19,222 was accounted for.

From these divestments a total expense before tax in the amount of thous. EUR 12,362 was recognized in the financial year 2022, which is presented under other operating expense. Furthermore, consulting and transaction costs of thous. EUR 4,157 were incurred and recognized as an expense in the course of the sale.

In addition, there were further insignificant effects resulting from changes in the consolidated companies.

In these financial statements, the purchase price allocations of the companies MM Kotkamills and MM Kwidzyn acquired in August 2021 were completed within the measurement period in accordance with the provisions of IFRS 3. The review of the preliminary purchase price allocation based on information obtained after the reporting date about the circumstances at the acquisition date did not lead to any adjustments with an impact on the consolidated balance sheet as of December 31, 2021.

5.2 Changes in the consolidated companies in 2021

In August 2021, the MM Board & Paper division acquired 100 % of the shares in Kotkamills Group Oyj (“Kotkamills”), located in Kotka, Finland. MM Kotkamills operates one of the most modern virgin fiber board machines in Europe (built 2016) as well as a Saturating Kraft Paper machine and a sawmill.

The acquisition strengthens MM’s position in the virgin fiber-based board market (FBB) with an attractive range of barrier board solutions that can replace PE (polyethylene)-coated board. In addition, MM enters the growing market for cartonboard for paper cups (cupstock). The acquisition complements MM’s established market position in recycled cartonboard. Furthermore, MM diversifies its product offering with Saturating Kraft Paper, in which Kotkamills is one of the leading producers worldwide. The medium-term goal is to increase the sales volume to the capacity of approximately 400,000 tons of cartonboard per year and exploit synergy potential.

The closing of the acquisition was completed on August 2, 2021. The purchase price paid in cash amounted to thous. EUR 203,097 and was financed by issuing Schuldschein loans and Namensschuldverschreibungen.

Furthermore, MM repaid a loan in the amount of thous. EUR 28,621 for Kotkamills on the closing date. In addition, the loans of the previous shareholders (in total thous. EUR 164,987) were taken over by MM.

The fair values of the acquired assets and liabilities according to IFRS at the acquisition date were as follows:

(in thousands of EUR)	Aug. 2, 2021
Property, plant and equipment	213,296
Intangible assets	39,371
Deferred tax assets	7,828
Inventories	38,548
Trade receivables	15,619
Prepaid expenses and other current assets	32,104
Cash and cash equivalents	29,195
Deferred tax liabilities	(11,317)
Provisions for non-current liabilities and charges	(1,342)
Financial liabilities	(210,582)
Trade liabilities	(44,650)
Prepaid expenses, other current liabilities and provisions	(32,066)
Net assets	76,004
Goodwill	127,093

The fair values of buildings, machinery and technical equipment were determined by an independent external expert using a cost-based approach based on replacement costs.

The fair values of land and land rights were determined using the comparison approach, assuming that they were vacant and available as of the valuation date.

Intangible assets included, in particular, a customer relationship in an amount of thous. EUR 39,057, based on long-term customer relations and amortized over a useful life of approximately 9 years.

The acquired CO₂ emission certificates were valued according to a market approach, resulting in other assets in the amount of thous. EUR 5,095, which were reported under the line item "Prepaid expenses and other current assets". At the same time, a provision in the amount of thous. EUR 8,408 was recognized for CO₂ emissions in 2021 until the acquisition date.

Trade receivables comprised gross amounts of contractual receivables amounting to thous. EUR 15,700, of which thous. EUR 81 were estimated as presumably irrecoverable, resulting in a fair value of thous. EUR 15,619. For prepaid expenses and other current assets in the amount of thous. EUR 27,009, the fair values corresponded to the gross amounts. Due to the short-term nature of the receivables, the Group assumed that the future cash flows correspond to the fair value. The Group has not recognized any contingent liabilities in the course of the transaction.

The remaining goodwill of thous. EUR 127,093 mainly reflects the strengthening of MM's market position in the virgin fiber-based cartonboard sector as well as expected synergies from the diversification and expansion of the portfolio. Recognized goodwill is not deductible for tax purposes.

Of the acquisition-related costs amounting to thous. EUR 7,377, thous. EUR 3,187 were recorded as expense in the financial year 2020 and thous. EUR 4,190 in the financial year 2021 and reported under administrative expenses in the consolidated income statement.

Sales and profit before tax from the time the business belonged to the Group and the division in the financial year 2021 amounted to thous. EUR 172,973 and thous. EUR 6,704, respectively. Profit before tax was impacted by a one-off effect of thous. EUR 1,342 resulting from the valuation of inventories performed in the course of the purchase price allocation and recognized in cost of sales. If the business combination had been concluded on January 1, 2021, Kotkamills would have additionally contributed approximately EUR 257 million to the Group's sales or approximately EUR 10 million to the Group's profit before tax.

In August 2021, the MM Board & Paper division acquired 100 % of the shares in International Paper (Poland) Holding Sp. z o. o (“Kwidzyn”) from International Paper. At the integrated pulp and paper site in Poland, Kwidzyn operates a pulp mill and four integrated cartonboard/paper machines.

The acquisition strengthens MM Board & Paper’s competitive position in the attractive market for high-quality virgin fiber-based cartonboard with innovative, sustainable qualities as well as more efficiency compared to the two market leaders and complement the established market position in recycled fiber-based cartonboard. The entry into new business areas and the integration of pulp and paper at one site additionally create new perspectives. The aim is also to use the advantageous cost position for further growth in Folding Box Board or other packaging grades and to exploit synergy potential.

The closing of the acquisition was completed on August 6, 2021. The purchase price paid in cash amounted to thous. EUR 676,475 and was financed by committed credit lines from banks and the issuance of Schuldschein loans and Namensschuldverschreibungen. In addition to a fixed base amount, the calculation was based on the net financial liabilities and the net current assets.

The fair values of the acquired assets and liabilities according to IFRS at the acquisition date were as follows:

(in thousands of EUR)	Aug. 6, 2021
Property, plant and equipment	267,268
Intangible assets	98,727
Deferred tax assets	12,688
Inventories	67,889
Trade receivables	40,415
Prepaid expenses and other current assets	9,467
Cash and cash equivalents	38,552
Non-controlling (minority) interests	(475)
Deferred tax liabilities	(40,036)
Provisions for non-current liabilities and charges	(19,992)
Financial liabilities	(25,444)
Trade liabilities	(53,543)
Prepaid expenses, other current liabilities and provisions	(29,221)
Net assets	366,295
Goodwill	310,180

Real estate was valued by external independent appraisers at fair value using either a market-based or income-based approach depending on available market data.

The fair values of assets related to cartonboard production were determined by an independent external appraiser using a cost-based approach based on replacement costs.

The intangible assets included, in particular, a customer relationship in an amount of thous. EUR 98,716, based on long-term customer relations and amortized over a useful life of up to 10 years.

Trade receivables included gross amounts of contractual receivables of thous. EUR 40,730, of which thous. EUR 315 were estimated as presumably irrecoverable, resulting in a fair value of thous. EUR 40,415. For prepaid expenses and other assets in the amount of thous. EUR 9,467, the fair values corresponded to the gross amounts. Due to the short-term nature of the receivables, the Group assumed that the future cash flows correspond to the fair value. The Group has not recognized any contingent liabilities in the course of the transaction.

In the course of the acquisition, a current provision in the amount of thous. EUR 13,496 was recognized for the amount representing CO₂ emissions in 2021 until the acquisition date and a non-current provision for environmental measures in the amount of thous. EUR 12,672 was recognized.

The non-controlling (minority) interests of thous. EUR 475 have been determined as a proportionate share of the identifiable net assets of the respective subsidiary.

The remaining goodwill of thous. EUR 310,180 mainly reflects the strengthening of MM's market position in the virgin fiber-based cartonboard sector as well as expected synergies from the diversification and expansion of the portfolio. Recognized goodwill is not deductible for tax purposes.

Of the acquisition-related costs amounting to thous. EUR 13,964, thous. EUR 343 were recorded as expense in the financial year 2020 and thous. EUR 13,621 in the financial year 2021 and reported under administrative expenses in the consolidated income statement.

Sales and profit before tax from the time the business belonged to the Group and the division in the financial year 2021 amounted to thous. EUR 242,365 and thous. EUR -1,323, respectively. Profit before tax was impacted by a one-off effect of thous. EUR 7,200 resulting from the valuation of inventories performed in the course of the purchase price allocation and recognized in cost of sales. If the business combination had been concluded on January 1, 2021, Kwidzyn would have additionally contributed approximately EUR 263 million to the Group's sales and approximately EUR 12 million to the Group's profit before tax.

In order to finance these acquisitions, Mayr-Melnhof Karton AG has taken out loans in the form of Schuldschein loans and Namensschuldverschreibungen (see note 14.1).

In August 2021, the MM Board & Paper division sold 100 % of the shares in the virgin fiber-based cartonboard mills Mayr-Melnhof Eerbeek B.V., Netherlands, and Baiersbronn Frischfaser Karton GmbH, Germany, to a subsidiary of funds managed by Oaktree Capital Management, L.P. for a purchase price of thous. EUR 110,501. In addition, the buyer settled the existing intercompany loan and cash pool liabilities in the amount of thous. EUR 41,749 to MM. The sale is in line with MM's strategy to focus on new acquisitions and growth investments.

From these disposals, a total income before tax in the amount of thous. EUR 55,545 was recognized in the financial year 2021, which was offset by disposal and subsequent costs of thous. EUR 9,370 (see note 20).

The assets and liabilities transferred at the date of disposal are were follows:

(in thousands of EUR)	Aug. 2, 2021
Property, plant and equipment	(80,046)
Intangible assets	(385)
Deferred tax assets	(3,542)
Inventories	(26,760)
Trade receivables	(29,840)
Prepaid expenses and other current assets	(3,386)
Cash and cash equivalents	(4,646)
Provisions for non-current liabilities and charges	10,438
Financial liabilities	1,200
Trade liabilities	25,748
Prepaid expenses, other current liabilities and provisions	56,263
Net assets	(54,956)

In addition, there were further insignificant changes in individual subsidiaries.

5.3 Other significant events in 2022

In the division MM Board & Paper, restructuring measures were decided at MM Kolicvevo d. o. o., Slovenia, in the financial year 2022. A comprehensive evaluation of the general conditions has shown that an economic continuation of production on the smaller cartonboard machine 2 (BM2) is not possible. The cartonboard machine was shut down at the beginning of November 2022. In mid-November, the MM Group completed the reorganization after the restructuring proposal and the social plan were accepted in cooperation with the social partners. In the course of the termination of production, an impairment of property, plant and equipment of the site in the amount of thous. EUR 12,970 was recognized. Furthermore, expenses for impairments of inventories and a social plan as well as subsequent costs were incurred. In total, expenses in the amount of thous. EUR 24,627 arose from the shutdown and were recognized in cost of sales.

In 2021, MM launched the most extensive investment program to date, comprising a large number of projects focusing on growth, cost efficiency and technological innovation at major competitive sites of both divisions. In 2022, these measures could already contribute to further organic growth in the Packaging division. In contrast, the largest investments to date in state-of-the-art technology, product development and sustainability will be implemented in 2023 in the division MM Board & Paper at the sites Frohnleiten, Neuss and Kolicvevo.

5.4 Other significant events in 2021

In 2021, the division MM Packaging has fully completed the closure of the Bielefeld site of MM Graphia Bielefeld GmbH due to necessary market-related structural adjustment measures. This mainly resulted in expenses for impairment of inventories and for the social plan, which impacted the Group's profit before tax in the amount of thous. EUR 20,111. Furthermore, carrying amounts of thous. EUR 5,076 were reclassified to "Non-current assets held for sale".

In addition, there were other restructuring measures in 2021 which were not of significance for the Group.

6 DEVELOPMENT OF FIXED ASSETS

6.1 Property, plant and equipment including leases

Property, plant and equipment

Property, plant and equipment are recognized at acquisition or manufacturing cost less accumulated depreciation and impairment. Depreciation expense is recognized applying the straight-line method over the following estimated useful lives:

Buildings	10 – 50 years
Technical equipment and machines	3 – 20 years
Other equipment, fixtures and fittings	3 – 20 years

The Group capitalizes significant renewal investments and leasehold improvements. Generally, costs resulting in a prolongation of utilization or in an increase in future utilization of assets are capitalized. Current costs of maintenance and repairs are recognized as expenses as incurred.

The costs of internally generated assets include the respective direct costs as well as attributable material and manufacturing overhead costs including depreciation.

Borrowing costs that are directly attributable to the acquisition, construction or manufacturing of a qualifying asset are capitalized as part of the cost of that asset. All other borrowing costs are recognized in profit or loss in the period in which they are incurred. In the financial year 2022, in the course of comprehensive investment measures in the division MM Board & Paper, interest on borrowings in the amount of thous. EUR 1,271 (2021: thous. EUR 0) were capitalized. For non-specific financing, a Group-wide interest rate of 2.0 % was applied.

Development of property, plant and equipment 2022

(in thousands of EUR)	Lands, similar land rights and buildings	Technical equipment and machines	Other equipment, fixtures and fittings	Construction in progress	Property, plant and equipment
ACQUISITION OR MANUFACTURING COSTS:					
Balance at Jan. 1, 2022	767,901	1,990,756	160,756	149,439	3,068,852
Adjustments of the initial application IAS 29	7,742	31,766	2,127	0	41,635
Adjusted balance at Jan. 1, 2022	775,643	2,022,522	162,883	149,439	3,110,487
Effect of exchange rate changes	(5,399)	(12,509)	225	(1,849)	(19,532)
Changes in consolidated companies acquired	99,603	127,756	3,521	0	230,880
Changes in consolidated companies disposed	(21,180)	(53,235)	(5,905)	0	(80,320)
Additions	22,358	105,688	17,356	189,000	334,402
Disposals	(7,575)	(30,210)	(6,707)	(40)	(44,532)
Hyperinflation adjustments	6,102	27,465	4,712	2	38,281
Reclassifications	20,392	49,100	12,739	(116,054)	(33,823)
Balance at Dec. 31, 2022	889,944	2,236,577	188,824	220,498	3,535,843
ACCUMULATED DEPRECIATION AND IMPAIRMENT:					
Balance at Jan. 1, 2022	287,689	1,170,366	119,569	1,197	1,578,821
Adjustments of the initial application IAS 29	3,039	26,843	1,666	0	31,548
Adjusted balance at Jan. 1, 2022	290,728	1,197,209	121,235	1,197	1,610,369
Effect of exchange rate changes	311	(4,649)	335	(2)	(4,005)
Changes in consolidated companies disposed	(11,659)	(26,544)	(4,922)	0	(43,125)
Disposals	(3,035)	(29,242)	(6,284)	0	(38,561)
Depreciation/amortization expense for the year	29,616	125,597	15,885	0	171,098
Impairments	2,918	10,256	1,709	3,168	18,051
Hyperinflation adjustments	2,150	17,413	3,858	0	23,421
Reclassifications	157	(13,573)	(1,203)	0	(14,619)
Balance at Dec. 31, 2022	311,186	1,276,467	130,613	4,363	1,722,629
NET BOOK VALUE:					
Net book value at Dec. 31, 2022	578,758	960,110	58,211	216,135	1,813,214
Net book value at Dec. 31, 2021	480,212	820,390	41,187	148,242	1,490,031

Development of property, plant and equipment 2021

(in thousands of EUR)	Lands, similar land rights and buildings	Technical equipment and machines	Other equipment, fixtures and fittings	Construction in progress	Property, plant and equipment
ACQUISITION OR MANUFACTURING COSTS:					
Balance at Jan. 1, 2021	666,801	1,818,669	186,049	74,552	2,746,071
Effect of exchange rate changes	1,101	(7,101)	(786)	328	(6,458)
Changes in consolidated companies acquired	138,100	325,486	5,722	11,257	480,565
Changes in consolidated companies disposed	(33,415)	(211,214)	(8,242)	(8,769)	(261,640)
Additions	15,264	72,233	9,074	151,225	247,796
Disposals	(20,609)	(46,957)	(14,970)	(35)	(82,571)
Reclassifications	659	39,640	(16,091)	(79,119)	(54,911)
Balance at Dec. 31, 2021	767,901	1,990,756	160,756	149,439	3,068,852
ACCUMULATED DEPRECIATION AND IMPAIRMENT:					
Balance at Jan. 1, 2021	312,301	1,292,788	143,303	1,207	1,749,599
Effect of exchange rate changes	738	(4,253)	(400)	0	(3,915)
Changes in consolidated companies disposed	(21,692)	(154,107)	(5,795)	0	(181,594)
Disposals	(17,988)	(46,457)	(12,373)	(10)	(76,828)
Depreciation/amortization expense for the year	23,881	97,062	13,184	0	134,127
Impairments	0	0	0	0	0
Reclassifications	(9,551)	(14,667)	(18,350)	0	(42,568)
Balance at Dec. 31, 2021	287,689	1,170,366	119,569	1,197	1,578,821
NET BOOK VALUE:					
Net book value at Dec. 31, 2021	480,212	820,390	41,187	148,242	1,490,031
Net book value at Dec. 31, 2020	354,500	525,881	42,746	73,345	996,472

Leases

The Group is a lessee of leases. The tables present additional information for the right-of-use assets by classes of underlying assets:

(in thousands of EUR)	Lands, similar land rights and buildings	Technical equipment and machines	Other equipment, fixtures and fittings	Property, plant and equipment
Balance at Jan. 1, 2022	75,126	8,535	1,617	85,278
Effect of exchange rate changes	(1,838)	(504)	(32)	(2,374)
Changes in consolidated companies acquired	22,013	9,099	188	31,300
Changes in consolidated companies disposed	0	0	0	0
Additions	9,004	2,218	64	11,286
Disposals	0	(322)	(1)	(323)
Depreciation/amortization expense for the year	(9,405)	(5,532)	(796)	(15,733)
Reclassifications	(50)	0	0	(50)
Balance at Dec. 31, 2022	94,850	13,494	1,040	109,384

(in thousands of EUR)	Lands, similar land rights and buildings	Technical equipment and machines	Other equipment, fixtures and fittings	Property, plant and equipment
Balance at Jan. 1, 2021	43,934	2,600	1,576	48,110
Effect of exchange rate changes	34	(138)	65	(39)
Changes in consolidated companies acquired	35,917	6,311	695	42,923
Changes in consolidated companies disposed	(659)	(604)	0	(1,263)
Additions	3,055	2,689	100	5,844
Disposals	(19)	(54)	(43)	(116)
Depreciation/amortization expense for the year	(7,169)	(2,236)	(943)	(10,348)
Reclassifications	33	(33)	167	167
Balance at Dec. 31, 2021	75,126	8,535	1,617	85,278

Disposals of right-of-use assets also include contract adjustments and changes in term assumptions.

6.2 Intangible assets including goodwill

Intangible assets acquired for valuable consideration which are determined to have a finite useful life are capitalized at acquisition cost and amortized on a straight-line basis over the following estimated useful lives:

Concessions, licenses and similar rights	5 – 10 years
Customer relationships and other intangible assets	5 – 21 years

Amortization of intangible assets is recognized based on the nature of the respective intangible assets in cost of sales, selling and distribution as well as administrative expenses.

Development of intangible assets including goodwill 2022

(in thousands of EUR)	Concessions, licenses and similar rights	Goodwill	Customer relationships and other intangible assets	Intangible assets including goodwill
ACQUISITION OR MANUFACTURING COSTS:				
Balance at Jan. 1, 2022	71,732	677,797	271,857	1,021,386
Adjustments of the initial application IAS 29	226	0	0	226
Adjusted balance at Jan. 1, 2022	71,958	677,797	271,857	1,021,612
Effect of exchange rate changes	(521)	(8,257)	(3,041)	(11,819)
Changes in consolidated companies acquired	896	111,732	39,529	152,157
Changes in consolidated companies disposed	0	(23,415)	(11,185)	(34,600)
Additions	3,147	0	0	3,147
Disposals	(5,762)	0	0	(5,762)
Hyperinflation adjustments	212	0	0	212
Reclassifications	20,544	0	0	20,544
Balance at Dec. 31, 2022	90,474	757,857	297,160	1,145,491
ACCUMULATED DEPRECIATION AND IMPAIRMENT:				
Balance at Jan. 1, 2022	53,544	9,038	44,011	106,593
Adjustments of the initial application IAS 29	180	0	0	180
Adjusted balance at Jan. 1, 2022	53,724	9,038	44,011	106,773
Effect of exchange rate changes	(418)	(2)	13	(407)
Changes in consolidated companies disposed	0	0	(2,127)	(2,127)
Disposals	(3,532)	0	0	(3,532)
Depreciation/amortization expense for the year	6,129	0	21,376	27,505
Impairments	4	0	0	4
Hyperinflation adjustments	167	0	0	167
Reclassifications	(9)	0	0	(9)
Balance at Dec. 31, 2022	56,065	9,036	63,273	128,374
NET BOOK VALUE:				
Net book value at Dec. 31, 2022	34,409	748,821	233,887	1,017,117
Net book value at Dec. 31, 2021	18,188	668,759	227,846	914,793

Development of intangible assets including goodwill 2021

(in thousands of EUR)	Concessions, licenses and similar rights	Goodwill	Customer relationships and other intangible assets	Intangible assets including goodwill
ACQUISITION OR MANUFACTURING COSTS:				
Balance at Jan. 1, 2021	67,296	243,508	139,648	450,452
Effect of exchange rate changes	(347)	(2,984)	(1,817)	(5,148)
Changes in consolidated companies acquired	304	437,273	137,793	575,370
Changes in consolidated companies disposed	(860)	0	0	(860)
Additions	4,517	0	0	4,517
Disposals	(6,492)	0	(3,784)	(10,276)
Reclassifications	7,314	0	17	7,331
Balance at Dec. 31, 2021	71,732	677,797	271,857	1,021,386
ACCUMULATED DEPRECIATION AND IMPAIRMENT:				
Balance at Jan. 1, 2021	57,646	9,040	37,419	104,105
Effect of exchange rate changes	(324)	(2)	(1,068)	(1,394)
Changes in consolidated companies disposed	(550)	0	0	(550)
Disposals	(6,490)	0	(3,784)	(10,274)
Depreciation/amortization expense for the year	3,399	0	11,427	14,826
Impairments	0	0	0	0
Reclassifications	(137)	0	17	(120)
Balance at Dec. 31, 2021	53,544	9,038	44,011	106,593
NET BOOK VALUE:				
Net book value at Dec. 31, 2021	18,188	668,759	227,846	914,793
Net book value at Dec. 31, 2020	9,650	234,468	102,229	346,347

In the financial year 2022, depreciation, amortization and impairment expenses recorded under “Property, plant and equipment” and “Intangible assets including goodwill” amounted to thous. EUR 216,658 (2021: thous. EUR 148,953). The amortization and impairment of the position “Intangible assets including goodwill” is recorded mainly for assets related to customer relationships and is included in selling and distribution expenses as well as for software licences which are recognized in cost of sales, selling and distribution as well as administration expenses.

