2019

ANNUAL REPORT
MAYR-MELNHOF KARTON AG

Key Indicators

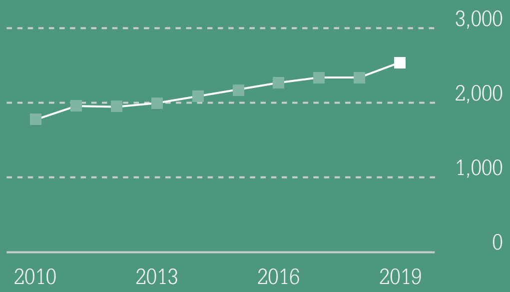
consolidated (in millions of EUR)	2019	2018	+/-
Consolidated sales	**2,544.4**	2,337.7	+ 8.8 %
EBITDA	**389.6**	324.4	+ 20.1 %
Operating profit	**255.3**	217.1	+ 17.6 %
Profit before tax	**251.1**	217.9	+ 15.2 %
Profit for the year	**190.2**	164.2	+ 15.8 %
Cash earnings	**310.4**	269.7	+ 15.1 %
Return on equity	**13.1 %**	12.1 %	
Operating margin	**10.0 %**	9.3 %	
Return on capital employed	**15.4 %**	15.0 %	
Total equity	**1,508.3**	1,384.8	+ 8.9 %
Total assets	**2,422.7**	2,065.7	+ 17.3 %
Equity ratio	**62.3 %**	67.0 %	
Net debt (-)/Net liquidity (+)	**- 218.6**	49.4	
Capital expenditures (CAPEX)	**151.0**	124.4	+ 21.4 %
Depreciation and amortization	**134.3**	107.3	+ 25.2 %
Employees	**10,014**	9,445	+ 6.0 %
Earnings per share (in EUR)	**9.49**	8.18	+ 16.0 %
Dividend per share (in EUR)	**3.60[1)]**	3.20	+ 12.5 %

[1)] proposed

Please find the five year overview 2015 – 2019 at the end of the report.

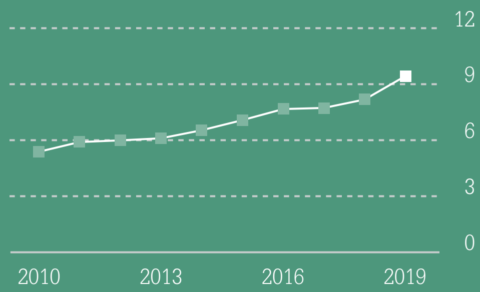
Sales
in millions of EUR

2,544.4



Earnings per share
in EUR

9.49



Strong Team – Strong Performance

A strong industrial base in cartonboard packaging and a strong team are significant factors of our long-term success. Together with their teams, experienced managers stand for MM's solid performance – today and in the future. We present some of them in this report.

Strong position

Our core competence is cartonboard packaging for consumer staples. That is the long-term focus of our resources, pursuing an attractive, sustainable business with manageable cyclicality.

No. 1 in **coated recycled fiber-based cartonboard** worldwide

No. 1 in **folding carton packaging** in Europe

~10,000 **employees** worldwide

785,000 tons of **tonnage processed**

1.7 million tons of **cartonboard produced** p.a.

~2,800 **customers** in over 100 **countries**

52 **production sites** in 20 **countries**

57 % share **core shareholder families**

Strong figures 2019

Good capacity utilization, profit growth in both divisions and the integration of the Tann-Group according to plan made 2019 another year of success.

ROCE

15.4 %

return on capital employed

Group sales

2,544.4

in millions of EUR

Earnings per share

9.49

in EUR

Cash earnings

310.4

in millions of EUR

Capital expenditures

151.0

in millions of EUR

Operating margin

10.0 %

Attractive investment

Profitable growth over the long term in the core business of cartonboard packaging is our direction with a proven strategy.