There was no pledge right implied on the Group’s property to secure the liabilities.

6.3 Recoverability of non-current assets

A recoverability evaluation of non-current assets is performed as soon as events have occurred or circumstances have changed, indicating that the carrying amount of an asset or a group of assets could exceed its recoverable amount. In such a case, the carrying amount of the asset or the group of assets is compared to the higher of fair value less costs to sell or its present value of estimated future cash flows from use of the asset. The impairment loss resulting from the comparison of the carrying amounts with the recoverable amount is allocated proportionally to the assets based on the carrying amounts of each asset. The individual assets are not to be reduced below their fair value less costs to sell. If the reason for an impairment no longer exists, a reversal has to be conducted.

Property, plant and equipment and intangible assets with a finite useful life

Property, plant and equipment and intangible assets with a finite useful life are recognized at acquisition or manufacturing cost less accumulated depreciation and impairment and depreciated over their useful lives. Based on external and internal information sources, the Group monitors events and changed circumstances indicating that those assets could have been impaired (e. g., technical or physical obsolescence of assets or unscheduled downtimes as well as changed economic circumstances).

As soon as such events have occurred or circumstances have changed, the value in use is determined for the concerned cash generating unit based on the present value of estimated future cash flows (Free Cash Flows) before taxes using the discounted cash flow method. If and when necessary, external expert opinions for determining the fair value less costs to sell are additionally obtained. If, based on this procedure and these underlying assumptions, the recoverable amount (value in use or fair value less costs to sell) is lower than the respective book value of the group of assets, the difference is recorded as impairment.

Due to the geopolitical and economic situation in Europe in the financial year 2022 and the resulting sharp increase in capital costs for cash-generating units in various countries, the Group has performed an impairment test in which the increased raw material and energy prices as well as higher discount rates represent an indicator for potential impairment. Based on the information currently available, the Group does not expect any significant negative effects on the future detailed budget and cash flows of its cash-generating units and therefore there was no need for impairment.

In the course of the restructuring measures at the Kolicevo site, an impairment on property, plant and equipment of thous. EUR 12,970 was recognized in cost of sales (see note 5.3). Residual book values on buildings were fully depreciated, machinery to its fair value less costs to sell. In addition, at another cartonboard mill in Germany as well as at some packaging sites, impairments of individual machinery and equipment due to technical obsolescence and underutilization in the total amount of thous. EUR 5,085 occurred.

As in the previous year, impairments of thous. EUR 2,991 (2021: thous. EUR 2,395) had to be recognized at the Bielefeld and Hirschwang sites in connection with “non-current assets held for sale” as the fair value less costs to sell was reassessed.

Goodwill

Goodwill is recognized at acquisition cost and is not amortized but tested for impairment on an annual basis as of December 31 or when there is an indication that a significant impairment may exist.

Goodwill allocation

Goodwill within the Group is monitored at the level of the operating segments MM Board & Paper and MM Packaging (see note 19). The impairment test is carried out at this organizational level. Goodwill is allocated to the operating segments as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Goodwill MM Board & Paper	433,557	439,484
Goodwill MM Packaging	315,264	229,275
Goodwill Group	748,821	668,759

Any possible impairment will be recorded in the amount by which the book value of the respective operating segment including the respective goodwill assigned to this segment exceeds the recoverable amount. The recoverable amount is defined as the higher of value in use and fair value less cost to sell of the Group's respective cash generating units. For the impairment test, the respective recoverable amount is determined based on the calculation of value in use for each operating segment.

Calculation of value in use

Value in use is determined for the respective operating segment based on the present value of estimated future cash flows (Free Cash Flows) before taxes using the discounted cash flow method (DCF method) based on the following underlying assumptions (parameters):

Discount rate	The discount rate represents the weighted average cost of capital (WACC) of the Group before taxes, and, for the current financial year, it amounts to 11.59 % (2021: 9.46 %) for the segment MM Board & Paper and to 13.94 % (2021: 12.25 %) for the segment MM Packaging. Cost of equity is derived from a general risk premium for which the Group's specific risk premium is taken into consideration by applying the beta factor as well as country-specific risk indicators. The beta factor and cost of debt are derived from peer-group capital market information.
The detailed forecast period	The detailed forecast period is five years (2021: five years). The last planned year is also used for the cash flow calculation hereafter and modified using further assumptions for the terminal value.
Free Cash Flow	The free cash flows in the detailed forecast period are based on the estimates of the medium-term corporate planning of the two segments, which was approved by the Supervisory Board. This includes assumptions about volume and earnings developments which were derived from external forecasts, historical experience, and internal management projections of the market environment, such as material and selling prices, and internal input factors, such as investment and personnel planning.
Growth rate	For the free cash flows after the five year detailed forecast period a continuous growth rate of 1.5 % p. a. (2021: 1.5 % p. a.) including a retention rate is considered.
EBITDA margin/Cost development	Based on the expectation of the Company, a stable EBITDA margin and fixed cost development is assumed. Planned capital expenditures are offset by depreciation and amortization in an appropriate amount.

If, based on this procedure and these underlying assumptions, the recoverable amount (value in use) is determined to be lower than the respective book value of the cash generating operating segment including the respective goodwill assigned, the difference is recorded as impairment.

The Group has conducted its annual impairment test as of December 31, 2022 and December 31, 2021. Neither in 2022 nor in 2021 an impairment on goodwill was recognized on this basis.

Sensitivity of underlying assumptions

Regarding the underlying parameters for calculating the value in use, the above stated assumptions were met. From today's perspective, after due deliberation, no significant changes of one or more underlying assumptions used for determining the value in use of both operating segments are expected, which would result in the book value of the respective operating segments including goodwill assigned to this segment exceeding the recoverable amount in the following financial year.

The respective pre-tax discount rate according to which the value in use would equal the book value as of December 31, 2022 amounts to 12.92 % (December 31, 2021: 11.28 %) for the operating segment MM Board & Paper and to 15.56 % (December 31, 2021: 14.69 %) for the operating segment MM Packaging.

A decrease in free cash flows by 5.0 % points or in growth rate by 0.5 % points would not have led to any impairment, neither as of December 31, 2022 nor as of December 31, 2021, for both operating segments.

Further sensitivity analyses of reasonably possible changes in the underlying assumptions of the CGUs MM Board & Paper and MM Packaging included:

- 3 % price increase for fibers or 5 % increase in energy costs in the CGU MM Board & Paper.
- 3 % price increase for cartonboard or 5 % increase in energy costs in the CGU MM Packaging.

None of these sensitivity analyses resulted in the need for impairment.

As of December 31, 2022, the Group's market capitalization amounted to thous. EUR 3,024,000 (December 31, 2021: thous. EUR 3,532,000) and the book value of equity amounted to thous. EUR 1,959,351 (December 31, 2021: thous. EUR 1,661,878).

7 FINANCIAL INSTRUMENTS DISCLOSURES

7.1 Classification and measurement of financial instruments

Financial instruments comprise financial assets and financial liabilities and are recognized in different categories which determine the respective measurement method and thus also the resulting type of income and expense. Below, the financial instruments are assigned to the respective categories. Afterwards, the carrying amounts included in the balance sheet that correspond to the respective categories are presented. In conclusion, the income and expenses resulting from the different categories are shown.

Financial assets of the Group comprise securities, other financial assets, loans, trade receivables, other receivables and assets (except for certain positions which do not represent financial instruments, such as receivables regarding taxes and other charges), cash and cash equivalents as well as derivative financial instruments with a positive balance.

Financial assets are classified and measured as follows:

Category	Examples in MM Group
At amortized cost	Trade receivables, cash and cash equivalents
At fair value through other comprehensive income	-
At fair value through profit or loss	Derivatives

The categories of financial assets are explained in greater detail below.

A financial asset shall be measured at amortized cost if both of the following conditions are met:

- The financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows.
- The contractual terms of the financial asset give rise to cash flows on specified dates that are solely payments of principal and interest on the principal amount outstanding.

The Group classifies trade accounts receivable and all other financial receivables in this category. In addition, all cash and cash equivalents, such as fixed deposits, are classified in this measurement category.

A debt instrument that meets the following two conditions is measured at fair value through other comprehensive income (as items that will subsequently be reclassified to the income statement):

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets.
- On specified dates, the contractual terms of the financial asset give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The Group does not hold debt instruments that are measured at fair value through other comprehensive income.

A financial asset that is not measured at amortized cost or at fair value through other comprehensive income shall be valued at fair value through profit or loss. This includes, for example, debt instruments held which do not meet the two business model conditions (e. g., trading portfolio) and/or whose cash flows are not solely payments of principal and interest.

Investments in equity instruments (shareholdings) are basically measured at fair value through profit or loss, if, at their initial recognition, they are not irrevocably designated as at fair value through other comprehensive income, provided that they are not held for trading. However, in limited circumstances, cost may be an appropriate estimate of fair value for (non-listed) equity instruments. This may be the case if insufficient current information is available to measure fair value or if there is a wide range of possible fair value measurements and cost represents the best estimate of fair value within that range. In the Group, there are equity investments in unconsolidated companies. In general, these are to be measured at fair value. The acquisition costs, however, represent an appropriate estimate of fair value. Due to the minor importance of these entities, particularly with regard to their low business volume and their significance for the Group, fair value has not been calculated.

In the Group, derivative financial assets with a positive fair value and certain securities are classified as at fair value through profit or loss.

Recognition and derecognition

A regular purchase or sale of financial assets is recognized using the trade date, i. e., the day on which the Group commits itself to purchasing or selling the asset. Financial assets are derecognized when the rights for payment have been transferred or expired and the Group has transferred considerable risks and rewards associated with ownership.

Measurement

Financial assets classified in the category “at amortized cost” are initially measured at fair value plus transaction costs. At their initial recognition, trade receivables are measured at their transaction price, if they do not contain a significant financing component. In the Group, financial assets are not valued in accordance with the effective interest rate method, thus there is no result recorded from this method in the comprehensive income.

Financial assets classified as “at fair value through profit or loss” are first measured at their fair value; associated transaction costs are directly recognized in profit and loss.

In subsequent periods, financial assets are evaluated either at amortized costs or at their fair value through profit and loss.

Impairment

Financial assets are assessed at the end of each reporting period to determine whether an impairment exists. The impairment model of IFRS 9 is based on the premise of providing for expected losses. The Group has implemented a framework for determining simplified expected credit losses from trade receivables in accordance with IFRS 9, which provides reliable results by using suitable parameters based on historical defaults. A detailed description of the model can be found in this note under section c) under credit and default risk.

The Group considers the other financial assets as insignificant regarding potential impairment.

Financial liabilities of the Group comprise interest-bearing financial liabilities, lease liabilities, trade liabilities, other liabilities (except for certain positions which do not represent financial instruments, such as liabilities regarding taxes and other charges) as well as derivative financial liabilities with a negative balance.

Financial liabilities are classified and measured as follows:

Category	Examples in MM Group
At fair value through profit or loss	Derivatives, contingent purchase price liability
At fair value through other comprehensive income	Gas supply contracts (cash flow hedge)
At amortized cost	Financial liabilities, trade liabilities

Financial liabilities measured at fair value through profit and loss or through other comprehensive income (OCI) are initially recorded at their fair value, transaction costs are directly recognized in profit and loss. At their initial recognition, financial liabilities valued at amortized cost are measured at their fair value net of transaction costs.

In subsequent periods, financial liabilities are evaluated either at amortized costs, using the effective interest method, or at their fair value through profit and loss or through other comprehensive income.

The following table shows in which category financial assets included in the balance sheet are recognized respectively by which method these financial instruments are measured:

	At fair value through profit and loss	At amortized cost ²⁾	Total
Carrying amount at Dec. 31, 2022			
(in thousands of EUR)			
Securities and other financial assets ¹⁾	1,798	4,454	6,252
Trade receivables	0	695,242	695,242
Other receivables and assets incl. derivatives ³⁾	3,895	36,003	39,898
Cash and cash equivalents	0	280,063	280,063
Total	5,693	1,015,762	1,021,455
Carrying amount at Dec. 31, 2021			
Securities and other financial assets ¹⁾	1,840	905	2,745
Trade receivables	0	541,603	541,603
Other receivables and assets incl. derivatives ³⁾	4,441	15,304	19,745
Cash and cash equivalents	0	359,546	359,546
Total	6,281	917,358	923,639

¹⁾ For measurement of "other financial assets" classified as "at fair value through profit and loss", see note 7.5.

²⁾ The reported amounts regarding financial assets measured at amortized cost represent a proper approximation to the fair value.

³⁾ see note 12

The following table shows in which category financial liabilities included in the balance sheet are recognized and by which method these financial instruments are measured:

(in thousands of EUR)	At fair value through profit and loss	At fair value through OCI	At amortized cost ¹⁾	Total
Carrying amount at Dec. 31, 2022				
Interest-bearing financial liabilities	0	0	1,651,288	1,651,288
Lease liabilities	0	0	110,301	110,301
Trade liabilities	0	0	499,677	499,677
Other liabilities incl. derivatives ²⁾	9,890	29,666	33,632	73,188
Total	9,890	29,666	2,294,898	2,334,454
Carrying amount at Dec. 31, 2021				
Interest-bearing financial liabilities	0	0	1,338,312	1,338,312
Lease liabilities	0	0	84,765	84,765
Trade liabilities	0	0	437,726	437,726
Other liabilities incl. derivatives ²⁾	5,957	0	36,952	42,909
Total	5,957	0	1,897,755	1,903,712

¹⁾ The reported amounts regarding financial liabilities measured at amortized cost represent a proper approximation to the fair value. The fair value of fixed-interest financial liabilities can be found in note 14.1.

²⁾ incl. interest accruals from financial liabilities (see note 17)

The following table shows the types of income and expenses from financial assets assigned to categories and measurement methods, respectively:

(in thousands of EUR)	At fair value through profit and loss	At amortized cost	Total
Income and expense 2022			
In profit for the year	(205)	1,269	1,064
Interest/dividends received	408	4,250	4,658
Fair value/carrying amount changes	(613)	(2,981)	(3,594)
In other comprehensive income	0	0	0
Change in fair value	0	0	0
Net profit/loss	(205)	1,269	1,064
Income and expense 2021			
In profit for the year	2,364	2,474	4,838
Interest/dividends received	606	3,319	3,925
Fair value/carrying amount changes	1,758	(845)	913
In other comprehensive income	0	0	0
Change in fair value	0	0	0
Net profit/loss	2,364	2,474	4,838

The following table shows the types of income and expenses from financial liabilities assigned to categories and measurement methods, respectively:

(in thousands of EUR)	At fair value through profit and loss	At fair value through OCI	At amortized cost	Total
Income and expense 2022				
In profit for the year	3,449	0	(32,227)	(28,778)
Interest	0	0	(32,149)	(32,149)
Fair value/carrying amount changes	3,449	0	(78)	3,371
In other comprehensive income	0	(29,666)	0	(29,666)
Change in fair value ¹⁾	0	(29,666)	0	(29,666)
Net profit/loss	3,449	(29,666)	(32,227)	(58,444)
Income and expense 2021				
In profit for the year	(3,332)	0	(24,068)	(27,400)
Interest	0	0	(24,369)	(24,369)
Fair value/carrying amount changes	(3,332)	0	301	(3,031)
In other comprehensive income	0	0	0	0
Change in fair value	0	0	0	0
Net profit/loss	(3,332)	0	(24,068)	(27,400)

¹⁾ There is an unrealized day one gain of thous. EUR 63,427 in the context of hedge accounting.

7.2 Derivatives

The Group recognizes derivative financial instruments as financial assets or liabilities measured at their fair value. These hedging relationships established to secure cash flows or fair values related to single underlying transactions reduce the currency risk or procurement risk in the Group.

Thereby foreign exchange forward, swap and option contracts are used in order to mitigate the short-term effects of exchange rate fluctuations.

The most important foreign currencies for which the Group protects itself against fluctuation effects are the British Pound, the US Dollar as well as the Euro for the companies with functional currencies other than the Euro. The changes in market values of these derivatives are recognized in "Foreign currency exchange rate gains (losses) - net" (see note 27). The settlement of these transactions and the trade are generally executed by Corporate Treasury.

As of December 31, 2022, the Group had concluded foreign exchange forward and swap contracts with a nominal value of receivables of thous. EUR 506,421 (December 31, 2021: thous. EUR 357,917) and liabilities of thous. EUR 505,854 (December 31, 2021: thous. EUR 359,310) with a positive total market value of thous. EUR 1,471 (December 31, 2021: negative total market value of thous. EUR 1,516).

The derivative financial instruments related to forward exchange contracts are recorded in the consolidated balance sheet under “Prepaid expenses and other current assets” as current assets in the amount of thous. EUR 3,895 (December 31, 2021: thous. EUR 4,441) and under “Deferred income and other current liabilities” as current liabilities in the amount of thous. EUR 2,424 (December 31, 2021: thous. EUR 5,957).

In the financial year 2022, hedge accounting according to IFRS 9 was applied for the first time. MM Kotkamills in Finland was unable to consume the contractually hedged minimum purchase volumes of gas at fixed prices due to shutdowns, which resulted in a resale of the surplus and thus the elimination of the own-use exemption as of July 1, 2022. Therefore, in this context, a hedging transaction was designated as of July 1, 2022 (“cash flow hedge”), which was valued based on the expected purchase volumes for underlying gas contracts in 2023 and the TTF future prices available at the designation date. This resulted in an unrealized day one gain in the amount of thous. EUR 63,427, which serves as the measurement basis for the fair value.

As of December 31, 2022, the unadjusted fair value amounts to thous. EUR 33,761 based on the TTF future prices effective at the reporting date. Consequently, the Group recognizes the valuation effect in the amount of thous. EUR -29,666 in other comprehensive income, which is contrasted by a financial liability in the same amount. In this context, there were no significant ineffectivities.

7.3 Financial Risk Management

The Group is exposed to various financial risks arising from its operating activities and the structure of its financing. These financial risks include primarily credit risk, liquidity risk, currency risk, and risk of interest rate changes. These risks are limited using centralized risk management which is applied throughout the Group. The identification, analysis, and evaluation of financial risks as well as the decisions concerning the application of financial instruments to manage these risks are basically carried out by the Group’s headquarters.

Credit and default risk

Credit risk is the risk arising from a non-fulfilment of contractual obligations by business partners, which may result in losses. The immanent risk of default of business partners resulting from the underlying transaction is widely hedged in the Group by credit risk insurance, bank guarantees, and letters of credit. The criteria to be applied for credit ratings are based on contractual agreements with credit insurance institutions and are defined by internal guidelines.

Credit and default risks are continuously monitored; existing and identifiable risks are provided for by recording appropriate allowances or provisions. For the assessment of the overall risk, existing insurance coverage, possible guarantees, and letters of credit are taken into consideration. Financial instruments which may in certain cases cause a concentration of financial risks within the Group comprise primarily cash and cash equivalents and trade receivables. Trade receivables derive from a broad and diversified customer base with different credit ratings. The financial risk arising from customers is monitored by ongoing credit rating assessments. Additionally, the Group concludes credit insurance contracts in order to cover losses arising from certain potentially non-collectible receivables and goods that have already been produced.

Furthermore, the Group forms allowances based on the expected loss of the total volume of receivables. If trade accounts receivable are insured against default and if an allowance becomes necessary, only the amount not covered by insurance is to be recognized. The Group reports single or specific lump-sum allowances, respectively at Group level the expected credit loss model according to IFRS 9 is applied. The impairment model is based on the premise of providing for expected losses. The Group has implemented a framework for determining simplified expected credit losses from trade receivables in accordance with IFRS 9, which provides reliable results by using suitable parameters based on historical defaults. For the measurement, the Group applies a simplified approach using an allowance matrix which considers probability-weighted total credit losses ("life-time expected credit loss model"). The calculation of estimated expected credit losses is based on actual credit loss experiences over the past four years separately for the regions Europe, the Americas, as well as Asia and MENA. The inclusion of forward-looking information in the determination is taken into account by using CDS spreads for the calculation, as they reflect the future default risk. The Group considers the other financial assets as insignificant in view of a potential impairment.

As a result of the broad and diversified customer base and the existing credit insurance contracts, there is no concentrated risk of default. There are mainly trade receivables against customers with credit insurance and customers with very good creditworthiness; accordingly, bad debt losses were insignificant in the past.

The Group also uses foreign exchange forward, swap and option contracts. All the respective contract partners are renowned international financial institutions with which the Group has ongoing business relations. Therefore and due to the short-term maturities of these hedges, the Group considers the risk of non-fulfilment by a contract partner and the related risk of loss as low.

Money market investments are concluded with corporate banks with investment-grade ratings.

The carrying amounts of financial assets reflect the theoretical maximum default risk.

Liquidity risk

The liquidity risk is referred to as the risk of having to raise the required funds at any time in order to settle the amounts payable in due course. The Group's financing policy is oriented towards long-term financial planning and is managed centrally and monitored constantly. Based on well-timed liquidity management, sufficient liquidity of all the Group's subsidiaries is provided for by the availability of adequate cash and cash equivalents as well as unused credit lines available. The companies of the MM Group are financed mostly internally. Consequently, inter-company credit lines and a cash-pooling system with financial limits are available. Liquidity risk is thus assessed as low.

The following table shows the undiscounted future cash outflows arising from interest-bearing financial liabilities, lease liabilities, trade liabilities, payment obligations and payment entitlements arising from derivative financial instruments as well as interest for interest-bearing financial liabilities and lease liabilities based on the remaining maturity as of the balance sheet date or referred to the contractually agreed maturity.

(in thousands of EUR)	Up to 3 months	3 months up to 1 year	1 – 2 years	2 – 5 years	Over 5 years
Balance at Dec. 31, 2022					
Interest-bearing financial liabilities	0	70,288	149,125	330,125	1,101,750
Interest for interest-bearing financial liabilities	16,864	11,387	25,080	58,904	124,006
Lease liabilities	5,087	12,175	13,247	24,676	55,116
Interest for lease liabilities	942	2,660	3,104	7,066	12,202
Trade liabilities	486,495	12,812	0	370	0
Payment obligations from derivative financial instruments	499,068	6,786	0	0	0
Payment entitlements for derivative financial instruments	(499,421)	(7,000)	0	0	0
Balance at Dec. 31, 2021					
Interest-bearing financial liabilities	22,607	40,609	96	324,500	950,500
Interest for interest-bearing financial liabilities	14,577	6,285	20,734	58,224	98,838
Lease liabilities	3,466	7,321	9,444	14,468	50,066
Interest for lease liabilities	593	1,722	2,119	5,532	45,914
Trade liabilities	423,493	14,233	0	0	0
Payment obligations from derivative financial instruments	359,310	0	0	0	0
Payment entitlements for derivative financial instruments	(357,917)	0	0	0	0

The Group recognizes factoring transactions since the acquisition of MM Kotkamills in 2021. Thereby, trade receivables are transferred to a bank against cash and cash equivalents. The receivables are fully derecognized, as all opportunities and risks associated with the sold receivables are transferred. In addition to factoring, the Group has also entered into single supply chain financing agreements with customers in order to optimize liquidity in working capital management.

As of the balance sheet date, the Group records a financial liability in the amount of thous. EUR 29,666 as a result of the initial application of hedge accounting. As this financial derivative results in a day one gain of thous. EUR 63,427 and contrasts with the financial liability, it is assumed that there is no liquidity risk at this point in time.

Currency risk

Currency risk is the risk arising from changes in the value of financial instruments due to exchange rate fluctuations. This risk exists when business transactions are processed in currencies other than the functional (local) currency of the Company. This is particularly the case for business relations to customers and suppliers in the British Pound, the US Dollar and the Euro, from the perspective of companies which do not have the Euro as their functional currency. The respective currency risks are, as far as possible, reduced by matching business transactions in similar currencies and by price adjustment mechanisms in longer-term agreements as well as foreign exchange forward, swap and option contracts.

Provided that currencies related to current and non-current financial receivables and financial liabilities as of December 31, 2022 (December 31, 2021) stated below changed by the below-stated percentage ("volatility"), assuming that all other variables remained constant, the profit for the year and hence equity would have increased or decreased by the following values.

Currency	Volatility	Impact on profit for the year and equity in thousands of EUR	
		2022	2021
EUR ¹⁾	+/- 5 %	+/- 327	-/+ 1,565
GBP	+/- 5 %	- /+ 52	+ /- 194
USD	+/- 5 %	- /+ 257	- /+ 121

¹⁾ From the perspective of companies which do not have the Euro as functional currency.

Interest rate risk

The interest rate risk is referred to as the risk arising from changes in market interest rates which can result in a fluctuation of the values of balance sheet items or a fluctuation in cash flows. For balance sheet items with fixed interest, the risk consists mainly in fluctuations in value (price risk); when the market interest rate changes, the (present) value of financial instruments with fixed interest payments will also change. Due to these value fluctuations, profit or loss can arise; these are particularly realized when the financial instrument is sold before maturity. For balance sheet items with a variable interest rate, there is mainly the risk of fluctuating cash flows. In case the market interest rate changes, the amount of interest receivable or payable from financial instruments with variable interest payments will also change. Such changes would alter the ongoing interest payments and thus also interest income and expense. As of December 31, 2022, the Group is financed via financial liabilities with variable as well as fixed interest rates and holds almost only financial assets with variable interest rates.

If the interest rates as of December 31, 2022 (December 31, 2021) had been higher or lower by hundred basis points (i. e., 1 %), assuming that all other variables remained constant, the profit for the year and hence equity would have increased or decreased for the whole year as follows:

	Change in interest rate	Impact on profit for the year and equity in thousands of EUR	
		2022	2021
Financial assets with variable interest	+/- 1 %	+/- 519	+/- 531
Financial liabilities with variable interest	+/- 1 %	-/+ 5,313	-/+ 2,726

7.4 Capital management

Capital employed includes the equity of the Group and interest-bearing financial liabilities less cash and cash equivalents.

Capital management aims in particular at ensuring an equity to total assets ratio that is appropriate for the long-term economic development of the Group, taking into consideration a continuous dividend policy, as well as to ensure the necessary liquidity reserves

Equity and total assets as of December 31, 2022 and December 31, 2021 amounted to:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Total equity	1,959,351	1,661,878
Total assets	4,818,638	4,014,218
Equity ratio	40.7 %	41.4 %

The aim of capital management is an equity ratio ranging from 35 % to 50 %. The Company fulfils legal and statutory minimum capital requirements. Mayr-Melnhof Karton AG is subject to the minimum capital requirements of the Austrian Stock Corporation Act. The Articles of Association do not stipulate capital requirements.

Net debt is calculated as of December 31, 2022 and December 31, 2021 as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Cash and cash equivalents	280,063	359,546
Financial liabilities	(1,761,589)	(1,423,077)
Net debt	(1,481,526)	(1,063,531)

There are financial covenants partly agreed on with lenders for the interest-bearing financial liabilities. The financial covenants are mainly related to the equity ratio and the net debt to EBITDA ratio. Mayr-Melnhof Karton AG has complied with all of these clauses in the financial year.

7.5 Measurement at fair value

The amounts of financial assets and financial liabilities which are recognized at fair value are as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Financial assets:		
Derivative financial instruments (level 2)	3,895	4,441
Securities (level 1)	283	350
Financial liabilities:		
Derivative financial instruments (level 2)	2,424	5,957
Contingent purchase price liability (level 3)	7,466	0
Gas supply contracts (level 3) ¹⁾	29,666	0

¹⁾ There is an unrealized day one gain of thous. EUR 63,427 in the context of hedge accounting.

Measurement methods

The Group applies the following hierarchy to determine the measurement method and to identify the fair value of financial instruments, depending on the availability of information about market prices:

Availability of information, sorted by level	Measurement method used
Level 1 – Quoted market prices are available	Measurement based on quoted market prices for similar financial instruments
Level 2 – Quoted market prices for identical instruments are not available, but all necessary measurement inputs can be derived from active markets	Measurement based on measurement methods using directly or indirectly observable market data
Level 3 – There are no (derived) market prices available	Measurement based on valuation models by using input factors, which cannot be observed on the market

The fair value of securities (level 1 measurement) is determined based on the prices quoted on active markets.

The fair value of derivative financial instruments (level 2 measurement) is mostly determined on the basis of spot prices as of the balance sheet date, taking into account forward premiums or discounts with relevant maturity.

In addition, there are financial instruments measured at fair value based on parameters for which no observable market data exist (level 3 measurement). As part of the acquisition of Eson Pac, a contingent purchase price liability was recognized in the Group, the calculation of which is based on the current estimated EBITDA 2022 according to local law.

The valuation of the hedge of commodity price risks (“cash flow hedge”) is based on the expected purchase volumes (level 3 parameters) for underlying gas contracts in 2023 and the TTF future prices available at the valuation date. No significant variability in purchase volumes is expected.

As of December 31, 2022, other financial assets classified as “at fair value through profit or loss” include investments in unconsolidated companies in the amount of thous. EUR 1,515 (December 31, 2021: thous. EUR 1,490). In general, these must be measured at fair value. However, cost represents an appropriate estimate of fair value. Due to the minor importance of these entities, particularly with regard to their low business volume and their significance to the Group, fair value has not been calculated.

8 INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD, SECURITIES, AND OTHER FINANCIAL ASSETS

Investments in associated companies

Investments in associated companies in which the Group has the ability to exercise significant influence but no dominant control over their operating and financial policies are accounted for using the equity method and are primarily recognized at their acquisition costs. This is generally the case when the voting interest is between 20 % and 50 %. Additionally, the Group also has investments in associated companies which are not measured using the equity method. In general, these are to be measured at fair value. The acquisition costs, however, represent an appropriate estimate of the fair value or the amount is immaterial for the Group.

Investments in joint ventures

Investments in joint ventures are accounted for using the equity method and are primarily recognized at their acquisition costs. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Securities

The Group measures its securities mostly at fair value through profit and loss. Premiums and accretions of discount of debt securities are allocated over their maturity period and are included in the income statement under the positions “financial income” or “financial expenses”.

Securities are to be classified as non-current if they are not going to be sold or not intended to be sold within 12 months of the balance sheet date. Otherwise, they must be classified as current. Currently the Group does not hold any current securities.

Other financial assets

Other financial assets comprise other investments, loans, and other financial investments. Other investments are defined as part of the category “at fair value through profit and loss”. However, cost represents an appropriate estimate of the fair value and the amount is of low significance for the Group.

The carrying amounts of investments in associated companies and joint ventures, non-current securities, and other financial assets consist of:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Liability insurance not pledged to beneficiaries	4,156	784
Investments in joint ventures	3,597	3,173
Investments in associated companies	3,304	2,497
Other investments	1,515	1,490
Non-current securities	480	471
Other loans	101	0
Investments accounted for using the equity method, securities and other financial assets	13,153	8,415

As of December 31, 2022 non-current securities of the Group comprised investment funds and fixed-interest-bearing securities in the amount of thous. EUR 480 (December 31, 2021: thous. EUR 471).

The Group holds 45 % of shares in Société Tunisienne des Emballages Modernes (STEM), Tunis, Tunisia (see note 33). The shares in this company represent an individually immaterial associated company that is accounted for using the equity method.

The Group holds 40 % of shares in Zhejiang TF Special Papers Co., Ltd., Quzhou City, China (see note 33). Decisions on relevant activities must be made unanimously. The shares in this company thus represent a joint venture that is individually immaterial and accounted for using the equity method.

The following table summarizes the financial information:

(in thousands of EUR)	Investments in associated companies		Investments in joint ventures	
	2022	2021	2022	2021
Share of result for the year ¹⁾	842	491	534	229
Share of other comprehensive income ²⁾	(35)	23	(110)	307
Share of total comprehensive income	807	514	424	536
Total carrying amounts of the Group's shares	3,247	2,440	3,597	3,173

¹⁾ recognized in "other financial result - net"

²⁾ share of currency translations in the consolidated comprehensive income statement

9 INCOME TAXES

Income taxes are recognized in profit and loss unless they are associated with positions directly recognized in equity or other comprehensive income of total comprehensive income. In this case, income taxes are also recorded in equity or other comprehensive income of total comprehensive income.

Current tax expense of the period comprises current and deferred taxes and is recognized according to the tax regulations of the countries in which the subsidiaries are active and generate their taxable income.

Deferred tax assets and liabilities are recognized for all temporary differences between tax and the consolidated balance sheet. Deferred taxes are evaluated using the tax rates which are already in force on the balance sheet date or which have essentially been legally adopted and which are expected to be valid at the time of realization of a deferred tax asset or the settlement of a deferred tax liability. Deferred tax assets are recognized only if there is a probability that sufficient taxable profit will be available for the utilization of the deductible temporary differences. Unrecognized deferred tax entitlements are reassessed at every balance sheet date. If losses are incurred in the current period or have been incurred in the previous period, deferred tax assets are only recognized in case of objective evidence of a future taxable result, as, for example, through sufficiently positive planning calculations or following an internal reorganization of subsidiaries.

Deferred tax liabilities arising from temporary differences related to investments in subsidiaries, joint ventures and associated companies are recognized unless the Group is able to control the date of reversal and it is probable that these temporary differences will not be reversed in the foreseeable future due to this influence. This is the case for dividends within the Group that are subject to withholding tax or that are not covered by the international participation exemption, for example.

Deferred tax assets will be offset with deferred tax liabilities only if the entity has the legal right to settle on a net basis, if they are related to income taxes and if they are levied by the same tax authority on the same taxable entity or different taxable entities that intend to realize the asset and settle the liability at the same time. This applies, in particular, to subsidiaries that are part of the Austrian tax group or to entities of the MM Group that are part of a tax unity.

The effect of tax rate changes on deferred tax assets and liabilities is recognized as income tax expense or in the consolidated comprehensive income statement in the period of a tax rate change.

9.1 Deferred taxes recognized in the balance sheet

Deferred tax assets and liabilities due to temporary differences and tax loss carryforwards recognized in the balance sheet as of the balance sheet dates are as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Intangible assets	2,318	1,411
Property, plant and equipment	18,733	9,415
Inventories	15,832	11,582
Defined benefit plans and other liabilities and charges	16,298	24,908
Loans receivable, investments and securities	9,907	9,445
Loss carryforwards	18,051	10,187
Interest carryforwards	8,550	10,057
Financial liabilities	20,210	19,134
Trade and other liabilities	17,597	7,997
Other	8,862	4,173
Gross deferred tax assets	136,358	108,309
Unrecognized deferred tax assets	(19,580)	(5,054)
Net deferred tax assets	116,778	103,255
Offset	(75,985)	(56,492)
Deferred tax assets in the balance sheet	40,793	46,763
Intangible assets	(60,646)	(58,925)
Property, plant and equipment	(94,386)	(55,086)
Inventories	(1,002)	(811)
Defined benefit plans and other liabilities and charges	(7,329)	(5,612)
Trade and other liabilities	(2,808)	(3,380)
Other	(3,764)	(3,164)
Net deferred tax liabilities	(169,935)	(126,978)
Offset	75,985	56,492
Deferred tax liabilities in the balance sheet	(93,950)	(70,486)

The interest carryforwards result from previously unused interest expenses due to the interest barrier regulation in Finland. The unrecognized deferred tax assets in the amount of thous. EUR 19,580 (December 31, 2021: thous. EUR 5,054) comprise thous. EUR 10,268 (December 31, 2021: thous. EUR 4,661) of unrecognized loss carryforwards.

The following table shows the expected realization of deferred tax assets and liabilities:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Deferred tax assets, realized within 12 months	48,052	29,889
Deferred tax assets, realized after 12 months	68,726	73,366
Deferred tax assets	116,778	103,255
Deferred tax liabilities, realized within 12 months	(10,045)	(8,828)
Deferred tax liabilities, realized after 12 months	(159,890)	(118,150)
Deferred tax liabilities	(169,935)	(126,978)

Deferred tax liabilities which result from the difference between the tax carrying amount of investments and pro-rata equity (outside basis differences) were not recognized for certain subsidiaries and investments in joint ventures and associated companies, as it is probable that this temporary difference will not be dissolved in the near future. These retained earnings amounted to thous. EUR 1,469,097 at December 31, 2022 (December 31, 2021: thous. EUR 1,325,648). For retained earnings which are intended for distribution, the valuation of deferred tax liabilities was adjusted according to the applicable capital gains and withholding taxes on profit distribution.

The Group is exposed to various risks arising from its operating activities as well as from national and international regulations. After detailed analyses of potential risks, the Group assumes that due to the lack of predictability regarding the assessment by tax authorities in Austria and abroad, these uncertainties have been sufficiently covered at the time of preparing the financial statements.

9.2 Tax loss carryforwards

An overview of the Group's tax loss carryforwards as of the respective balance sheet dates is presented below:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Loss carryforwards with expiration	6,213	13,964
Loss carryforwards with no expiration	71,248	24,889
Loss carryforwards	77,461	38,853

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Recognized loss carryforwards	31,614	22,324
Unrecognized loss carryforwards	45,847	16,529
Loss carryforwards	77,461	38,853

The loss carryforwards limited in time will expire between 2024 and 2027, unless they are utilized before these dates.

The assessment of the recognition of loss carryforwards showed that for thous. EUR 31,614 (December 31, 2021: thous. EUR 22,324) deferred tax assets amounting to thous. EUR 7,780 (December 31, 2021: thous. EUR 5,524) were recognized. For the remaining amount of thous. EUR 45,847 (December 31, 2021: thous. EUR 16,529), deferred tax assets amounting to thous. EUR 10,268 (December 31, 2021: thous. EUR 4,661) were not recorded in the balance sheet. The expiry dates of these unrecognized loss carryforwards are as follows:

(in thousands of EUR)	2022	2021
1 year	0	2,126
2 years	0	1,544
3 years	0	2,422
4 years	1,188	1,003
5 years	708	1,597
After 5 years	0	3,376
No expiration	43,951	4,461
Total	45,847	16,529

9.3 “Income tax expense” recognized in the income statement

The position “income tax expense” is comprised the following:

(in thousands of EUR)	2022	2021
Current taxes:		
Current period	123,787	56,745
Due to utilization of previously unrecognized loss carryforwards	(4,432)	(1,939)
Prior periods	26	32
Deferred taxes:		
Due to temporary differences	1,511	(128)
Due to tax credits and interest carryforwards	1,147	(57)
Due to tax loss carryforwards of the current period	(968)	(1,538)
Due to utilization of recognized loss carryforwards	1,456	2,207
Due to tax loss carryforwards of previous periods and changes in recoverability	(806)	(966)
Due to changes in estimates of deferred tax assets	2,231	(420)
Due to tax rate changes	(2,296)	(88)
Income tax expense	121,656	53,848

9.4 Tax effects on “Other comprehensive income”

The basis for the amount of income taxes directly affecting other comprehensive income is the gain from actuarial effects from defined benefit plans, currency translations on net investments and the valuation of derivatives booked in 2022 amounting to thous. EUR 12,422 (2021: thous. EUR 4,457). Thereon income taxes amounting to thous. EUR -2,869 (2021: thous. EUR -47) were recognized for the financial year 2022. As a result, gains from actuarial effects from defined benefit plans, currency translations and hedging transactions after tax amounted to thous. EUR 9,553 (2021: thous. EUR 4,410).

9.5 Group tax rate

Reconciliation from the applicable tax rate which results from the geographical allocation of income and the applicable nominal tax rates of the respective tax jurisdictions to the effective tax rate which burdens the profit before tax is as follows:

(in thousands of EUR)	2022	2021
Profit before tax	466,900	244,549
Theoretical tax expense 25 %	116,725	61,137
Foreign tax rate adjustments	(5,244)	(2,536)
Non-deductible expenses and tax-free income	9,948	(12,492)
Unrecognized loss carryforwards of the financial year	2,957	505
Recognition of loss carryforwards of previous years	(1,146)	(941)
Utilization of unrecognized loss carryforwards	(4,432)	(1,939)
Changes of estimates of deferred tax assets	2,793	(420)
Capital gains and withholding tax	1,223	5,272
Tax rate changes	(2,296)	(88)
Non-periodic income tax expense or revenue (current and deferred)	178	3,773
Other effects	950	1,577
Income tax expense recognized	121,656	53,848
Effective tax rate	26.06 %	22.02 %

10 INVENTORIES

Inventories are valued at the lower of acquisition or manufacturing costs and the net realizable value. The net realizable value is based on expected selling prices and takes into consideration remaining costs of completion as well as estimated selling and distribution expenses. In order to determine purchase costs of raw materials, manufacturing and operating supplies as well as goods for resale, a weighted average price method, taking into consideration the sales market, is primarily applied in the division MM Board & Paper. In the packaging division, the purchase costs of raw materials, manufacturing and operating supplies as well as goods for resale are basically recognized using the actual sequence of consumption (specific identification method). The value of raw materials, manufacturing and operating supplies recognized in the balance sheet is based on data from physical stock-taking or from the inventory management system. The devaluation of raw materials, manufacturing and operating supplies depends on each individual case.