Focus on core business

Consistent acquisition course

Market leader based on cost, technology and innovation leadership

Leading in consolidation of the European cartonboard packaging industry

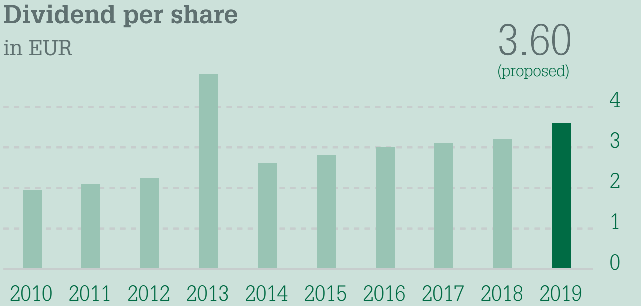
Continuous dividend policy

International growth with strong customers

Long-term orientated core shareholder

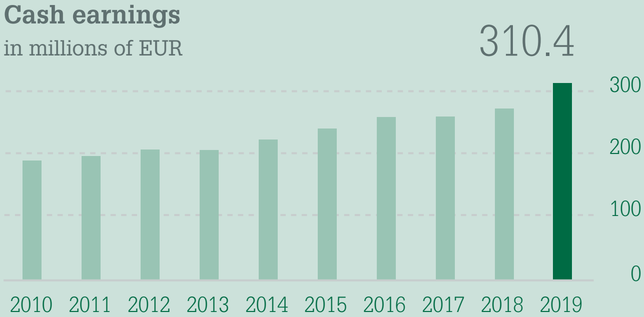
Sustainable management

Dividend per share
in EUR

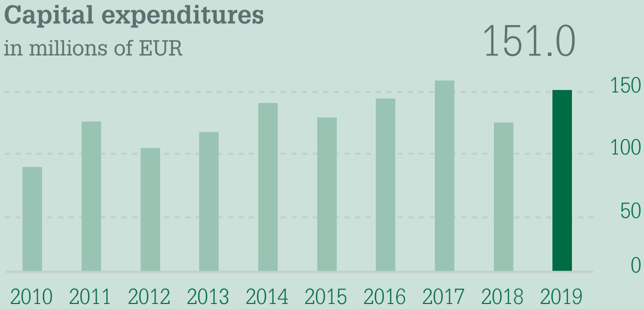


2013: incl. EUR 2.40 bonus

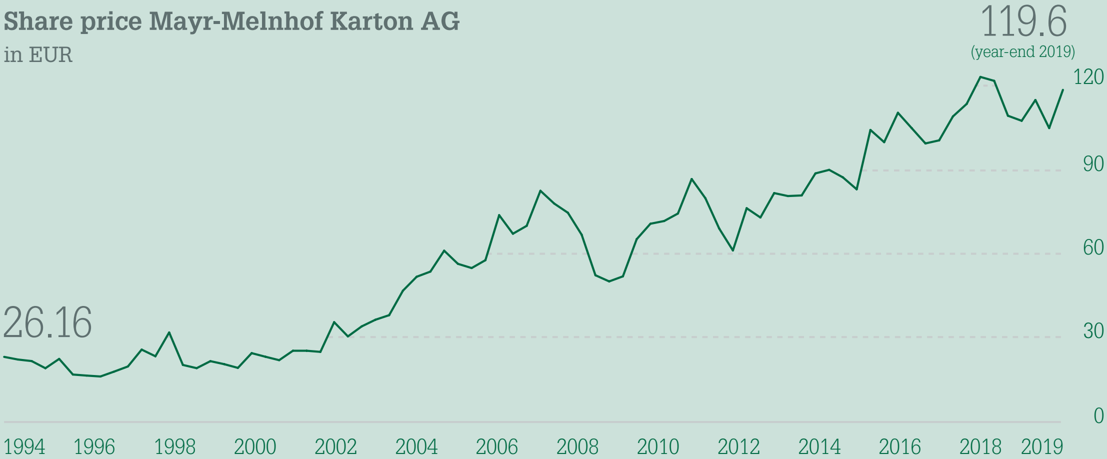
Cash earnings
in millions of EUR



Capital expenditures
in millions of EUR



Share price Mayr-Melnhof Karton AG
in EUR



Market cap

2,392

in millions of EUR (year-end 2019)