Work in process and finished goods consist of direct costs, such as material and labor costs, and material and production overheads as well as production-related administrative costs. Write-downs for slow moving and obsolete inventories are recognized considering the storage period and sales situation.

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Raw materials, manufacturing and operating supplies	437,325	300,446
Work in process	42,313	31,778
Finished goods and goods for resale	338,204	205,315
Total	817,842	537,539
Write-downs	(87,756)	(60,276)
Inventories – net	730,086	477,263

In the financial year 2022, write-downs of inventories recognized as an expense amounted to thous. EUR 31,204 (2021: thous. EUR 9,445) the reversal of write-downs of inventories recognized as income amounted to thous. EUR 2,640 (2021: thous. EUR 1,111), both under cost of goods sold. The carrying amount of inventories carried at net realizable value amounted to thous. EUR 30,447 (December 31, 2021: thous. EUR 28,692).

Cost of materials and purchased services recognized in cost of goods sold presented in the Group's income statement can be broken down as follows:

(in thousands of EUR)	2022	2021
Cost of materials	2,792,873	1,759,135
Cost of purchased services	69,211	39,495
Total	2,862,084	1,798,630

11 TRADE RECEIVABLES

Receivables are accounted for at amortized cost, i. e., at par value less allowances.

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Trade receivables	702,157	544,182
Allowances	(6,915)	(2,579)
Trade receivables – net	695,242	541,603

As of December 31, 2022 und December 31, 2021, the aging of trade receivables overdue but not impaired is as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Up to 30 days overdue	23,174	9,105
31 – 60 days overdue	11,433	6,140
61 – 365 days overdue	9,145	5,509
More than 365 days overdue	461	172
Total of trade receivables overdue but not impaired	44,213	20,926

For an explanation of the criteria which were considered for the determination of the allowances, please refer to the remarks on credit and default risk (see note 7).

Allowances for trade receivables developed as follows:

(in thousands of EUR)	2022	2021
Allowances at the beginning of the year	2,579	1,470
Effect of exchange rate changes	(140)	16
Changes in consolidated companies	1,694	391
Utilization	(199)	(143)
Reversal	(2,076)	(458)
Increase	5,057	1,303
Allowances at the end of the year	6,915	2,579

12 PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses and other current assets are as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Value-added tax receivables	69,735	42,964
Payments on account of property, plant and equipment and inventory	41,643	19,163
Prepaid expenses	29,254	25,267
Other tax receivables	8,764	14,879
Derivative assets	3,895	4,441
Other receivables and other assets	45,584	30,093
Prepaid expenses and other current assets	198,875	136,807
Thereof financial assets	39,898	19,745
Thereof non-financial assets	158,977	117,062

The line item “Other receivables and other assets” mainly includes the overpayment of the purchase price of Essentra Packaging, assets from purchased CO₂ emission certificates, receivables from investment grants as well as from factoring transactions.

13 EQUITY

13.1 Share capital/additional paid-in capital

Ordinary shares are classified as equity.

As in the previous year, the fully-paid share capital of the Company amounts to thous. EUR 80,000 and comprises 20,000,000 approved and issued no-par value shares. One no-par value share grants a calculated share of EUR 4.00 in share capital. Each share participates equally in equity and grants the same rights and responsibilities, especially the entitlement to resolved dividends and the voting right at the Ordinary Shareholder’s Meeting. There are neither any different share classes nor shares with special control rights.

Additional paid-in capital derives from the share premium raised at the capital increase in the course of the initial public offer in 1994 and the cancelation of treasury shares less the increase of share capital by conversion of additional paid-in capital in 2008 and 2010, representing the amount of the tied capital reserve.

13.2 Retained earnings/dividend

Retained earnings comprise accumulated results from previous years.

Under the Austrian Stock Corporation Act, the amount of dividend available for distribution to shareholders is based on the unappropriated retained earnings from the annual financial statements of Mayr-Melnhof Karton AG, determined in accordance with the Austrian Commercial Code. As of December 31, 2022, the distributable unappropriated retained earnings amounted to thous. EUR 150,000 (December 31, 2021: thous. EUR 130,000).

Extract from the individual financial statements of Mayr-Melnhof Karton AG

(in thousands of EUR)	2022	2021
Unappropriated retained earnings at Jan. 1	130,000	130,000
Net profit of the Company for the year ended Dec. 31	293,827	101,181
Changes in reserves	(203,827)	(37,181)
Dividend paid	(70,000)	(64,000)
Unappropriated retained earnings at Dec. 31	150,000	130,000

For the year ended December 31, 2022, the Management Board has proposed to the Supervisory Board and subsequently to the Shareholders' Meeting a dividend of EUR 4.20 per voting share after EUR 3.50 for 2021, resulting in a dividend of thous. EUR 84,000 as of the balance sheet date of 2022. The dividend for 2021, amounting to thous. EUR 70,000, was paid out according to schedule on May 11, 2022 (see consolidated statement of changes in equity).

13.3 Non-controlling (minority) interests

Non-controlling (minority) interests comprise the interest in equity and total profit for the year attributable to external shareholders' investments in subsidiaries of Mayr-Melnhof Karton AG. The non-controlling (minority) interests as of the acquisition date are presented as part of net assets (equity) of the respective entity or businesses and are adjusted in the following period taking into consideration profit or loss attributable to the shareholders, dividend paid as well as paid-in or paid-out capital.

The summarized information about the subsidiaries in which the Group holds non-controlling (minority) interests is stated below. The disclosures correspond to the amounts before intra-group eliminations. Further information on these subsidiaries can be found in note 33.

(in thousands of EUR)	Dec. 31, 2022		Dec. 31, 2021	
	MM Board & Paper	MM Packaging	MM Board & Paper	MM Packaging
Non-current assets	4,456	17,614	3,007	51,616
Current assets	10,837	20,874	10,913	68,349
Non-current liabilities	1,136	74	1,363	21,257
Current liabilities	6,496	9,158	4,470	28,681
Net assets	7,661	29,256	8,087	70,027
Carrying amount of the non-controlling (minority) interests	1,144	4,336	1,504	4,543

	2022		2021	
	MM Board & Paper	MM Packaging	MM Board & Paper	MM Packaging
Sales	31,459	39,887	12,603	84,257
Profit for the year	1,166	6,640	2,091	16,394
Thereof attributable to non-controlling (minority) interests	206	1,245	498	1,029
Total comprehensive income	836	6,030	586	19,860
Thereof attributable to non-controlling (minority) interests	222	1,102	489	1,403
Dividend paid to non-controlling (minority) interests	454	1,009	105	1,115
Net change in cash and cash equivalents	(2,047)	3,794	2,110	8,709

13.4 Other comprehensive income of the consolidated comprehensive income statement

Other reserves comprise certain changes directly recognized in equity. These are in particular differences arising from currency translation including hyperinflation adjustments, actuarial gains and losses arising from the defined benefit pension and severance obligations as well as gains and losses arising from the valuation of derivatives. With the exception of currency translations, the other items take into account the related recoverable income taxes.

In 2022, profit and loss recognized in other comprehensive income consisted of currency translations with a negative amount of thous. EUR 5,469 (2021: negative amount of thous. EUR 11,497) as well as actuarial gains in the amount of thous. EUR 32,883 (2021: losses of thous. EUR 1,518). Furthermore, losses from cash flow hedge in the amount of thous. EUR 29,666 (2021: thous. EUR 0) were recognized in the cash flow hedge reserve. In the financial year 2022, income taxes in the amount of thous. EUR -2,869 (2021: thous. EUR -47) were recognized in other comprehensive income (see note 9.4).

14 FINANCIAL LIABILITIES AND LEASES

Financial liabilities comprise interest-bearing financial liabilities and lease liabilities and are recognized at amortized cost. This amount is calculated as initially paid out nominal value less redemptions plus accrued interest.

The financial liabilities of the Group are as follows:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Non-current interest-bearing financial liabilities	1,581,000	1,275,096
Non-current lease liabilities	93,040	73,978
Non-current financial liabilities	1,674,040	1,349,074
Current interest-bearing financial liabilities	70,288	63,216
Current lease liabilities	17,261	10,787
Current financial liabilities	87,549	74,003
Financial liabilities	1,761,589	1,423,077

14.1 Interest-bearing financial liabilities

As of December 31, 2022 and December 31, 2021, interest-bearing financial liabilities comprised liabilities against banks and insurance companies. These financial liabilities at current interest rates can be summarized as follows:

(in thousands of EUR)	Dec. 31, 2022
2.144 % EUR loan(s) due 2023	68,981
2.349 % EUR loan(s) due 2024	149,125
2.927 % EUR loan(s) due 2025	51,875
2.197 % EUR loan(s) due 2026	246,375
2.699 % EUR loan(s) due 2027	31,875
1.553 % EUR loan(s) due 2028	427,875
2.699 % EUR loan(s) due 2029	31,875
2.699 % EUR loan(s) due 2030	31,875
1.740 % EUR loan(s) due 2031	250,375
3.362 % EUR loan(s) due 2032	23,750
1.900 % EUR loan(s) due 2033	51,000
2.000 % EUR loan(s) due 2035	17,500
2.100 % EUR loan(s) due 2036	142,500
1.882 % EUR loan(s) due 2039	125,000
Used loan facilities	1,307
Interest-bearing financial liabilities	1,651,288
Thereof non-current interest-bearing financial liabilities	1,581,000
Thereof current interest-bearing financial liabilities	70,288

(in thousands of EUR)	Dec. 31, 2021
0.618 % EUR loan(s) due 2022	59,980
6.082 % CNY loan(s) due 2022	629
6.012 % CNY loan(s) due 2023	96
1.800 % EUR loan(s) due 2024	80,000
0.507 % EUR loan(s) due 2025	20,000
1.528 % EUR loan(s) due 2026	224,500
1.400 % EUR loan(s) due 2028	396,000
1.600 % EUR loan(s) due 2031	218,500
1.900 % EUR loan(s) due 2033	51,000
2.000 % EUR loan(s) due 2035	17,500
2.100 % EUR loan(s) due 2036	142,500
1.882 % EUR loan(s) due 2039	125,000
Used loan facilities	2,607
Interest-bearing financial liabilities	1,338,312
Thereof non-current interest-bearing financial liabilities	1,275,096
Thereof current interest-bearing financial liabilities	63,216

As of December 31, 2022, the weighted average interest rate for these financial liabilities was 2.004 % (December 31, 2021: 1.578 %).

As of December 31, 2022, the Group had available current interest-bearing loan facilities in the amount of thous. EUR 1,307 (December 31, 2021: thous. EUR 2,607), of which thous. EUR 1,307 (December 31, 2021: thous. EUR 2,607) had been used as of the balance sheet date. As of December 31, 2022, the weighted average interest rate of these current loans, used by foreign subsidiaries, was 10.400 % (December 31, 2021: 1.138 %). These loans are subject to common banking terms and conditions.

In the previous year, Mayr-Melnhof Karton AG issued Schuldschein loans and Namensschuldverschreibungen in the amount of thous. EUR 1,125,000, which are subject to both fixed and variable interest rates over terms of 5 to 18 years. These loans served primarily to finance the acquisitions of Kotkamills, Finland, and Kwidzyn, Poland.

Of the interest-bearing financial liabilities, loans in the amount of thous. EUR 1,120,000 (December 31, 2021: thous. EUR 1,065,725) are subject to a fixed interest rate whose fair value amounts to thous. EUR 960,338 (December 31, 2021: thous. EUR 1,112,777). The calculation is based on the present value of future cash flows discounted by the currently observable yield curve (level 2). Amortized costs represent a proper approximation to the fair value for financial liabilities subject to variable interest rates.

No collaterals were provided in order to secure the financial liabilities described above. As of December 31, 2022, the Group had unused non-current credit lines available in the amount of thous. EUR 480,058 (December 31, 2021: thous. EUR 470,000).

As of December 31, 2022, current revolving bank credits in an amount of thous. EUR 67,980 (December 31, 2021: thous. EUR 37,980) are included in the interest-bearing financial liabilities.

14.2 Leases

The Group is predominantly lessee in lease transactions. Leases are recognized as right-of-use asset and a corresponding lease liability at the date at which the leased asset has become available for use by the Group.

Lease liabilities with a term of more than twelve months are measured at the present value of the remaining lease payments.

In principle, the implicit interest rate based on the lease contract is applied, if it can be determined. Otherwise, leases are discounted using the lessee's incremental borrowing rate, i. e., the interest rate that a lessee would have to pay for comparable transactions.

Payments for short-term leases of equipment and vehicles and all leases of low-value assets are not recognized in the balance sheet but as an expense. Lease contracts with terms of up to 12 months are classified as short-term leases.

The Group mainly rents and leases buildings, land, warehouses, offices, and other facilities that are necessary for the operating business. Extension and termination options are included in a number of real estate leases. The Group has assessed these and considered them accordingly. These contract conditions are used to maximize operational flexibility in terms of managing assets used in the Group's operations. The majority of extension and termination options held are exercisable only by the Group and not by the respective lessor.

An overview of the lease liabilities recognized in the balance sheet as of December 31, 2022 and December 31, 2021 is presented below:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Non-current lease liabilities	93,040	73,978
Current lease liabilities	17,261	10,787
Lease liabilities	110,301	84,765

Total cash outflows for leases in 2022 amounted to thous. EUR 17,285 (2021: thous. EUR 10,851).

Expenses related to payments not included in the measurement of the lease liability are as follows:

(in thousands of EUR)	2022	2021
Expenses related to variable lease payments	7,797	5,563
Expenses related to short-term leases	3,455	2,194
Expenses related to leases of low value assets	1,623	621

15 PROVISIONS FOR NON-CURRENT LIABILITIES AND CHARGES

Defined benefit pension obligations and other benefits related to severance obligations are valued actuarially in accordance with IAS 19 “Employee benefits” using the projected unit credit method. The present value of defined benefit obligations is calculated based on the years of service, the anticipated development of the employee’s compensation as well as the enacted contractual and statutory pension revaluation requirements. The service cost is recognized in personnel cost; the net interest cost for the provisions is recognized in “other financial result – net”. Actuarial gains and losses as well as gains from plan assets, excluding the amounts which are already included in the net interest on net liability, are recognized in other comprehensive income in the statement of comprehensive income in accordance with IAS 19.

Provisions for anniversary bonuses are valued actuarially for non-current obligations against employees related to the number of years of their service based on collective or plant bargaining agreements using the projected unit credit method. The service cost is recognized in personnel cost; the net interest cost for the provisions is recognized in “other financial result – net”. Actuarial gains and losses are recognized in the income statement in accordance with IAS 19.

Provisions for pre-retirement programs are accrued upon conclusion of individual contractual agreements as well as for probable pre-retirement agreements in the future, if employees have the right to participate in pre-retirement programs based on plant bargaining agreements or collective agreements. Statutory deposits of securities for covering pre-retirement programs are netted with the provisions for pre-retirement programs, provided that they meet the definition of plan assets.

The item “Other” mainly includes post-closure obligations for inherited liabilities and obligations for environmental measures.

15.1 Development of provisions for non-current liabilities and charges

In the financial year 2022, provisions for non-current liabilities and charges developed as follows:

(in thousands of EUR)	Pensions	Severance	Anniversary bonuses	Other	Total
Balance at Jan. 1, 2022	75,762	42,798	13,200	18,074	149,834
Effect of exchange rate changes	(283)	(441)	0	(316)	(1,040)
Changes in consolidated companies	(70)	536	0	11,933	12,399
Reclassifications	(1,107)	(375)	0	0	(1,482)
Utilization	(5,247)	(3,980)	(1,165)	(209)	(10,601)
Reversal	0	0	(2,509)	(154)	(2,663)
Increase	2,294	2,757	1,135	432	6,618
IAS 19 remeasurements through other comprehensive income	(27,757)	(5,164)	0	0	(32,921)
Benefit payments from and contributions to plan assets	1,252	0	0	0	1,252
Balance at Dec. 31, 2022	44,844	36,131	10,661	29,760	121,396

In 2021, provisions for non-current liabilities and charges developed as follows:

(in thousands of EUR)	Pensions	Severance	Anniversary bonuses	Other	Total
Balance at Jan. 1, 2021	81,960	37,284	13,806	9,951	143,001
Effect of exchange rate changes	1,003	(751)	0	(95)	157
Changes in consolidated companies	(3,739)	7,290	(727)	8,041	10,865
Reclassifications	0	0	0	103	103
Utilization	(4,335)	(4,502)	(608)	(427)	(9,872)
Reversal	(37)	(4)	(261)	(3)	(305)
Increase	1,884	2,059	990	504	5,437
IAS 19 remeasurements through other comprehensive income	581	1,422	0	0	2,003
Benefit payments from and contributions to plan assets	(1,555)	0	0	0	(1,555)
Balance at Dec. 31, 2021	75,762	42,798	13,200	18,074	149,834

As of December 31, 2022, securities with a fair value of thous. EUR 872 (December 31, 2021: thous. EUR 954) have been provided as security for provisions for pre-retirement programs within the scope of the respective legal commitments. At December 31, 2022 and December 31, 2021, those securities were deducted as plan assets from the underlying obligations.

The position "Other" mainly includes non-current obligations for environmental measures and dismantling obligations in the amount of thous. EUR 28,389 (December 31, 2021: thous. EUR 17,239).

In the division MM Board & Paper, the obligations mainly relate to environmental measures in connection with a landfill in Kwidzyn (Poland) as well as post-closure obligations at the former site in Hirschwang. The dismantling obligations in the division MM Packaging mainly result from the obligation of several newly acquired sites of former Essentra Packaging to remove leasehold improvements after termination of the lease. The provision values are determined with their present values assuming the expected costs taking into account term-specific interest rates.

15.2 Provisions for pensions and severance payments

The majority of the Group's employees are covered by government-sponsored pension and welfare programs, whereas the Group makes periodic payments to various government agencies, which are expensed as incurred. In addition, the Group provides certain employees with additional retirement benefits through the sponsorship of defined contribution plans and defined benefit plans. The benefits provided by the Group depend on the legal, fiscal, and economic circumstances of each individual country and are primarily based on the length of service and the employee's compensation.

Under the defined contribution plans, the Group makes fixed payments to external pension funds. Once the contributions have been made, the Group does not have any further payment obligations towards the employees. These periodical contribution payments are recognized as part of the annual pension and severance costs and amounted to thous. EUR 13,684 in the financial year 2022 (2021: thous. EUR 7,868).

Defined benefit obligations in the Group consist of pensions and severance payments. These obligations exist in several countries where the Group has employees, in particular in Germany, Austria, and Great Britain.

The pension obligations cover the arrangement of a pension program for active employees and, after fulfilment of the vesting period, for former employees, including their surviving dependants. Essentially, these are managers and also employees for whom a corresponding commitment originating from a time before the acquisition of the respective subsidiary was assumed by the Group. Therefore, obligations exist both towards employees in existing employment relationships and also towards employees who have left or retired.

Expected payments under the pension plan may depend on the salary received by the employee in the last year of service or on an average of several years and, as a rule, are based on the length of service. Pension benefits are granted as a non-recurring payment or as monthly retirement payments. In case of retirement payments, the Group bears the risk of longevity and inflation due to pension adjustments to the full extent.

In Great Britain, the Group operates a defined benefit pension plan which is governed by a board of trustees composed of representatives of the Company and plan participants. The responsibility for investment decisions and contribution schedules lies jointly with the Company and the board of trustees.

Obligations arising from the severance of employees cover legal and contractual claims for non-recurring severance payments made by the Group to employees due to certain reasons, such as termination, dissolution of an employment relationship by mutual agreement, retirement, or death of an employee. These payments significantly depend on the number of years of service and the cause of termination.

Defined benefit pension and other benefit plans are measured and recognized applying the internationally common projected unit credit method according to IAS 19. According to this method, the actuarial calculation of future obligations is based on the proportionate obligations as of the balance sheet date. The valuation was conducted based on assumptions and assessments as of the balance sheet date. Significant influencing factors were discount interest rate, estimated life expectancy, expected salary growth rate, expected pension growth rate as well as retirement age.

Actuarial gains and losses which result from changes in the number of plan participants and from differences between actual trends and estimates that are the basis for calculation are recognized in other comprehensive income in the consolidated comprehensive income statement according to IAS 19.

The calculation of pension and other benefit obligations is based on the following actuarial assumptions:

(in %)	Dec. 31, 2022		Dec. 31, 2021	
	Pensions	Severance	Pensions	Severance
Discount rate	4.03 %	4.89 %	1.24 %	1.85 %
Salary growth rate	3.06 %	4.16 %	2.47 %	3.01 %
Pension growth rate	2.79 %	-	2.44 %	-

The information presented above shows the weighted average of all relevant entities of the Group.

Valuation of life expectancy was performed based on local mortality tables. These are in particular for Austria: AVÖ 2018-P “Angestellte” or “Gemischt” (2021: AVÖ 2018-P “Angestellte” or “Gemischt”), for Germany: Heubeck-Richttafeln 2018 G (2021: 2018 G), for Great Britain: Post Retirement and Pre Retirement: S3PA CMI_2021_M/F [1.25 %] (2021: S3PA CMI_2020_M/F [1.25 %]). As a rule, the retirement age corresponds to the respective country-specific legal provisions.

The following expenses were recorded for defined benefit pension and severance commitments:

(in thousands of EUR)	2022		2021	
	Pensions	Severance	Pensions	Severance
Service cost	906	2,014	970	1,502
Net interest on the net defined benefit liability	846	722	760	533
Past service costs	0	26	0	5
Effects due to plan changes	396	(5)	(4)	15
Administration costs	146	0	121	0
Net periodic benefit cost	2,294	2,757	1,847	2,055

The defined benefit obligation and plan assets developed as follows:

(in thousands of EUR)	2022		2021	
	Pensions	Severance	Pensions	Severance
Defined benefit obligation at the beginning of the year	143,634	42,798	142,106	37,284
Effect of exchange rate changes	(1,448)	(442)	2,813	(751)
Changes in consolidated companies	(70)	536	(252)	7,290
Service cost	906	2,014	970	1,502
Interest cost	1,744	722	1,429	533
Past service costs	0	26	0	5
Plan participants contributions	74	0	0	0
Remeasurements	(36,448)	(5,163)	907	1,422
<i>Thereof (gains)/losses from change in demographic assumptions (e. g., life expectancy, retirement age)</i>	<i>(1,501)</i>	<i>(810)</i>	<i>(209)</i>	<i>792</i>
<i>Thereof (gains)/losses from change in financial assumptions (e. g., discount rate, salary growth rate, pension growth rate)</i>	<i>(36,541)</i>	<i>(6,567)</i>	<i>1,555</i>	<i>(688)</i>
<i>Thereof experience (gains)/losses (deviation between actual value and planned value)</i>	<i>1,594</i>	<i>2,214</i>	<i>(439)</i>	<i>1,318</i>
Benefit payments	(5,248)	(3,980)	(4,335)	(4,502)
Reclassifications	(4,500)	(375)	0	0
Effects due to plan changes	396	(5)	(4)	15
Defined benefit obligation at the end of the year	99,040	36,131	143,634	42,798

(in thousands of EUR)	Pensions	
	2022	2021
Fair value of plan assets at the beginning of the year	67,872	60,146
Effect of exchange rate changes	(1,163)	1,810
Changes in consolidated companies	0	3,487
Interest income	898	669
Administrative expense	(146)	(121)
Remeasurements	(4,110)	326
<i>Thereof return on plan assets excluding amounts included in interest income - net</i>	<i>(4,110)</i>	<i>326</i>
Employer contributions	1,768	3,705
Plan participants contributions	74	0
Benefit payments from plan	(3,020)	(2,150)
Reclassifications	(3,393)	0
Fair value of plan assets at the end of the year	58,780	67,872

An overview of the geographic and divisional allocation of net periodic benefit costs for defined benefit pensions and severance, defined benefit obligation, and the fair value of plan assets for the financial years 2022 and 2021 is represented as follows:

(in thousands of EUR)	2022							
	MM Board & Paper				MM Packaging			
	Germany	Austria	Other countries ¹⁾	Total	Germany	Austria	Other countries	Total
Net periodic benefit cost	283	696	941	1,920	719	1,414	998	3,131
Defined benefit obligation at the end of the year	14,249	33,924	38,559	86,732	24,971	13,945	9,523	48,439
Fair value of plan assets at the end of the year	860	28,766	27,338	56,964	849	656	311	1,816

¹⁾ This primarily includes the pension plan in Great Britain.

(in thousands of EUR)	2021							
	MM Board & Paper				MM Packaging			
	Germany	Austria	Other countries ¹⁾	Total	Germany	Austria	Other countries	Total
Net periodic benefit cost	286	700	309	1,295	691	939	977	2,607
Defined benefit obligation at the end of the year	20,047	44,841	55,221	120,109	36,413	21,757	8,153	66,323
Fair value of plan assets at the end of the year	881	29,197	32,825	62,903	846	3,788	335	4,969

¹⁾ This primarily includes the pension plan in Great Britain.

The employers' contributions to plan assets for the year 2023 are expected to amount to thous. EUR 1,515. This includes a contribution for increasing plan assets and for other expenses in Great Britain in the amount of thous. EUR 1,116.

The structure of plan assets

There are plan assets for pension obligations in Austria and Germany in the form of qualifying insurance policies which are pledged to the respective beneficiaries. The Group contributes to qualifying insurance policies as required.

Further plan assets include a pension plan in Great Britain which is assessed by external asset management according to directives of the responsible board of trustees. Current directives allow for a proportionate investment of 30 % to 40 % in equity instruments and of 60 % to 70 % in debt instruments; minimum diversification is prescribed to diversify the default risk, by which the single investment value is limited to 2 % of the portfolio and the total value of all investments in one company is limited to 4 % of the portfolio. Investments in Private Equity Funds and Hedge Funds are forbidden. The objective of asset management is to maximize the return at an adequate level of risk; index-based benchmarks are given to asset management to measure the achievement of objectives. The Group is obliged to provide regular contributions to the plan assets in Great Britain based on a contribution plan over several years. Furthermore, there are plan assets in the form of a pension plan in the Philippines and a collective foundation in Switzerland.

The portfolio structure of plan assets as of December 31, 2022 and of December 31, 2021:

(in thousands of EUR)	Dec. 31, 2022	in %	Dec. 31, 2021	in %
Equity instruments:				
– developed markets	7,626		9,951	
– emerging markets	1,161		994	
Total	8,787	15 %	10,945	16 %
Debt instruments:				
– Corporate bonds	9,996		13,216	
– Government bonds	2,319		2,021	
Total	12,315	21 %	15,237	22 %
Qualifying insurance policy pledged to beneficiaries	36,350	62 %	40,439	60 %
Money market investment/Bank deposit	1,328	2 %	1,251	2 %
Total	58,780	100 %	67,872	100 %

All instruments in the category equity instruments and debt instruments are traded on active markets. Ratings of investments in debt instruments correspond at least to “investment grade”.

Plan assets market price risk

Return on plan assets is assumed in accordance with IAS 19 using the discount rate for the underlying obligation. That corresponds to the return on corporate bonds with good credit ratings. Provided that the actual return on plan assets exceeds (falls below) the discount interest rate used, net liability from the present plans decreases (increases). Due to the proportion of investments in equity in the plan assets in Great Britain, the actual return may, on the one hand, exceed the return on corporate bonds with good credit ratings in the long term and, on the other hand, result in higher plan asset volatility in the short term. Related price risk is considered as manageable by the Group, as the proportion of investments in equity in total plan assets is low. Furthermore, the obligations which reach maturity in the next years can be fulfilled using current cash flow of the Group and other components of plan assets.

The net liability from pension and severance obligations and the reconciliation to the net liability recognized are as follows:

(in thousands of EUR)	Dec. 31, 2022		Dec. 31, 2021	
	Pensions	Severance	Pensions	Severance
Defined benefit obligation	99,040	36,131	143,634	42,798
<i>Thereof obligations covered by provisions</i>	<i>37,846</i>	<i>36,131</i>	<i>58,308</i>	<i>42,798</i>
<i>Thereof obligations covered by funds</i>	<i>61,194</i>	<i>0</i>	<i>85,326</i>	<i>0</i>
Less fair value of plan assets	(58,780)	0	(67,872)	0
Net liability	40,260	36,131	75,762	42,798
Effect due to asset ceiling	4,584	0	0	0
Net liability recognized as provision for non-current liabilities and charges	44,844	36,131	75,762	42,798

The following sensitivity analysis for pension and severance provisions presents the impact a possible change in significant actuarial assumptions might have on the obligation. If one significant assumption is changed, the other assumptions are kept constant.

Impact on the defined benefit obligation 2022			
(in %)	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	1.00 %	Decrease by 11.2 %	Increase by 11.8 %
Salary growth rate	1.00 %	Increase by 2.6 %	Decrease by 2.6 %
Pension growth rate	1.00 %	Increase by 7.5 %	Decrease by 7.0 %
		Increase by one year in assumption	
Retirement age		Decrease by 0.5 %	
Life expectancy		Increase by 2.7 %	

Impact on the defined benefit obligation 2021			
(in %)	Change in assumption	Increase in assumption	Decrease in assumption
Discount rate	1.00 %	Decrease by 13.6 %	Increase by 14.4 %
Salary growth rate	1.00 %	Increase by 2.8 %	Decrease by 2.8 %
Pension growth rate	1.00 %	Increase by 9.6 %	Decrease by 9.2 %
		Increase by one year in assumption	
Retirement age		Decrease by 0.9 %	
Life expectancy		Increase by 3.0 %	

The weighted average duration of the defined benefit obligation is 12.0 years as of the balance sheet date (December 31, 2021: 14.3 years).

The expected maturity analysis of defined benefit obligations for the next ten years as of December 31, 2022 and December 31, 2021 in relation to actual payments is as follows:

(in thousands of EUR)	Less than a year	Between 1 – 2 years	Between 2 – 5 years	Between 5 – 10 years	Total
As of Dec. 31, 2022					
Defined benefit plans	6,714	6,840	23,068	50,922	87,544
As of Dec. 31, 2021					
Defined benefit plans	7,049	6,726	22,106	49,662	85,543

16 TRADE LIABILITIES

Current liabilities are, as a rule, recognized at the redemption amount.

Trade liabilities amounting to thous. EUR 499,677 (December 31, 2021: thous. EUR 437,726) as of December 31, 2022 comprise liabilities from acquisition of property, plant and equipment, and intangible assets amounting to thous. EUR 26,441 (December 31, 2021: thous. EUR 23,222) which are taken into consideration as non-cash transactions within the cash flow from investing activities, as well as advances from customers in an amount of thous. EUR 5,823 (December 31, 2021: thous. EUR 4,550).

17 DEFERRED INCOME AND OTHER CURRENT LIABILITIES

Accruals comprise liabilities for which the exact time of utilization or amount is uncertain and which, at the same time, are definable to a high degree of certainty. Even if the amount and the exact time are occasionally only estimated, the measurement precision of accruals is significantly higher than that of provisions. Therefore they are recognized according to their origin as trade liabilities (see note 16) and other current liabilities, especially in personnel and social costs.

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Obligations for personnel and social costs	129,726	103,180
Derivative liabilities	32,090	5,957
Other tax liabilities	31,928	20,058
Deferred income	30,850	10,153
Liabilities for customer rebates and bonuses	30,304	22,049
Other liabilities - interest accruals	14,402	13,328
Other liabilities	27,403	23,903
Deferred income and other current liabilities	296,703	198,628
Thereof financial liabilities	73,188	42,909
Thereof non-financial liabilities	223,515	155,719

Obligations for personnel and social costs particularly include premiums and bonuses for employees, unused vacations as well as other deferred personnel-related obligations.

The calculation of liabilities for customer rebates and bonuses is based on the bonus and rebates claims of customers included in the underlying customer arrangements. Bonuses are set up in a way that customers receive a retrospective reimbursement if a certain purchase volume was reached within an invoicing period.

Derivative liabilities increased in the financial year 2022 due to the first-time recognition of a derivative as a result of the elimination of the "own-use exemption" in the course of hedging raw material prices in Finland (see note 7).

Interest accruals mainly result from the issuance of Schuldschein loans and Namensschuldverschreibungen in the previous year.

Other liabilities particularly comprise the contingent purchase price liability related to the acquisition of Eson Pac Group as well as liabilities in connection with consulting services.

18 PROVISIONS FOR CURRENT LIABILITIES AND CHARGES

Provisions are created when the Group has a present legal or constructive obligation to a third party as a result of a past event, if it is probable that it will be settled and if the amount of the obligation can be reliably estimated. The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the balance sheet date.

Provisions for large numbers of similar obligations, e. g., warranties, are measured at a probability-weighted expected value of assets reduction based on this group of obligations. A provision is also recognized even if the probability of a claim on assets is negligible for a single obligation included in this group.

In the financial year 2022, provisions for current liabilities and charges developed as follows:

(in thousands of EUR)	Sales	Provision for restructuring costs	Other provisions	Total
Balance at Jan. 1, 2022	6,523	8,818	32,877	48,218
Effect of exchange rate changes	(101)	14	(124)	(211)
Changes in consolidated companies	(68)	422	(148)	206
Utilization	(2,203)	(8,184)	(5,520)	(15,907)
Reversal	(599)	(258)	(19,964)	(20,821)
Increase	2,054	8,947	7,781	18,782
Balance at Dec. 31, 2022	5,606	9,759	14,902	30,267

In the financial year 2021, provisions for current liabilities and charges developed as follows:

(in thousands of EUR)	Sales	Provision for restructuring costs	Other provisions	Total
Balance at Jan. 1, 2021	4,036	11,208	6,688	21,932
Effect of exchange rate changes	(208)	0	3	(205)
Reclassifications	0	0	97	97
Changes in consolidated companies	(115)	0	21,413	21,298
Utilization	(795)	(4,972)	(10,449)	(16,216)
Reversal	(351)	0	(1,341)	(1,692)
Increase	3,956	2,582	16,466	23,004
Balance at Dec. 31, 2021	6,523	8,818	32,877	48,218

The provisions for sales are recognized on product warranties and guarantees as well as returned goods. The provisions for product warranties and guarantees are made both on a legal and a contractual basis. Single risks, on the one hand, and the overall risk based on past experience, on the other hand, are taken into consideration for the calculation.

The restructuring provisions as of December 31, 2022 mainly result from the decommissioning of the smaller cartonboard machine at the Kolicovo site (see note 5).

The position "Other provisions" primarily comprises provisions for litigations and legal costs, provisions for other taxes as well as a variety of immaterial individual items. The decrease compared to the previous year results in particular from the reversal of current provisions in connection with CO₂ certificates due to sufficient coverage at the balance sheet date.

19 SEGMENT REPORTING INFORMATION

Mayr-Melnhof Karton AG and its subsidiaries operate in two operating areas, the production of cartonboard and paper (division MM Board & Paper) and the production of folding cartons and packaging (division MM Packaging). The Group is organized according to these two operating areas and is managed by the Management Board based on the financial information acquired thereon. Hence, the segments reported correspond to these two operating areas.

The division MM Board & Paper manufactures and distributes numerous grades of cartonboard, focusing in particular on coated cartonboard made from recycled and virgin fibers. In the course of the strategic acquisitions of the cartonboard and paper mills Kwidzyn, Poland, and Kotkamills, Finland, in the previous year, kraft papers and uncoated fine papers were added as new business areas to the division MM Board & Paper.

The division MM Packaging converts cartonboard into printed folding cartons purchased by customers in a variety of industries including food and consumer goods (e. g., packaging for cereals, dried foods, sugar, confectionary and baked goods, cosmetics and toiletries, detergents, domestic appliances, toys, tobacco products, pharma packaging, and high-grade confectionary). Through the acquisitions of Essentra Packaging and Eson Pac in the Pharma & Health Care business area, MM Packaging is also active in the production of leaflets and labels.

Data provided by the management information system on which segment reporting is based is in accordance with the accounting and recognition principles applied to the consolidated financial statements. Central operations are completely allocated to the operating segments by an allocation system in analogy with the procedures in the management information system. Results from intersegment transactions have already been eliminated in the segment results.

The Group measures the performance of its operating segments by assessing operating profit and profit for the year as presented in the Group's income statement.

Intersegment sales are carried out on an arm's length basis.

Sales are allocated based on the shipment destinations of finished goods, whereas non-current assets are allocated according to the location of the respective units.

Capital expenditures and depreciation/amortization and impairment refer to the acquisition or depreciation/amortization and impairment of property, plant and equipment as well as intangible assets including goodwill (see note 6).

Revenue recognition

Revenues comprise all income generated by the typical business activities of the MM Group and include income from the sale of numerous grades of cartonboard and folding cartons. The dis-aggregation of performance obligations under certain circumstances may result in a separation of performance obligations related to rendered transportation services, depending on the individual terms of delivery agreed with customers. These transportation services are, however, of low significance for the Group. Apart from this, no further material multiple-component contracts covering, for example, the performance of services besides the delivery of goods were identified. Tools, such as die cutting tools and engravings, are not to be considered as individual service obligations, because they are necessary for the fulfilment of contracts.

The transaction price to which the Group is entitled in exchange for the transfer of goods consists of the price for the transferred goods and any variable element in the form of customer rebates and bonuses and is to be paid on credit. Due to the agreed terms of payment, there is no financial component. The variable component is considered as "liability for customer rebates and bonuses". The amount of this liability depends on the probable claim of a customer and is regularly evaluated and adjusted, if necessary.

Revenues from manufacturing and selling cartonboard and folding cartons are recognized at a point in time based on the agreed individual terms of delivery.

The segment reporting information concerning the Group's operating segments can be illustrated as follows:

(in thousands of EUR)	2022			Consolidated
	MM Board & Paper	MM Packaging	Eliminations	
Sales to external customers	2,514,362	2,167,698	0	4,682,060
Intersegment sales	235,610	988	(236,598)	0
Total sales	2,749,972	2,168,686	(236,598)	4,682,060
Operating profit	380,959	129,313	0	510,272
Financial income	944	3,947	(641)	4,250
Financial expenses	(26,007)	(6,783)	641	(32,149)
Profit before tax	353,008	113,892	0	466,900
Income tax expense	(87,267)	(34,389)	0	(121,656)
Profit for the year	265,742	79,502	0	345,244
Capital expenditures	194,294	150,786	0	345,080
Depreciation and amortization	(104,072)	(94,531)	0	(198,603)
Impairments ¹⁾	(14,297)	(6,749)	0	(21,046)
Segment assets	3,045,180	2,260,406	(486,948)	4,818,638
Segment liabilities	1,954,961	1,391,274	(486,948)	2,859,287
Employees as of December 31	4,776	10,864	0	15,640

¹⁾ for property, plant and equipment, and intangible assets as well as non-current assets held for sale

(in thousands of EUR)	2021			
	MM Board & Paper	MM Packaging	Eliminations	Consolidated
Sales to external customers	1,428,838	1,640,876	0	3,069,714
Intersegment sales	132,233	759	(132,992)	0
Total sales	1,561,071	1,641,635	(132,992)	3,069,714
Operating profit	107,694	161,921	0	269,615
Financial income	394	3,231	(306)	3,319
Financial expenses	(20,678)	(3,997)	306	(24,369)
Profit before tax	86,766	157,783	0	244,549
Income tax expense	(16,845)	(37,003)	0	(53,848)
Profit for the year	69,921	120,780	0	190,701
Capital expenditures	113,082	144,716	0	257,798
Depreciation and amortization	(75,156)	(73,797)	0	(148,953)
Impairments ¹⁾	(2,395)	0	0	(2,395)
Segment assets	2,747,648	1,597,304	(330,734)	4,014,218
Segment liabilities	1,865,433	817,637	(330,730)	2,352,340
Employees as of December 31	4,787	7,705	0	12,492

¹⁾ for property, plant and equipment, and intangible assets as well as non-current assets held for sale

The following table shows a country-by-country breakdown of net sales based on shipment destinations as well as a summary of non-current assets and capital expenditures based on locations:

(in thousands of EUR)	2022			2021		
	Net sales	Non-current assets	Capital expenditures	Net sales	Non-current assets	Capital expenditures
Europe	3,751,311	2,577,522	309,507	2,367,264	2,226,434	231,617
<i>Austria</i>	<i>85,812</i>	<i>541,586</i>	<i>72,119</i>	<i>65,193</i>	<i>527,808</i>	<i>74,996</i>
<i>Germany</i>	<i>802,924</i>	<i>325,966</i>	<i>55,540</i>	<i>509,420</i>	<i>280,394</i>	<i>40,933</i>
<i>Poland</i>	<i>684,092</i>	<i>737,584</i>	<i>53,555</i>	<i>374,298</i>	<i>727,630</i>	<i>36,333</i>
<i>France</i>	<i>419,376</i>	<i>85,716</i>	<i>10,380</i>	<i>296,988</i>	<i>79,729</i>	<i>11,571</i>
<i>Great Britain</i>	<i>319,505</i>	<i>164,509</i>	<i>18,771</i>	<i>232,191</i>	<i>24,811</i>	<i>18,427</i>
<i>Rest of Europe</i>	<i>1,439,602</i>	<i>722,161</i>	<i>99,142</i>	<i>889,174</i>	<i>586,062</i>	<i>49,357</i>
The Americas	239,956	123,804	13,201	146,814	33,941	3,547
Rest of world	690,793	129,005	22,372	555,636	144,449	22,634
Total	4,682,060	2,830,331	345,080	3,069,714	2,404,824	257,798

Non-current assets and capital expenditures comprise property, plant and equipment and intangible assets including goodwill (see note 6). Capital expenditures also include payments on account of property, plant and equipment (see note 12).