Dividend per share

3.60

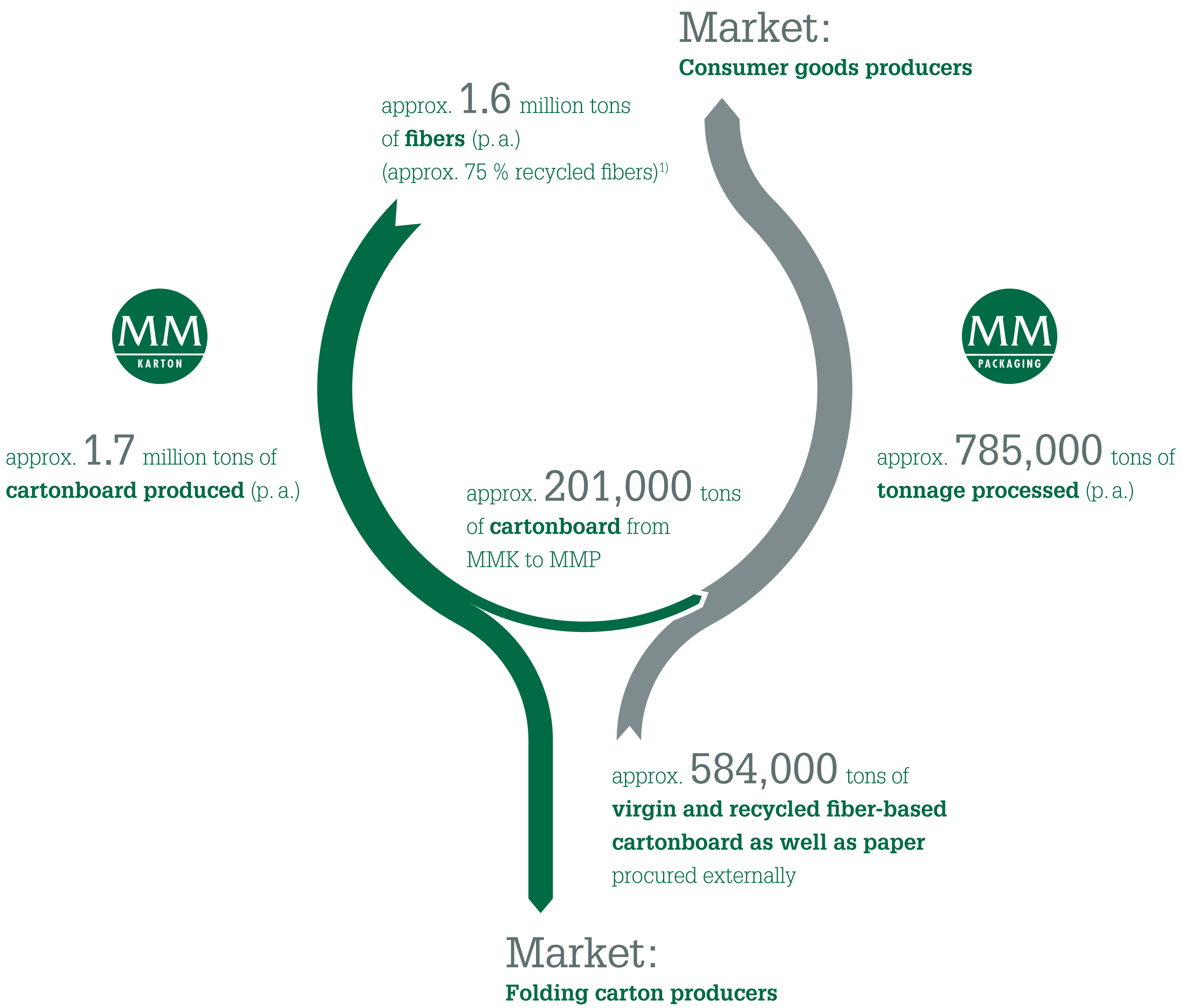
in EUR (proposed)

Dividend yield

3.2%

Proven business structure

Both divisions, MM Karton and MM Packaging, are independent profit centers which carry out business transactions at market conditions.



[1)] excl. rejects

(Values 2019)

A balanced portfolio

MM KARTON

MM PACKAGING

Group sales

38 % 62 %

Group operating profit

43 % 57 %

17.2 %
ROCE

14.2 %
ROCE

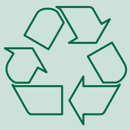
(Values 2019)

Circular economy – an inherent part of our business

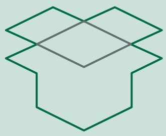
Cartonboard is nature. Cartonboard becomes cartonboard again. It is produced from the renewable raw material wood from sustainably managed forests or from recovered paper. Cartonboard packaging materials meet all the requirements of a functioning circular economy. In processing, we use state-of-the-art high-performance technologies in order to produce high-quality cartonboard and folding carton products in a resource-friendly way.