20 OTHER OPERATING INCOME

(in thousands of EUR)	2022	2021
Income from energy sales	44,091	11,285
Rental income	3,443	1,750
Insurance claims	2,577	1,787
Gains and losses from disposal of property, plant and equipment, and intangible assets - net	(628)	9,497
Income from the deconsolidation of subsidiaries	0	47,335
Other income	21,381	13,206
Other operating income	70,864	84,860

Income from energy sales in 2022 originate in particular from gas resales in Finland resulting from lower consumption due to conversion-related production downtimes.

Gains and losses from disposal of property, plant and equipment, and intangible assets - net include various disposals of minor significance. In the previous year, this item mainly included gains from the sale of “non-current assets held for sale” in connection with the closure of Hirschwang.

Income from the deconsolidation of subsidiaries in the previous year included thous. EUR 46,175 from the disposal of the sites at Eerbeek and Baiersbronn and thous. EUR 1,160 from the deconsolidation of Al-Ekbal Printing and Packaging Co., Amman, Jordan.

The position “Other income” mainly includes income from energy efficiency refunds in the amount of thous. EUR 11,736 (2021: thous. EUR 4,385), as well as a variety of individual items.

21 EXPENSES BY NATURE

The consolidated income statements are prepared using the presentation of expenses by function. The following tables comprise a breakdown of expenses by nature for the financial years 2022 and 2021:

(in thousands of EUR)	2022	2021
Cost of materials and purchased services	2,862,084	1,798,630
Personnel expenses	660,610	540,472
Depreciation and amortization	198,603	148,953
Impairments ¹⁾	21,046	2,395
Other expenses	500,309	394,509
Total cost of sales, selling and distribution, administrative and other operating expenses	4,242,652	2,884,959

¹⁾ for property, plant and equipment, and intangible assets as well as non-current assets held for sale

(in thousands of EUR)	2022	2021
Cost of materials and purchased services	2,862,084	1,798,630
Personnel expenses	447,673	375,296
Depreciation and amortization	158,640	123,385
Impairments ¹⁾	21,046	2,395
Other expenses	65,302	113,851
Cost of sales	3,554,745	2,413,557

¹⁾ for property, plant and equipment, and intangible assets as well as non-current assets held for sale

(in thousands of EUR)	2022	2021
Personnel expenses	212,937	165,176
Depreciation and amortization	39,963	25,568
Impairments ¹⁾	0	0
Other expenses	435,007	280,658
Total selling and distribution, administrative and other operating expenses	687,907	471,402

¹⁾ for property, plant and equipment, and intangible assets as well as non-current assets held for sale

22 PERSONNEL EXPENSES

Personnel expenses from all Group areas can be broken down as follows:

(in thousands of EUR)	2022	2021
Gross wages	257,527	211,062
Gross salaries	263,932	202,683
Severance expenses	6,705	21,871
Pension expenses	13,913	8,336
Expenses for statutory social security as well as payroll-related taxes and compulsory contributions	100,090	84,197
Other welfare expenses	18,443	12,323
Total	660,610	540,472

The average number of employees is as follows:

(Number of persons)	2022	2021
Factory workers	10,471	8,489
Office staff	3,153	2,529
Total	13,624	11,018

Remuneration of the management

The key management of the Group includes the Management Board and the Supervisory Board. The remuneration of the management is as follows:

(in thousands of EUR)	2022	2021
Salaries and other short-term employee benefits (incl. remuneration of the Supervisory Board)	10,037	10,230
Post-employment benefits	1,167	1,147
Termination benefits	2,517	0
Long-term employee benefits (Board of Management)	866	326
Total	14,587	11,703

The payment of long-term benefits (long-term profit-sharing) is conditional on the achievement of a certain operating margin for the next three years based on a three-year plan. For an operating margin determined at the beginning, the Management Board is entitled to a profit-sharing payment in a defined amount. Deviations from this average operating margin lead to increases or decreases in the target amount.

The short-term benefits of the members of the Management Board is as follows:

(in thousands of EUR)	2022	2021
Fixed remuneration	2,456	2,492
Variable remuneration	6,840	7,347
Total	9,296	9,839

The provision for variable compensations that has not yet been paid out amounted to thous. EUR 8,667 as of December 31, 2022 (December 31, 2021: thous. EUR 6,918).

In the financial year 2022, a company pension was paid to former board members and their surviving dependents, amounting to thous. EUR 1,037 (2021: thous. EUR 841).

The remuneration of the members of the Supervisory Board elected by the shareholders for the financial year 2022 amounted to thous. EUR 741 (2021: thous. EUR 717).

23 EXPENSES FOR THE GROUP AUDITOR

The 28th Ordinary Shareholders' Meeting on April 27, 2022 appointed PwC Wirtschaftsprüfung GmbH as auditor for the consolidated and individual financial statements of Mayr-Melnhof Karton AG. Furthermore, they audited the individual financial statements of all material Austrian subsidiaries. In 2022, expenses for services rendered by PwC Wirtschaftsprüfung GmbH in Austria amounted to thous. EUR 807 (2021: thous. EUR 743), of which thous. EUR 781 (2021: thous. EUR 644) were related to auditing and other assurance services and thous. EUR 26 (2021: thous. EUR 99) were related to other services.

24 RESEARCH AND DEVELOPMENT EXPENSES

Research and development costs are recognized as expenses as incurred. Neither as of December 31, 2022 nor as of December 31, 2021 have any development costs been capitalized.

Research and development costs recognized as expenses in the income statement amounted to thous. EUR 7,429 in the financial year 2022 (2021: thous. EUR 4,580).

25 FINANCIAL INCOME

(in thousands of EUR)	2022	2021
Interest from bank deposits	4,063	3,230
Other financial income	187	89
Total financial income	4,250	3,319

26 FINANCIAL EXPENSES

(in thousands of EUR)	2022	2021
Interest expense related to financial liabilities	(22,686)	(17,533)
Interest expense on lease liabilities	(2,919)	(1,867)
Other financial expenses	(6,544)	(4,969)
Total financial expenses	(32,149)	(24,369)

The interest expense on financial liabilities mainly comprises interests related to the issuance of Schuldschein loans and Namensschuldverschreibungen in 2021. Other financial expenses particularly comprise commitment fees for unused credit lines and commissions in connection with financing of acquisitions.

27 OTHER FINANCIAL RESULT – NET

(in thousands of EUR)	2022	2021
Foreign currency exchange rate gains (losses) – net	(15,386)	(3,862)
Net interest cost from benefit obligation	(1,701)	(1,367)
Result from investments accounted for using the equity method	1,376	720
Dividend income	408	606
Result from hyperinflation adjustments (IAS 29)	353	0
Other financial income	6	388
Other financial expenses	(529)	(501)
Other financial result – net	(15,473)	(4,016)

The foreign currency exchange rate gains (losses) – net in 2022 include in particular valuation effects of a transaction-dependent EUR/GBP foreign currency forward (“deal contingent forward”) for hedging foreign currency risks resulting from the purchase price obligation of the Essentra Packaging Group. The negative valuation effect amounted to thous. EUR –7,839.

28 EARNINGS PER SHARE

Earnings per share are calculated in accordance with IAS 33 “Earnings per Share”. The standard requires the calculation and disclosure of two key figures: basic and diluted earnings per share. Basic earnings per share are calculated by dividing profit or loss attributable to the shareholders of the Company by the weighted average number of shares outstanding during the financial year. As there were no dilutive stock options neither as of December 31, 2022 nor as of December 31, 2021, it was not necessary to calculate the diluted earnings per share, which thus correspond to the basic earnings per share.

Basic earnings per share are calculated by dividing net profit for the year attributable to ordinary shareholders of the parent company by the weighted average number of ordinary shares outstanding during the year.

	2022	2021
Profit attributable to ordinary shareholders of the parent company (in thousands of EUR)	343,793	189,174
Weighted average number of ordinary shares	20,000,000	20,000,000
Basic earnings per share attributable to ordinary shareholders of the parent company (in EUR)	17.19	9.46

As in the previous year, the number of shares issued as of December 31, 2022 amounted to 20,000,000 shares.

29 COMMITMENTS AND CONTINGENT LIABILITIES

Commitments from legal proceedings and similar claims

The Group is subject to various claims and legal proceedings that have arisen in the ordinary course of business. Based on all facts available to the Management, the Group believes that the ultimate resolution of these claims and legal proceedings will be unlikely to have a material adverse effect on its financial position or consolidated profit, although no assurance can be given with respect to the outcome of such claims or litigations.

Commitments from environmental matters

The Group is also subject to various environmental laws and regulations in the countries in which it operates. Expenditures for environmental matters which relate to existing conditions caused by past operations and have no significant future benefit are expensed as incurred. If an expense is probable and the respective amount can be reliably estimated, the Group recognizes provisions for environmental risks and post-closure obligations (see note 15).

Other contingent liabilities

As of December 31, 2022, purchase obligations regarding planned capital expenditures for fixed assets amounted to thous. EUR 201,754 (December 31, 2021: thous. EUR 136,440). This development is mainly due to planned Group-wide investment programs focusing on expansion and renewal.

30 DISCLOSURES ON TRANSACTIONS WITH RELATED PARTIES

Raw materials for the production of cartonboard amounting to thous. EUR 7,317 were purchased from other related companies in 2022 (2021: thous. EUR 5,497). As of December 31, 2022, trade liabilities with other related companies amounted to thous. EUR 0 (December 31, 2021: thous. EUR 606).

In 2022, sales from transactions with associated companies amounted to thous. EUR 2,501 (2021: thous. EUR 423). As of December 31, 2022, trade and other receivables with associated companies amounted to thous. EUR 672 (December 31, 2021: thous. EUR 45).

Raw materials amounting to thous. EUR 7,451 were purchased from joint ventures in 2022 (2021: thous. EUR 4,206). As of December 31, 2022, trade liabilities with joint ventures amounted to thous. EUR 713 (December 31, 2021: thous. EUR 826).

Transactions with these companies are carried out on an arm's length basis.

Key management personnel of the Group (active Management Board and Supervisory Board members of Mayr-Melnhof Karton AG) and their close relatives are considered as related parties. For information regarding management remuneration, please refer to note 22.

Expenses for consulting services rendered by two members of the Supervisory Board amounted to thous. EUR 40 (2021: thous. EUR 143). As of December 31, 2022 liabilities of thous. EUR 0 (December 31, 2021: thous. EUR 30) were recognized in this context. Standard market rates were charged for these consulting services.

For information on contributions to the pension benefit plan in Great Britain, please refer to note 15.

31 NOTES ON THE CONSOLIDATED CASH FLOW STATEMENTS

Cash and cash equivalents

Cash and cash equivalents comprise cash, checks, and short-term demand deposits at financial institutions with expiration dates within three months. Cash and cash equivalents denominated in foreign currencies are translated into Euro using the exchange rates at the balance sheet date. For the purpose of the statement of cash flows, the above defined cash and cash equivalents comprise the following:

(in thousands of EUR)	Dec. 31, 2022	Dec. 31, 2021
Fixed deposits	51,009	52,279
Unrestricted bank deposits and cash	228,235	306,474
Other restricted bank deposits	819	793
Cash and cash equivalents	280,063	359,546

Cash flow from operating activities is derived from the consolidated financial statements using the indirect method, while cash flows from investing and financing activities are calculated directly on the basis of cash inflows and outflows.

Cash flow from operating activities increased from thous. EUR 269,820 to thous. EUR 299,738. This change is mainly due to a higher cash-effective result, which was offset by a sharp increase in working capital.

Other adjustments in net cash from profit result in particular from the changes in non-current provisions and from effects of exchange rate changes.

Cash flow from investing activities changed from thous. EUR -891,401 to thous. EUR -573,297. This change mainly results from the payment of the purchase prices for the acquisition of Eson Pac in the amount of thous. EUR 52,066 and Essentra Packaging in the amount of thous. EUR 338,075, which were offset by payments received from the sale of the Russian packaging plants in the amount of thous. EUR 134,000. Payments for the acquisition of property, plant and equipment, and intangible assets increased in line with the intensified investment program from thous. EUR 248,430 in the previous year to thous. EUR 329,388 in the financial year 2022.

Cash flow from financing activities changed from thous. EUR 836,889 to thous. EUR 191,894, which is mainly due to the issuance of Schuldschein loans and Namensschuldverschreibungen in the previous year.

The following table shows a reconciliation of financial liabilities from cash and non-cash changes:

(in thousands of EUR)	Non-current interest- bearing financial liabilities	Current interest-bearing financial liabilities	Total
Balance at Jan. 1, 2022,	1,349,074	74,003	1,423,077
Issuances of financial liabilities	315,000	228,589	543,589
Repayments of financial liabilities	(10,098)	(237,564)	(247,662)
Total cash changes	304,902	(8,975)	295,927
Changes in consolidated companies	23,468	10,474	33,942
Effect of exchange rates	(2,203)	(211)	(2,414)
Other non-cash changes	(1,201)	12,258	11,057
Total non-cash changes	20,064	22,521	42,585
Balance at Dec. 31, 2022	1,674,040	87,549	1,761,589

Other non-cash changes mainly include additions to lease liabilities which are set off by the acquisition of assets in the same amount. Furthermore, this position includes reclassifications from non-current to current financial liabilities.

(in thousands of EUR)	Non-current interest- bearing financial liabilities	Current interest-bearing financial liabilities	Total
Balance at Jan. 1, 2021	215,511	52,915	268,426
Issuances of financial liabilities	1,125,000	100,114	1,225,114
Repayments of financial liabilities	(167,711)	(143,291)	(311,002)
Total cash changes	957,289	(43,177)	914,112
Changes in consolidated companies	202,432	32,394	234,826
Effect of exchange rates	156	321	477
Other non-cash changes	(26,314)	31,550	5,236
Total non-cash changes	176,274	64,265	240,539
Balance at Dec. 31, 2021	1,349,074	74,003	1,423,077

32 SIGNIFICANT SUBSEQUENT EVENTS AND FURTHER INFORMATION

There have been no subsequent events after the balance sheet date with any material effect on the consolidated financial statements of the Group.

33 TABLE OF AFFILIATED AND ASSOCIATED COMPANIES

2022					2021				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
Mayr-Melnhof Karton Aktiengesellschaft, Vienna (AUT)	EUR	80,000	-	FC ¹⁾	Mayr-Melnhof Karton Aktiengesellschaft, Vienna (AUT)	EUR	80,000	-	FC ¹⁾
MM Service GmbH, Vienna (AUT)	EUR	35	100.00 %	FC ¹⁾	MM Service GmbH, Vienna (AUT)	EUR	35	100.00 %	FC ¹⁾
MM BOARD & PAPER					MM BOARD & PAPER				
CP (CartPrint) International Trading AG, Worb (CHE)	CHF	100	100.00 %	FC ¹⁾	CP (CartPrint) International Trading AG, Worb (CHE)	CHF	100	100.00 %	FC ¹⁾
free-com solutions GmbH, Vienna (AUT)	EUR	35	51.00 %	FC ¹⁾	free-com solutions GmbH, Vienna (AUT)	EUR	35	51.00 %	FC ¹⁾
Lokalbahn Payerbach-Hirschwang Gesellschaft m. b. H., Reichenau/Rax (AUT)	EUR	190	100.00 %	FC ¹⁾	Lokalbahn Payerbach-Hirschwang Gesellschaft m. b. H., Reichenau/Rax (AUT)	EUR	190	100.00 %	FC ¹⁾
MM BOARD & PAPER GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC ¹⁾	MM BOARD & PAPER GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC ¹⁾
MM FollaCell AS, Follafooss (NOR)	NOK	10,000	100.00 %	FC ¹⁾	MM FollaCell AS, Follafooss (NOR)	NOK	10,000	100.00 %	FC ¹⁾
MM Frohnleiten GmbH, Frohnleiten (AUT)	EUR	7,500	100.00 %	FC ¹⁾	MM Frohnleiten GmbH, Frohnleiten (AUT)	EUR	7,500	100.00 %	FC ¹⁾
MM Gernsbach GmbH, Gernsbach (DEU)	EUR	9,205	100.00 %	FC ¹⁾	MM Gernsbach GmbH, Gernsbach (DEU)	EUR	9,205	100.00 %	FC ¹⁾
MM Kolicivo d. o. o., Domzale (SVN)	EUR	12,828	100.00 %	FC ¹⁾	MM Kolicivo d. o. o., Domzale (SVN)	EUR	12,828	100.00 %	FC ¹⁾
MM Kotkamills Absorbex Oy, Kotka (FIN)	EUR	2	100.00 %	FC ¹⁾	MM Kotkamills Absorbex Oy, Kotka (FIN)	EUR	2	100.00 %	FC ¹⁾
MM Kotkamills Boards Oy, Kotka (FIN)	EUR	10,200	100.00 %	FC ¹⁾	MM Kotkamills Boards Oy, Kotka (FIN)	EUR	10,200	100.00 %	FC ¹⁾
MM Kotkamills Oy, Kotka (FIN)	EUR	80	100.00 %	FC ¹⁾	MM Kotkamills Oy, Kotka (FIN)	EUR	80	100.00 %	FC ¹⁾
MM Kotkamills Wood Oy, Kotka (FIN)	EUR	2	100.00 %	FC ¹⁾	MM Kotkamills Wood Oy, Kotka (FIN)	EUR	2	100.00 %	FC ¹⁾
MM Kwidzyn Sp. z o. o., Kwidzyn (POL)	PLN	90,000	100.00 %	FC ¹⁾	MM Kwidzyn Sp. z o. o., Kwidzyn (POL)	PLN	90,000	100.00 %	FC ¹⁾
MM Neuss GmbH, Baiersbronn (DEU)	EUR	7,500	100.00 %	FC ¹⁾	MM Neuss GmbH, Baiersbronn (DEU)	EUR	7,500	100.00 %	FC ¹⁾
Nomamasa GmbH, Düsseldorf (DEU)	EUR	25	100.00 %	FC ¹⁾	-	-	-	-	-
Tor-Pal Sp. z o. o., Kwidzyn (POL)	PLN	384	92.33 %	FC ¹⁾	Tor-Pal Sp. z o. o., Kwidzyn (POL)	PLN	384	89.85 %	FC ¹⁾

2022					2021				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
Trading companies & sales offices of MM Board & Paper					Trading companies & sales offices of MM Board & Paper				
Keminer Remmers Spiëhs Kartonhandels GmbH, Gernsbach (DEU)	EUR	1,280	100.00 %	FC ¹⁾	Keminer Remmers Spiëhs Kartonhandels GmbH, Gernsbach (DEU)	EUR	1,280	100.00 %	FC ¹⁾
Mayr-Melnhof & Wilfried Heinzel Tehran Co., Tehran (IRN)	IRR	100,000	36.00 %	NE ²⁾	Mayr-Melnhof & Wilfried Heinzel Tehran Co., Tehran (IRN)	IRR	100,000	36.00 %	NE ²⁾
MM Board Benelux B.V., Amstelveen (NLD)	EUR	91	100.00 %	FC ¹⁾	MM Board Benelux B.V., Amstelveen (NLD)	EUR	91	100.00 %	FC ¹⁾
MM Board Bulgaria EOOD, Sofia (BGR)	BGN	5	100.00 %	FC ¹⁾	MM Board Bulgaria EOOD, Sofia (BGR)	BGN	5	100.00 %	FC ¹⁾
MM Board Czech s.r.o., Prague (CZE)	CZK	820	100.00 %	FC ¹⁾	MM Board Czech s.r.o., Prague (CZE)	CZK	820	100.00 %	FC ¹⁾
MM Board France SARL, Paris (FRA)	EUR	8	100.00 %	FC ¹⁾	MM Board France SARL, Paris (FRA)	EUR	8	100.00 %	FC ¹⁾
MM Board Germany GmbH, Neuss (DEU)	EUR	26	100.00 %	FC ¹⁾	MM Board Germany GmbH, Neuss (DEU)	EUR	26	100.00 %	FC ¹⁾
MM B&P Hungary Kft., Budaörs (HUN)	HUF	20	100.00 %	FC ¹⁾	MM B&P Hungary Kft., Budaörs (HUN)	HUF	20	100.00 %	FC ¹⁾
MM Board Italy SRL, Milan (ITA)	EUR	51	75.00 %	FC ¹⁾	MM Board Italy SRL, Milan (ITA)	EUR	51	75.00 %	FC ¹⁾
MM Board North Africa SARL, Tunis (TUN)	TND	80	100.00 %	FC ¹⁾	Mayr-Melnhof Mediterra SARL, Tunis (TUN)	TND	80	100.00 %	FC ¹⁾
MM Board Polska Sp.z.o.o., Poznan (POL)	PLN	50	100.00 %	FC ¹⁾	MM Board Polska Sp.z.o.o., Poznan (POL)	PLN	50	100.00 %	FC ¹⁾
MM Board SI d.o.o., Domzale (SVN)	EUR	30	100.00 %	FC ¹⁾	MM Board SI d.o.o., Domzale (SVN)	EUR	30	100.00 %	FC ¹⁾
MM Board Spain S.A., Barcelona (ESP)	EUR	60	75.00 %	FC ¹⁾	Austria Cartón S.A., Barcelona (ESP)	EUR	60	75.00 %	FC ¹⁾
MM Board UK Limited, Theale-Reading (GBR)	GBP	1,000	100.00 %	FC ¹⁾	MM Board UK Limited, Theale-Reading (GBR)	GBP	1,000	100.00 %	FC ¹⁾
MM Board & Paper Sales GmbH, Vienna (AUT)	EUR	35	100.00 %	FC ¹⁾	MM Board & Paper Sales GmbH, Vienna (AUT)	EUR	35	100.00 %	FC ¹⁾
MM Karton Russia LLC, Moscow (RUS)	RUB	14,290	100.00 %	FC ¹⁾	MM Karton Russia LLC, Moscow (RUS)	RUB	14,290	100.00 %	FC ¹⁾
MM Shared Services Sp.z.o.o., Warsaw (POL)	PLN	5,662	100.00 %	FC ¹⁾	MM Shared Services Sp.z.o.o., Warsaw (POL)	PLN	5,662	100.00 %	FC ¹⁾
Varsity Packaging Limited, Theale-Reading (GBR)	GBP	300	100.00 %	FC ¹⁾	Varsity Packaging Limited, Theale-Reading (GBR)	GBP	300	100.00 %	FC ¹⁾

2022					2021				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
MM PACKAGING					MM PACKAGING				
-	-	-	-	-	Al-Ekbal Printing & Packaging Co. i. l., Amman (JOR)	JOD	3,500	86.94 %	FC ⁽¹⁾
Beaucrest Limited, Hong Kong (HKG)	HKD	1	100.00 %	NC ⁽⁴⁾	Beaucrest Limited, Hong Kong (HKG)	HKD	1	100.00 %	NC ⁽⁴⁾
C. P. Schmidt Verpackungs-Werk Beteiligungsgesellschaft mbH, Kaiserslautern (DEU)	EUR	180	100.00 %	FC ⁽¹⁾	C. P. Schmidt Verpackungs-Werk Beteiligungsgesellschaft mbH, Kaiserslautern (DEU)	EUR	180	100.00 %	FC ⁽¹⁾
Danubia International, Kiev (UKR)	UAH	1	100.00 %	NC ⁽⁴⁾	Danubia International, Kiev (UKR)	UAH	1	100.00 %	NC ⁽⁴⁾
Gundlach GmbH, Bielefeld (DEU)	EUR	52	100.00 %	FC ⁽¹⁾	Gundlach GmbH, Bielefeld (DEU)	EUR	52	100.00 %	FC ⁽¹⁾
MM Packaging Solutions Ibérica S. L. U, Valencia (ESP)	EUR	7,500	100.00 %	FC ⁽¹⁾	Mayr-Melnhof Packaging Iberica SL, Valencia (ESP)	EUR	7,500	100.00 %	FC ⁽¹⁾
MM Packaging GmbH /Jordan PSC, Amman (JOR)	JOD	5,000	100.00 %	FC ⁽¹⁾	Mayr-Melnhof Packaging International GmbH /Jordan PSC, Amman (JOR)	JOD	5,000	100.00 %	FC ⁽¹⁾
Mayr-Melnhof Packaging Marinetti Limitada, Santiago de Chile (CHL)	CLP	5,000	100.00 %	FC ⁽¹⁾	Mayr-Melnhof Packaging Marinetti Limitada, Santiago de Chile (CHL)	CLP	5,000	100.00 %	FC ⁽¹⁾
Mayr-Melnhof Printing and Packaging Tehran Company, Private Joint Stock, Tehran (IRN)	IRR	514,800,000	100.00 %	FC ⁽¹⁾	Mayr-Melnhof Printing and Packaging Tehran Company, Private Joint Stock, Tehran (IRN)	IRR	514,800,000	99.56 %	FC ⁽¹⁾
MM Bangor Ltd., Bradford (GBR)	GBP	0	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Clayton LLC, Wilmington (USA)	USD	181	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM C. P. Schmidt GmbH, Kaiserslautern (DEU)	EUR	3,000	100.00 %	FC ⁽¹⁾	MM C. P. Schmidt GmbH, Kaiserslautern (DEU)	EUR	3,000	100.00 %	FC ⁽¹⁾
MM Eson Pac AB, Veddige (SWE)	SEK	10,000	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Eson Pac Denmark A/S, Taastrup (DEN)	DKK	6,000	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Eson Pac International AB, Veddige (SWE)	SEK	89,2	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Eson Pac Norway AS, Sarpsborg (NOR)	NOK	4,100	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Fiber Packaging S. A. U., Madrid (ESP)	EUR	1,920	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Fiber Packaging Ireland Limited, Dublin (IRL)	EUR	378	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Graphia Beteiligungs- und Verwaltungs GmbH, Bielefeld (DEU)	EUR	5,538	100.00 %	FC ⁽¹⁾	MM Graphia Beteiligungs- und Verwaltungs GmbH, Bielefeld (DEU)	EUR	5,538	100.00 %	FC ⁽¹⁾
MM Graphia Bielefeld GmbH, Bielefeld (DEU)	EUR	526	100.00 %	FC ⁽¹⁾	MM Graphia Bielefeld GmbH, Bielefeld (DEU)	EUR	526	100.00 %	FC ⁽¹⁾

2022					2021				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
MM Graphia GmbH, Bielefeld (DEU)	EUR	25	100.00 %	FC ⁽¹⁾	MM Graphia GmbH, Bielefeld (DEU)	EUR	25	100.00 %	FC ⁽¹⁾
MM Graphia Izmir Karton sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	24,613	100.00 %	FC ⁽¹⁾	MM Graphia Izmir Karton sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	24,613	100.00 %	FC ⁽¹⁾
MM Graphia Trier GmbH, Trier (DEU)	EUR	3,500	100.00 %	FC ⁽¹⁾	MM Graphia Trier GmbH, Trier (DEU)	EUR	3,500	100.00 %	FC ⁽¹⁾
MM Gravure Trier GmbH, Trier (DEU)	EUR	7,000	100.00 %	FC ⁽¹⁾	MM Gravure Trier GmbH, Trier (DEU)	EUR	7,000	100.00 %	FC ⁽¹⁾
MM Innovaprint GmbH, Bielefeld (DEU)	EUR	500	100.00 %	FC ⁽¹⁾	MM Innovaprint GmbH, Bielefeld (DEU)	EUR	500	100.00 %	FC ⁽¹⁾
MM Lublin Sp.zo.o., Lublin (POL)	PLN	53,500	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Nekicesa S.L.U., Madrid (ESP)	EUR	18,881	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Neupack GmbH, Reichenau/Rax (AUT)	EUR	1,820	100.00 %	FC ⁽¹⁾	MM Neupack GmbH, Reichenau/Rax (AUT)	EUR	1,820	100.00 %	FC ⁽¹⁾
MM Newport Ltd., Bradford (GBR)	GBP	1,231	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Packaging Behrens GmbH, Alfeld (Leine) (DEU)	EUR	3,000	100.00 %	FC ⁽¹⁾	MM Packaging Behrens GmbH, Alfeld (Leine) (DEU)	EUR	3,000	100.00 %	FC ⁽¹⁾
MM Packaging Beteiligungs- und Verwaltungs GmbH, Bielefeld (DEU)	EUR	500	100.00 %	FC ⁽¹⁾	MM Packaging Beteiligungs- und Verwaltungs GmbH, Bielefeld (DEU)	EUR	500	100.00 %	FC ⁽¹⁾
MM Packaging Caesar GmbH, Traben-Trarbach (DEU)	EUR	3,000	100.00 %	FC ⁽¹⁾	MM Packaging Caesar GmbH, Traben-Trarbach (DEU)	EUR	3,000	100.00 %	FC ⁽¹⁾
MM Packaging Colombia S.A.S., Santiago de Cali (COL)	COP	84,000,000	100.00 %	FC ⁽¹⁾	MM Packaging Colombia S.A.S., Santiago de Cali (COL)	COP	84,000,000	100.00 %	FC ⁽¹⁾
MM Packaging Deeside Limited, Deeside (GBR)	GBP	9,700	100.00 %	FC ⁽¹⁾	MM Packaging UK Limited, Deeside (GBR)	GBP	9,700	100.00 %	FC ⁽¹⁾
MM Packaging Deutschland GmbH, Bielefeld (DEU)	EUR	26	100.00 %	FC ⁽¹⁾	MM Packaging Deutschland GmbH, Bielefeld (DEU)	EUR	26	100.00 %	FC ⁽¹⁾
MM PACKAGING GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC ⁽¹⁾	MM PACKAGING GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC ⁽¹⁾
MM PACKAGING France S.A.S., Monéteau (FRA)	EUR	7,289	100.00 %	FC ⁽¹⁾	MM PACKAGING France S.A.S., Monéteau (FRA)	EUR	7,289	100.00 %	FC ⁽¹⁾
MM Packaging Italy S.r.l., Podenzano (ITA)	EUR	6,600	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Packaging Leeuwarden B.V., Leeuwarden (NLD)	EUR	18	100.00 %	FC ⁽¹⁾	-	-	-	-	-
MM Packaging Polska Sp.zo.o., Bydgoszcz (POL)	PLN	71,500	100.00 %	FC ⁽¹⁾	MM Packaging Polska Sp.zo.o., Bydgoszcz (POL)	PLN	71,500	100.00 %	FC ⁽¹⁾
MM Packaging Puerto Rico Inc., Guaynabo (PRI)	USD	1	100.00 %	FC ⁽¹⁾	-	-	-	-	-
-	-	-	-	-	MM Polygrafoformlenie Packaging LLC, St. Petersburg (RUS)	RUB	565,851	100.00 %	FC ⁽¹⁾
-	-	-	-	-	MM Polygrafoformlenie Rotogravure LLC, St. Petersburg (RUS)	RUB	33,000	100.00 %	FC ⁽¹⁾

2022					2021				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
MM Packaging Romania S.R.L., Blejoi (ROU)	RON	5,504	100.00 %	FC ¹⁾	MM Packaging Romania S.R.L., Blejoi (ROU)	RON	5,504	100.00 %	FC ¹⁾
MM Packaging Sarreguemines S.A.R.L., Sarreguemines (FRA)	EUR	7,472	100.00 %	FC ¹⁾	-	-	-	-	-
MM Packaging Schilling GmbH, Heilbronn (DEU)	EUR	2,500	100.00 %	FC ¹⁾	MM Packaging Schilling GmbH, Heilbronn (DEU)	EUR	2,500	100.00 %	FC ¹⁾
MM Packaging & Securing Solutions Limited, Bradford (GBR)	GBP	70,149	100.00 %	FC ¹⁾	-	-	-	-	-
MM Packaging UK Limited, Bradford (GBR)	GBP	139,391	100.00 %	FC ¹⁾	-	-	-	-	-
MM Packaging Ukraine LLC, Cherkassy (UKR)	UAH	56,896	100.00 %	FC ¹⁾	MM Packaging Ukraine LLC, Cherkassy (UKR)	UAH	56,896	100.00 %	FC ¹⁾
MM Packaging Vidon Limited Liability Company, Ho Chi Minh City (VNM)	VND	280,000,000	100.00 %	FC ¹⁾	MM Packaging Vidon Limited Liability Company, Ho Chi Minh City (VNM)	VND	280,000,000	100.00 %	FC ¹⁾
MM Premium Vienna GmbH, Vienna (AUT)	EUR	3,050	100.00 %	FC ¹⁾	MM Premium Vienna GmbH, Vienna (AUT)	EUR	3,050	100.00 %	FC ¹⁾
MM Packaging US Inc., Wilmington (USA)	USD	5	100.00 %	FC ¹⁾	-	-	-	-	-
MM Wolfen GmbH, Bitterfeld-Wolfen OT Wolfen (DEU)	EUR	25	100.00 %	FC ¹⁾	-	-	-	-	-
MMP Neupack Polska Sp.z.o.o., Bydgoszcz (POL)	PLN	28,700	100.00 %	FC ¹⁾	MMP Neupack Polska Sp.z.o.o., Bydgoszcz (POL)	PLN	28,700	100.00 %	FC ¹⁾
MMP Packetis SAS, Chazelles (FRA)	EUR	1,677	100.00 %	FC ¹⁾	MMP Packetis SAS, Chazelles (FRA)	EUR	1,677	100.00 %	FC ¹⁾
MMP Premium Polska Sp.z.o.o., Bydgoszcz (POL)	PLN	26,000	100.00 %	FC ¹⁾	MMP Premium Polska Sp.z.o.o., Bydgoszcz (POL)	PLN	26,000	100.00 %	FC ¹⁾
MMP Premium Printing Center GmbH, Trier (DEU)	EUR	500	100.00 %	FC ¹⁾	MMP Premium Printing Center GmbH, Trier (DEU)	EUR	500	100.00 %	FC ¹⁾
MMP Premium SAS, Ancenis (FRA)	EUR	6,686	100.00 %	FC ¹⁾	MMP Premium SAS, Ancenis (FRA)	EUR	6,686	100.00 %	FC ¹⁾
MPC Besitzgesellschaft mbH, Traun (AUT)	EUR	3,700	100.00 %	FC ¹⁾	MPC Besitzgesellschaft mbH, Traun (AUT)	EUR	3,700	100.00 %	FC ¹⁾
-	-	-	-	-	OOO TANN Nevskiy, Pskov (RUS)	RUB	230,000	100.00 %	FC ¹⁾
PacProject GmbH, Hamburg (DEU)	EUR	26	100.00 %	FC ¹⁾	PacProject GmbH, Hamburg (DEU)	EUR	26	100.00 %	FC ¹⁾
Private Joint Stock Company "Graphia Ukraina", Cherkassy (UKR)	UAH	5,880	94.78 %	FC ¹⁾	Private Joint Stock Company "Graphia Ukraina", Cherkassy (UKR)	UAH	5,880	94.78 %	FC ¹⁾
-	-	-	-	-	R + S Stanzformen GmbH, Niederdorfelden (DEU)	EUR	260	100.00 %	FC ¹⁾
Société Tunisienne des Emballages Modernes, Tunis (TUN)	TND	9,640	45.00 %	EC ³⁾	Société Tunisienne des Emballages Modernes, Tunis (TUN)	TND	9,640	45.00 %	EC ³⁾

2022					2021				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
Superpak Ambalaj sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	116,331	100.00 %	FC ¹⁾	Superpak Ambalaj sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	116,331	100.00 %	FC ¹⁾
TANN ARGENTINA S. A., Buenos Aires (ARG)	ARS	12	100.00 %	NC ⁴⁾	TANN ARGENTINA S. A., Buenos Aires (ARG)	ARS	12	100.00 %	NC ⁴⁾
Tann Beteiligungs GmbH, Traun (AUT)	EUR	35	100.00 %	FC ¹⁾	Tann Beteiligungs GmbH, Traun (AUT)	EUR	35	100.00 %	FC ¹⁾
TANN Colombiana S. A. S. i. l., La Ceja/Medellin (COL)	COP	351,000	100.00 %	FC ¹⁾	TANN Colombiana S. A. S. i. l., La Ceja/Medellin (COL)	COP	351,000	100.00 %	FC ¹⁾
TANN GERMANY GmbH, Glinde (DEU)	EUR	512	100.00 %	FC ¹⁾	TANN GERMANY GmbH, Glinde (DEU)	EUR	512	100.00 %	FC ¹⁾
TANN Holding GmbH, Traun (AUT)	EUR	70	100.00 %	FC ¹⁾	TANN Holding GmbH, Traun (AUT)	EUR	70	100.00 %	FC ¹⁾
TANN Invest GmbH, Traun (AUT)	EUR	35	100.00 %	FC ¹⁾	TANN Invest GmbH, Traun (AUT)	EUR	35	100.00 %	FC ¹⁾
TANN Longyou Ltd., Longyou (Zhejiang) (CHN)	CNY	97,245	95.69 %	FC ¹⁾	TANN Longyou Ltd., Longyou (Zhejiang) (CHN)	CNY	97,245	95.69 %	FC ¹⁾
TANN PAPER Limited, Woodstock (New Brunswick) (CAN)	CAD	600	100.00 %	FC ¹⁾	TANN PAPER Limited, Woodstock (New Brunswick) (CAN)	CAD	600	100.00 %	FC ¹⁾
TANN Philippines, Inc., Santo Tomas (Batangas) (PHL)	PHP	470,000	100.00 %	FC ¹⁾	TANN Philippines, Inc., Santo Tomas (Batangas) (PHL)	PHP	470,000	100.00 %	FC ¹⁾
TANN Service GmbH, Traun (AUT)	EUR	35	100.00 %	FC ¹⁾	TANN Service GmbH, Traun (AUT)	EUR	35	100.00 %	FC ¹⁾
TANN Shanghai Co., Ltd., Shanghai (CHN)	CNY	31,522	51.00 %	FC ¹⁾	TANN Shanghai Co., Ltd., Shanghai (CHN)	CNY	31,522	51.00 %	FC ¹⁾
TANNPAPIER GmbH, Traun (AUT)	EUR	1,000	100.00 %	FC ¹⁾	TANNPAPIER GmbH, Traun (AUT)	EUR	1,000	100.00 %	FC ¹⁾
TBG Development Philippines, Inc., Makati City (Metro Manila) (PHL)	PHP	53,320	100.00 %	FC ¹⁾	TBG Development Philippines, Inc., Makati City (Metro Manila) (PHL)	PHP	53,320	100.00 %	FC ¹⁾
VTV Verpackungstechnische Verfahren GmbH, Kaiserslautern (DEU)	EUR	200	100.00 %	FC ¹⁾	VTV Verpackungstechnische Verfahren GmbH, Kaiserslautern (DEU)	EUR	200	100.00 %	FC ¹⁾
Zhejiang TF Special Papers Co., Ltd., Quzhou City (CHN)	CNY	50,000	40.00 %	EC ³⁾	Zhejiang TF Special Papers Co., Ltd., Quzhou City (CHN)	CNY	50,000	40.00 %	EC ³⁾

The voting rights are equal to the ownership interests. The parent company does not hold any preferred interests in the subsidiary.

¹⁾ FC ... fully consolidated company

²⁾ NE ... joint venture or associated company, but not consolidated at equity due to immateriality

³⁾ EC ... consolidated at equity

⁴⁾ NC ... not consolidated due to immateriality

34 BOARD MEMBERS

During the financial year 2022, the Board Members were as follows:

Management Board

Peter Oswald (Chairman)

Franz Hiesinger (Member of the Management Board)

Andreas Blaschke (Member of the Management Board until October 30, 2022)

Supervisory Board

Rainer Zellner (Chairman)

Johannes Goess-Saurau (1st Deputy Chairman)

Nikolaus Ankershofen (2nd Deputy Chairman)

Alexander Leeb (Member of the Supervisory Board)

Georg Mayr-Melnhof (Member of the Supervisory Board)

Ferdinand Mayr-Melnhof-Saurau (Member of the Supervisory Board)

Klaus Rabel (Member of the Supervisory Board)

Franz Rappold (Member of the Supervisory Board until April 26, 2022)

Andreas Hemmer (Employee Representative)

Gerhard Novotny (Employee Representative)

Vienna, March 13, 2023

The Management Board

Peter Oswald m. p.

Franz Hiesinger m. p.

Auditor's Report

Report on the Consolidated Financial Statements

Audit Opinion

We have audited the consolidated financial statements of Mayr-Melnhof Karton Aktiengesellschaft, Vienna, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at December 31, 2022, the consolidated income statement, the consolidated comprehensive income statement, the consolidated statement of changes in equity and the consolidated cash flow statement for the financial year then ended, and the notes to the consolidated financial statements.

In our opinion, the accompanying consolidated financial statements comply with legal requirements and give a true and fair view of the financial position of the Group as at December 31, 2022, and of its financial performance and cash flows for the financial year then ended in accordance with International Financial Reporting Standards as adopted by the EU (IFRSs) and the additional regulations of section 245 a Austrian Commercial Code.

Basis for Opinion

We conducted our audit in accordance with Regulation (EU) No. 537/2014 (hereinafter EU Regulation) and Austrian Generally Accepted Standards on Auditing. Those standards require the application of the International Standards on Auditing (ISAs). Our responsibilities under those provisions and standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group in accordance with Austrian Generally Accepted Accounting Principles and professional requirements, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained until the date of the auditor's report is sufficient and appropriate to provide a basis for our opinion by this date.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the financial year. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

We have structured key audit matters as follows:

- Description
- Audit approach and key observations
- Audit approach and key observations

1. Business combinations – identification and valuation of assets and liabilities acquired in the course of the acquisition of Essentra Packaging

Description

On October 2, 2022, the divisional holding company MM PACKAGING GmbH, Vienna, concluded the acquisition of Essentra Packaging, which was agreed in June 2022, after consent of all relevant competition authorities. Essentra Packaging operates 21 production sites in 10 countries, located in Europe and America.