Many reasons for cartonboard

Renewable
Recyclable
Biodegradable



Cellulose fibers
Can be recycled
25 times
Source: TU Darmstadt



Paper and cartonboard
85 %
recycling rate
Source: Eurostat

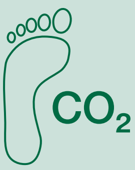
Optimal recyclability

Cellulose fibers can be recycled more than 25 times. Used paper and cartonboard packages have the highest recycling rate of all packaging materials in the EU. They form the basis for the production of the most environmentally friendly packaging material, recycled fiber-based cartonboard.

Degradable in 2 months
EN 13432

Rapid degradability

Of all packaging materials, cartonboard and paper degrade the fastest.



CO_2 capture
considerably extended

CO_2 footprint
326 kg
per ton of
processed cartonboard
Source: ProCarton

Excellent CO_2 balance

In the recycling process, the CO_2 stored in the paper is prevented from escaping into the atmosphere while the fibers remain in the value added chain.

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Our key to success,
the cohesion of
the MM team

Dear Shareholders,

it is with great pleasure that I report to you on the ongoing success course of your Company. 2019 brings another record result with a dividend increase in succession. The relentless implementation of industrial excellence in our facilities, the permanent improvement of our product portfolio and a consistent price policy create stability and resilience even in a weaker economic environment.

Growth driver in the packaging division was the integration of the Tann-Group, which was acquired at the beginning of the year and implemented quickly and according to plan. Technological proximity and a shared customer base opened up an attractive potential for the future, which we already exploited successfully in the year of integration.

The cartonboard division is on a very positive path. New products allow for gaining market shares, while further improvements in the mills and declining costs result in a significant profit growth.

The current trend towards natural and recyclable packaging makes the packaging solution cartonboard, with its sustainability and recyclability that are in demand these days, increasingly attractive. Accordingly, we are involved in many initiatives undertaken by consumer goods producers and retailers.

To sum up, your Company enters a new decade strengthened at a high level with a sound industrial and financial base.

After 30 years with MM, 25 of them on the Management Board and 18 years as its Chairman, this is a moment of reflection and emotion for me personally, and the time to thank everyone who has accompanied me. Over the past three decades, we have built a company together that has created truly sustainable profit growth under often very challenging circumstances. Today, MM has become a highly competitive market leader in Europe and globally in many attractive markets.

The key to success for me lies in the cohesion of our excellent MM team. The great passion, commitment and responsibility of each individual, through which the MM Group was able to grow to its current format. I would like to sincerely thank all our employees. The great driving force is our entrepreneurial spirit.

I would also like to thank you, dear shareholders, for the trust that you have placed in us over so many years. Remain connected to us and continue to accompany us on our long-term course.

Wilhelm Hörmanseder
Chairman of the Management Board
March 16, 2020

Management Board

Andreas Blaschke
Member of the
Management Board

Franz Hiesinger
Member of the
Management Board

Wilhelm Hörmanseder
Chairman of the
Management Board

Ambitious improvement targets – the core of our success

Thomas Gschwendtner
Managing Director Operations MM Karton

Convincing, sustainable cartonboard solutions and best practice in their implementation are our most important guiding principles when we invest in state-of-the-art technological standards of our mills. This is how we ensure continuous progress in efficiency and quality and, hence, our long-term success in the market.

Thomas Gschwendtner had a remarkable career at MM, from Junior Controller to positions as Finance and Plant Manager in four countries as well as Head of MMK Divisional Controlling to the overall operational responsibility for the MM Karton division.

Advantage through industrial leadership

Günther Halmschlager
Managing Director Technology and Development MM Karton

By the industrial implemention of new processes and products, we gain an advantage in the market and ensure a competitive development of our plants. The intensified specialization of our cartonboard machines allows for highly efficient performance increases and an economical use of resources, always with the aim of being the best in business.

Günther Halmschlager, with his many years of worldwide experience in plant engineering for the paper industry and cartonboard production, is the driving force behind the development of first-class products and highly efficient solutions that can hold their own under challenging conditions.

Special expertise for demanding industries

Béatrice Jacquet
Managing Director MMP Packetis (Pharma)
and MMP Premium

As a long-standing supplier to major pharmaceutical customers, we draw on special industry expertise for dedicated, safe solutions. We continuously improve our efficiency and performance along the entire value added chain, from raw materials to the end customer. Being agile and one step ahead with innovative products and processes is our approach to sustainably strengthening our position in the demanding pharmaceutical packaging business.

Béatrice Jacquet combines decades of international expertise in the pharmaceutical and premium packaging business with global experience in managing site networks.

Tann – a good addition and integration

Gilles Michel
Director MMP Cigarette Packaging

By combining packaging and tipping paper, we have created a unique one-stop shop in the graphic supply chain for our highly demanding customers. Technological proximity and a common customer base have enabled the rapid integration of the Tann-Group and open up interesting potential for the future. We were already able to prove this in 2019.

Gilles Michel has worked for MM Packaging for decades. In addition to managing global cigarette packaging sales, he also managed several packaging sites before assuming the position of Director MMP Cigarette Packaging in 2019.

The difference that counts

Harman Vorenkamp
Director Product Development MM Packaging

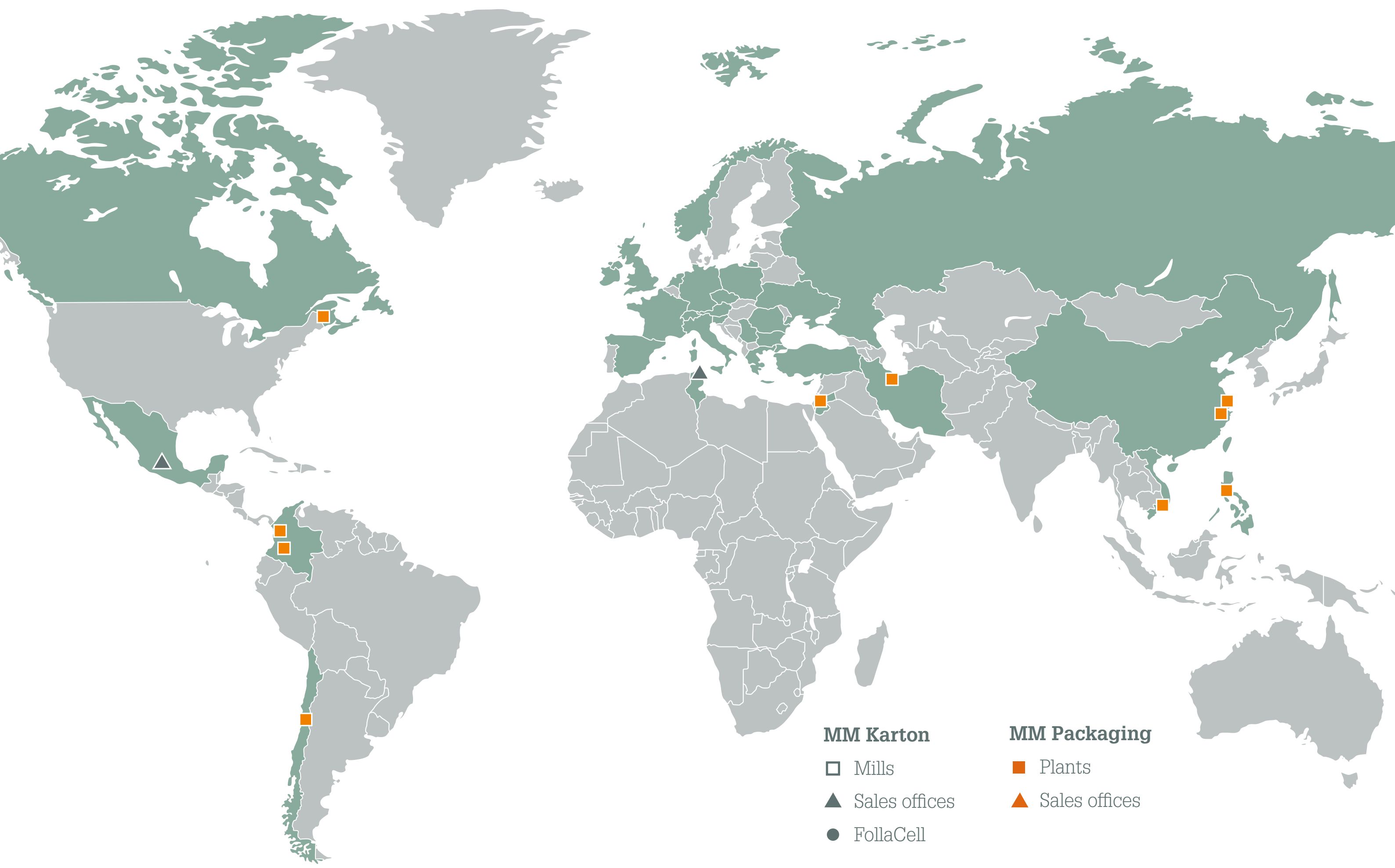
With technological and process solutions tailored precisely to the customers' needs, we create innovative and often highly complex packaging solutions that are completely different from conventional production processes. High levels of creativity and speed create exclusive added value that pays off for our customers as well as for MM Packaging.