The consideration transferred at the acquisition date amounted to thous. EUR 325,135. Taking into account the acquired net assets in the amount of thous. EUR 241,786, this resulted in a goodwill in the amount of thous. EUR 83,349.

In accordance with the regulations of IFRS 3, the identifiable assets acquired and liabilities assumed were recognized at fair value at the acquisition date, respectively. The identification and valuation of the net assets acquired is complex and requires a series of discretionary decisions and assumptions. In particular, the valuation of intangible assets, buildings and machinery acquired is based to a considerable extent on asset specific assumptions requiring the Management Board to make discretionary decisions and estimates. To determine the fair values of the identifiable assets and liabilities, the Management Board consulted external experts. The purchase price allocation has not been finalized yet.

For the consolidated financial statements, there is the risk that the assets acquired and liabilities assumed in the course of the acquisition have been identified inaccurately or have not been valued adequately due to the size and complexity of the business combination. Moreover, there is the risk that the disclosures required in the notes to the consolidated financial statements pursuant to IFRS 3 are incomplete and incorrect.

Audit approach and key observations

In order to gain an understanding of the acquisition, we read the purchase and sale agreements, including the supplementary agreements, entered into by the selling parties and MM PACKAGING GmbH, Vienna. In accordance with the relevant regulations of IFRS 3 “Business Combinations”, we have evaluated the provisions agreed in these agreements with regard to the recognition in the consolidated balance sheet and the disclosures in the notes to the consolidated financial statements as at December 31, 2022.

We critically assessed the expertise, skills and objectivity of the experts engaged by the Management Board. Together with our valuation experts, we evaluated whether the significant assumptions and input parameters are appropriate (in particular the assumptions with regard to the growth rate, the discount rate used, the assumptions on the quality of land and buildings relevant to the valuation, the assumptions on the quality and replacement cost of acquired machinery as well as the assumptions on the estimated churn rate of the identified customer bases) and whether the assets and liabilities identified in the course of the purchase price allocation are complete and valued adequately. We checked whether the valuation methods applied are in accordance with the valuation principles of IFRS 3 in conjunction with the relevant regulations of IFRS 13.

Finally, we evaluated whether the disclosures on the business combination in the notes to the consolidated financial statements as at December 31, 2022 are complete and adequate.

The approach serving as a basis for the identification and valuation of the net assets acquired is adequate and complies with the accounting principles that are to be applied. The significant assumptions made by the Management Board and the input parameters applied are reasonable. The provisional presentation pursuant to IFRS 3 paragraph 45 of the business combination in the notes to the consolidated financial statements as at December 31, 2022 complies with the requirements of IFRS 3. The Management Board disclosed the fact that the purchase price allocation has not been finalized yet; the provisional results of the purchase price allocations take into account all material information on relevant facts and circumstances at the acquisition date. Based on current information, no material retrospective adjustments to the purchase price allocations are expected.

Reference to related disclosures

Related disclosures with regard to this key audit matter are to be found in the notes to the consolidated financial statements as at December 31, 2022 under note 5 – “Changes in the consolidated companies and other significant events” in section 5.1 – “Changes in the consolidated companies in 2022”, under note 7 “Financial instruments disclosures” in section 7.4 – “Capital management” as well as under note 31 “Notes on the consolidated cash flow statements”.

2. Recoverability of goodwill of the operating segments MM Board & Paper and MM Packaging as well as recoverability of the carrying amounts of the cash generating units or group of assets

Description

Under the item “intangible assets including goodwill”, the consolidated financial statements of Mayr-Melnhof Karton Aktiengesellschaft, Vienna, include goodwill in the amount of thous. EUR 748,821, representing approximately 15.5 % of total assets of the Group. Thous. EUR 433,557 of this item relates to the MM Board & Paper goodwill, which particularly results from the acquisition of the production sites Koktamills (Finland) and Kwidzyn (Poland) in the financial year 2021, and thous. EUR 315,264 relates to the MM Packaging goodwill, which particularly results from the acquisition of Essentra Packaging in this financial year. In order to determine a potential need for impairment, management performs a mandatory impairment test of goodwill each year at the reporting date or if there is any indication that an asset may be impaired. Moreover, the consolidated financial statements as at December 31, 2022 include other intangible assets in the amount of thous. EUR 268,296 and property, plant and equipment in the amount of thous. EUR 1,813,214. In case of any indications in this regard pursuant to IAS 36, management evaluates whether the carrying amounts of a cash generating unit may be impaired.

The impairment of goodwill is tested at the level of the respective operating segment MM Board & Paper or MM Packaging to which the goodwill pertains. In the course of the impairments test an impairment loss on goodwill is recognized if the carrying amount of the operating segment as cash generating unit exceeds the respective recoverable amount. Moreover, an impairment loss is recognized to the extent that the carrying amount of the asset, the group of assets or the cash generating unit exceeds the recoverable amount. The recoverable amount of an asset, a group of assets or a cash generating unit is the higher of the value in use and the fair value less cost of disposal. When evaluating whether there are any indications for impairment, external and internal sources of information are to be taken into account. In doing so, expectations regarding the future market development, assumptions regarding the development of macroeconomic factors as well as the expected development of costs of raw materials (especially wood, recovered paper) and the increasing cost of energy on the business activities in the segment are also taken into account. The Group determines the value in use by means of a discounted cash flow method (DCF method). In addition to forecasts of future cash flows (Free Cash Flows) before tax, particularly the capitalization rate (WACC) is also to be classified as such that it requires significant discretionary decisions. Discounting is made based on the weighted average capital costs of the operating segments or the cash generating unit of the operating segment.

As already slight changes in the capitalization rate or in future cash flows may have a significant impact on the recoverable amount, there are major estimation uncertainties with regard to the determination of the value in use and thus the recoverable amount of the goodwill, the group of assets or the carrying amount of the cash generating units. In case there are any indications for a potential need for impairment and the value in use is below the carrying amount of the asset, a group of assets or a cash generating unit, management determines the fair value less cost of disposal of the asset, the group of assets or the cash generating unit together with external independent experts, allocating a calculated impairment at the level of the cash generating unit to the assets pertaining to it up to a maximum of their respective fair value less cost of disposal.

No impairment of goodwill or carrying amounts of cash generating units were recognized in the financial year 2022.

Valuation of the recoverable amount is complex, requires relevant expertise and depends on significant assumptions and discretionary decisions made by management to a considerable extent. For the consolidated financial statements, there is the risk that the valuation assumptions serving as a basis for the impairment test – in case the recoverable amounts of the assets, the group of assets or the cash generating unit are not determined appropriately – may result in an unidentified impairment not recognized in the consolidated balance sheet.

Audit approach and key observations

We examined the indications for a possible impairment observed by the Management Board and checked whether there were any indications that the cash generating units identified in this process are at risk and may be impaired.

In the course of our audit and by partially involving our valuation specialists we verified among others the methodical approach in identifying indications for a need for impairment and in performing the impairment test. Moreover, we ascertained the appropriateness of the significant assumptions and input parameters made with regard to the planned development of future cash flows before tax as well as the valuation of the values in use and, where relevant, the fair values less cost of disposal, and evaluated whether all relevant internal and external sources of information were taken into account by management. The future expected cash flows were derived from the budget for 2023 of the segments MM Board & Paper and MM Packaging which was adopted by management and approved by the Supervisory Board. In addition, we evaluated the appropriateness of the calculation especially by reconciliation with general and industry-specific market expectations. In this context, we also verified the Management Boards' estimates regarding the development of the increased raw material and energy prices on the business activities and verified their consideration in determining the future cash flows. Knowing that already slight changes in the discount rate may have a significant impact on the recoverable amount determined in this way, we assessed these changes and how they were derived both with regard to the individual assumptions and parameters based on available market data and considering a critical overall evaluation in comparison with similar companies in the packaging industry. We checked the valuation models used in determining the values in use for mathematical accuracy and consistency with the valuation principles of the relevant IFRS regulations.

To take into account the existing forecast uncertainties, we verified the sensitivity analyses prepared by management. In doing so, we noted that, considering the information available, the goodwill of the operating segments MM Board & Paper and MM Packaging as well as the carrying amounts of the cash generating units were sufficiently covered by the discounted future cash flows.

Finally, we evaluated whether the disclosures in the notes to the consolidated financial statements on the recoverability of goodwill and of the carrying amounts of the cash generating units are complete and adequate. The carrying amounts of goodwill and of the cash generating units that were identified by management for impairment testing are complete and adequate. The significant assumptions and discretionary decisions made in this context are plausible and within a reasonable range. The disclosures in the notes to the consolidated financial statements as at December 31, 2022 with regard to the recoverability of goodwill and of the carrying amounts of the cash generating units are complete and proper.

Reference to related disclosures

Related disclosures with regard to this key audit matter are to be found in the notes to the consolidated financial statements as at December 31, 2022 under note 6 – “Development of fixed assets” in section 6.1 – “Property, plant and equipment including leases”, section 6.2 – “Intangible assets including goodwill” and in section 6.3 – “Recoverability of non-current assets”.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the management report for the Group and our auditor’s report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor’s report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU (IFRSs) and the additional regulations of section 245 a Austrian Commercial Code, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Audit Committee is responsible for overseeing the Group’s financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the EU Regulation and with Austrian Generally Accepted Standards on Auditing, which require the application of ISAs, will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the EU Regulation and with Austrian Generally Accepted Standards on Auditing, which require the application of ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit.

In addition, the following applies:

We identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risks of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

We conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

We evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with all relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

Comments on the Management Report for the Group

Pursuant to Austrian Generally Accepted Accounting Principles, the management report for the Group is to be audited as to whether it is consistent with the consolidated financial statements and as to whether the management report for the Group was prepared in accordance with the applicable legal regulations.

Management is responsible for the preparation of the management report for the Group in accordance with Austrian Generally Accepted Accounting Principles.

We conducted our audit in accordance with Austrian standards on auditing for the audit of the management report for the Group.

Opinion

In our opinion, the management report for the Group was prepared in accordance with the applicable legal regulations, comprising the details in accordance with section 243 a Austrian Commercial Code, and is consistent with the consolidated financial statements.

Statement

Based on the findings during the audit of the consolidated financial statements and due to the obtained understanding concerning the Group and its circumstances no material misstatements in the management report for the Group came to our attention.

Additional Information in Accordance with Article 10 of the EU Regulation

We were elected as statutory auditor at the ordinary general meeting dated April 27, 2022 and subsequently appointed by the Supervisory Board. We have audited the Company since the financial year 2019.

We confirm that the audit opinion in the “Report on the Consolidated Financial Statements” section is consistent with the additional report to the Audit Committee referred to in Article 11 of the EU Regulation.

We declare that no prohibited non-audit services (Article 5 para. 1 of the EU Regulation) were provided by us and that we remained independent of the audited company in conducting the audit.

Responsible Engagement Partner

Responsible for the proper performance of the engagement is Mr. Frédéric Vilain, Austrian Certified Public Accountant.

Vienna, March 13, 2023

PwC Wirtschaftsprüfung GmbH

Frédéric Vilain m. p.
Austrian Certified Public Accountant

This report is a translation of the original report in German, which is solely valid. Publication and sharing with third parties of the consolidated financial statements together with our auditor’s report is only allowed if the consolidated financial statements and the management report for the Group are identical with the German audited version. This auditor’s report is only applicable to the German and complete consolidated financial statements with the management report for the Group. For deviating versions, the provisions of section 281 para. 2 Austrian Commercial Code (UGB) apply.

We draw attention to the fact that the English translation of this auditor’s report according to section 274 of the Austrian Commercial Code (UGB) is presented for the convenience of the reader only and that the German wording is the only legally binding version.

Statement of the Management Board

according to Section 124 of the Austrian Stock Exchange Act

We confirm to the best of our knowledge that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position, and profit or loss of the Group as required by the applicable accounting standards and that the Group management report gives a true and fair view of the development and performance of the business and the position of the Group together with a description of the principal risks and uncertainties the Group faces.

Vienna, March 13, 2023

The Management Board

Peter Oswald m. p.
Chairman of the
Management Board

Franz Hiesinger m. p.
Member of the
Management Board

Development in the 4th Quarter 2022

Quarterly Overview

Mayr-Melnhof Group (IFRS, unaudited)

(consolidated, in millions of EUR)	1 st Quarter 2022	2 nd Quarter 2022	3 rd Quarter 2022	4 th Quarter 2022	4 th Quarter 2021	+/-
Sales	1,060.4	1,158.1	1,231.9	1,231.7	962.6	+ 28.0 %
EBITDA	155.0	220.8	215.4	138.7	138.0	+ 0.5 %
Operating profit	111.1	173.9	167.2	58.1	92.4	- 37.1 %
Operating margin (%)	10.5 %	15.0 %	13.6 %	4.7 %	9.6 %	
Profit before tax	103.6	166.6	146.6	50.1	82.1	- 39.0 %
Income tax expense	(24.1)	(40.3)	(37.2)	(20.1)	(19.8)	
Profit for the period	79.5	126.3	109.4	30.0	62.3	- 51.8 %
Net profit margin (%)	7.5 %	10.9 %	8.9 %	2.4 %	6.5 %	
Earnings per share (in EUR)	3.95	6.29	5.43	1.52	3.09	
Cash flow from operating activities	49.3	89.0	117.4	44.0	104.0	

The development of the 4th quarter was characterized by a strong decline in demand in the MM Board & Paper division due to high customer inventories as well as by a stable demand in the MM Packaging division. Consolidated sales of EUR 1,231.7 million were mainly price- and acquisition-related above last year's period (4th quarter 2021: EUR 962.6 million).

The Group's operating profit decreased to EUR 58.1 million (4th quarter 2021: EUR 92.4 million) due to market conditions and one-off effects. The operating margin totaled 4.7 % (4th quarter 2021: 9.6 %). Profit before tax amounted to EUR 50.1 million (4th quarter 2021: EUR 82.1 million), profit for the period to EUR 30.0 million (4th quarter 2021: EUR 62.3 million).

MM Board & Paper recorded a capacity utilization of 75 % after 97 % in the 4th quarter of the previous year owing to necessary market-related downtimes. Due to acquisitions, the operating profit of the division reached EUR 62.8 million after EUR 33.4 million, whereas one-off expenses resulting from the concentration of production on the larger machine at the Kolicovo mill had to be recognized. The operating margin reached 10.1 % (4th quarter 2021: 5.9 %).

With a solid volume development, the operating profit of MM Packaging amounted to EUR -4.7 million (4th quarter 2021: EUR 59.0 million) due to one-off effects. In particular, expenses in connection with the exit from the Russian market as well as structural adjustment measures led to a negative effect on results. The operating margin was -0.7 % (4th quarter 2021: 13.7 %).

Glossary

Definition of Financial Indicators

EBITDA (Earnings before interest, income taxes, depreciation and amortization)

Operating profit plus depreciation, amortization and impairment of property, plant and equipment, and intangible assets.

EBITDA margin

EBITDA divided by sales.

Employees

Employees at the end of the year, including apprentices and part-time employees on a pro-rata basis.

Total equity and non-current liabilities to PPE

The sum of total equity and non-current liabilities divided by property, plant and equipment.

Equity ratio

Total equity divided by total assets.

Market capitalization

Number of shares outstanding multiplied with the closing share price as of the balance sheet date.

Net debt/Net liquidity

The sum of current and non-current interest-bearing financial liabilities including lease liabilities according to IFRS 16 less cash and cash equivalents.

In case the sum of cash and cash equivalents exceeds financial liabilities, there is net liquidity.

Net debt/EBITDA

Net debt/net liquidity divided by EBITDA.

Net debt/equity

Net debt/net liquidity divided by total equity at year-end.

Net profit margin

Profit for the year divided by sales.

Operating margin

Operating profit divided by sales.

Property, plant and equipment to total assets

Property, plant and equipment divided by total assets.

Return on assets (ROA)

The sum of profit for the year excluding interest expense divided by average total assets.

Return on capital employed (ROCE)

Operating profit divided by the sum of average total equity, average current and non-current interest-bearing financial liabilities including lease liabilities according to IFRS 16 less average cash and cash equivalents.

Return on equity (ROE)

Profit for the year divided by average total equity.

Return on investment (ROI)

The sum of profit for the year excluding interest expenses divided by the sum of average total equity plus average current and non-current interest-bearing financial liabilities including lease liabilities according to IFRS 16

Working Capital

Total current assets less total current liabilities (excluding revolving bank credits).

Group Key Indicators

consolidated (in millions of EUR)	2018	2019	2020	2021	2022
Development of sales					
Total sales	2,788.1	2,976.9	2,941.6	3,524.5	5,315.7
less intersegment sales between the divisions	(108.7)	(111.8)	(116.6)	(133.0)	(236.6)
less intersegment sales in the divisions	(341.7)	(320.7)	(296.6)	(321.8)	(397.1)
Consolidated sales	2,337.7	2,544.4	2,528.4	3,069.7	4,682.1
Earnings data					
Net value added	670.5	756.1	756.5	805.7	1,163.8
EBITDA	324.4 ³⁾	389.6	398.9	421.0	729.9
Operating profit	217.1	255.3	231.4	269.6	510.3
Profit before tax	217.9	251.1	222.1	244.5	466.9
Profit for the year	164.2	190.2	162.2	190.7	345.2
Cash flow from operating activities	250.1	331.4	318.2	269.8	299.7
Capital expenditures/depreciation					
Capital expenditures (CAPEX)	124.4	151.0	157.6	257.8	345.1
Depreciation and amortization ¹⁾	107.3	134.3	167.5	151.4	219.6
Employees					
	9,445	10,014	9,938	12,492	15,640
Profitability indicators					
Return on equity	12.1 %	13.1 %	10.6 %	11.9 %	19.1 %
Return on assets	8.5 %	9.0 %	7.1 %	6.7 %	8.6 %
Net profit margin	7.0 %	7.5 %	6.4 %	6.2 %	7.4 %
EBITDA margin	13.9 %	15.3 %	15.8 %	13.7 %	15.6 %
Operating margin	9.3 %	10.0 %	9.2 %	8.8 %	10.9 %
Return on capital employed	16.2 % ³⁾	15.4 % ³⁾	13.7 %	12.8 %	16.3 %
Return on investment	11.0 %	11.7 %	9.4 %	8.8 %	11.1 %
Balance sheet indicators					
Equity ratio	67.0 %	62.3 %	64.5 %	41.4 %	40.7 %
Property, plant and equipment to total assets	41.3 %	42.7 %	41.5 %	37.1 %	37.6 %
Total equity and non-current liabilities to property, plant and equipment	2.0	1.9	2.0	2.2	2.1
Working capital	698.8	523.9	584.4	809.3	1,032.4
Financial indicators					
Net debt (-)/net liquidity (+)	49.4	(218.6)	(122.2)	(1,063.5)	(1,481.5)
Net debt/EBITDA	(0.2)	0.6	0.3	2.1 ⁴⁾	2.0 ⁴⁾
Net debt/equity	0.0	0.1	0.1	0.6	0.8
Share performance indicators					
Market capitalization ²⁾	2,200	2,392	3,300	3,532	3,024
Earnings per share (in EUR)	8.18	9.49	8.06	9.46	17.19
Dividend per share (in EUR)	3.20	3.20	3.20	3.50	4.20 ⁵⁾

¹⁾ incl. impairment of property, plant and equipment and intangible assets as well as non-current assets held for sale

²⁾ per ultimo

³⁾ adjusted according to definition (see Glossary)

⁴⁾ EBITDA adjusted for acquisitions and divestments

⁵⁾ proposed for 2022

The key indicators from the financial year 2019 onwards are not fully comparable with the previous years' figures due to the initial application of IFRS 16.

Financial Calendar 2023

April 16, 2023	Record date “Ordinary Shareholders’ Meeting”
April 25, 2023	Results for the 1 st quarter of 2023
April 26, 2023	29 th Ordinary Shareholders’ Meeting – Vienna
May 3, 2023	Ex-dividend day
May 4, 2023	Record date “Dividends”
May 10, 2023	Dividend payment date
August 10, 2023	Results for the 1 st half-year of 2023
November 7, 2023	Results for the first three quarters of 2023

The English version of this annual report is a translation of the original German text. In case of doubt, the German version takes precedence.

The annual reports and interim reports can be requested from the Company and are also available on the Internet.

The financial statements of Mayr-Melnhof Karton AG prepared in accordance with Austrian Financial Reporting Standards were audited together with the management report by PwC Wirtschaftsprüfung GmbH, Vienna, and were approved without qualification. The financial statements have been submitted to the registrar of companies at the Vienna Commercial Court under registration number 81906a and will be published in the “Amtsblatt zur Wiener Zeitung” (Official Federal Gazette) as well as on the website of the Company.

We have prepared this report and reviewed the figures with the greatest possible care. Nevertheless, rounding, typographical and printing errors cannot be excluded. The aggregation of rounded amounts and percentages may result in rounding differences due to the use of automated computational aids. This report also contains forward-looking estimates and statements based on the information currently available to us. Please note that a wide variety of factors could cause actual circumstances – and hence actual results – to deviate from the expectations contained in this report.

The determination of key indicators which cannot be reconciled directly from the annual report can be found on our website under the section “For Investors/Key Indicators”.

Terms referring to people include both men and women.

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