Harman Vorenkamp combines commercial talent with years of experience as a packaging printer and production manager in all printing technologies and extensive practical experience in application technology: a broad spectrum for innovative top performance that is also very demanding.

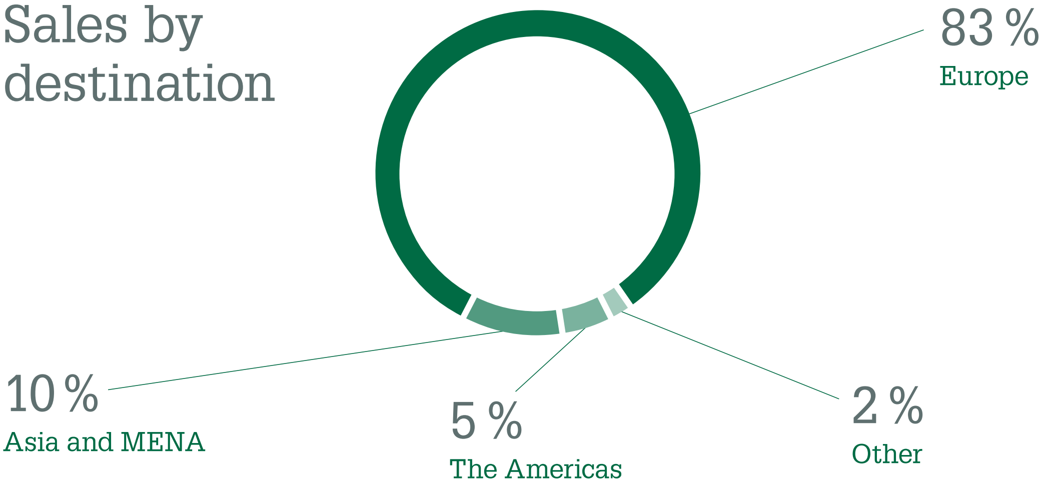
Global presence, focus on Europe

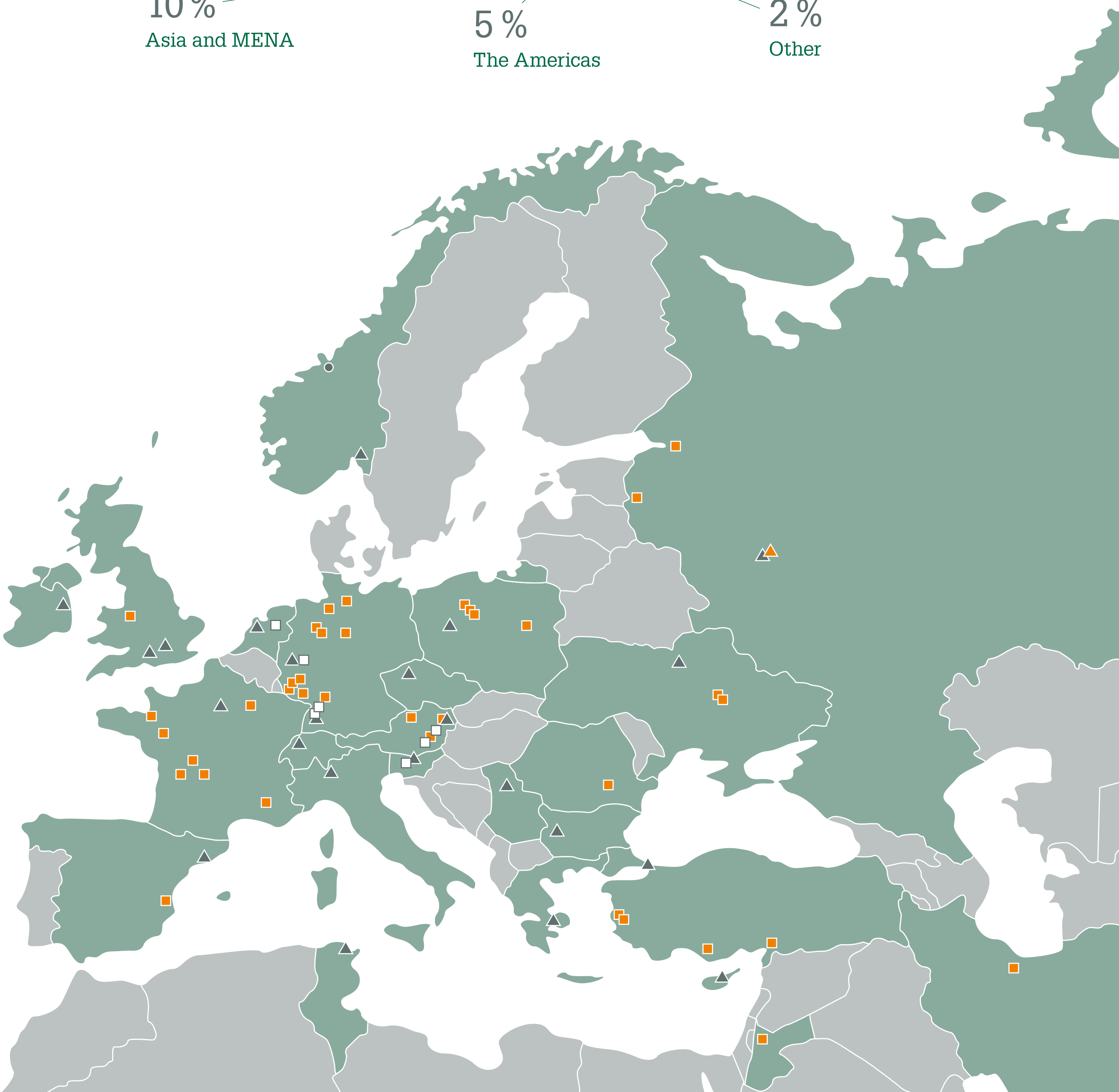
Products from our European cartonboard mills are sold worldwide. The business of individual packaging sites particularly focuses on the respective regional market due to the limited economic delivery radius.

100	3	52	7	45	83 %
Sales in more than 100 countries	Continents	Production sites	Cartonboard mills	Packaging sites	share of sales in Europe



Sales by destination





MM Karton

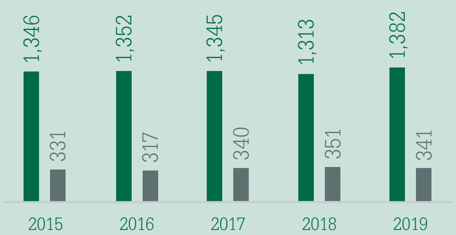
Sustainable Board Solutions

Global leading producer MM Karton is the world's largest producer of coated recycled fiber-based cartonboard with a significant European position in virgin fiber-based cartonboard. Around 80 % of the production capacity of more than 1.7 million tons are accounted for by recycled fiber-based cartonboard, while around 20 % are accounted for by virgin fiber-based cartonboard.

Sustainable demand The products of MM Karton are used primarily as raw materials for the production of cartonboard packaging for consumer staples and are characterized by high functionality and sustainability. The sales focus lies on food packaging, packaging for household and hygiene products as well as pharmaceuticals. MM Karton's main customers are folding carton producers of the highly fragmented European folding carton industry. The European cartonboard market is primarily supplied from Europe due to short-term product delivery to customers and transport costs.

Growth with high value added With an increasing share of new products as well as progressive specialization and performance enhancement, the aim is to continue to grow with high value added. Digitalization and automation enable us to create differentiation through significant progress in relation to speed and quality.

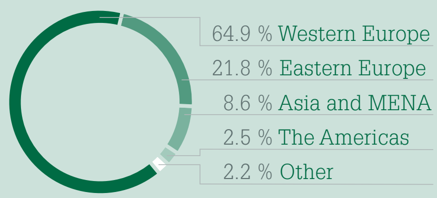
Tonnage produced by MM Karton



■ Recycled fiber-based board ■ Virgin fiber-based board

in thousands of tons

Sales by destination[1)]



[1)] incl. interdivisional sales

MM Karton Key Indicators

(in millions of EUR)	2019	2018	+/-
Sales	**1,078.3**	1,062.2	+ 1.5 %
EBITDA	**162.2**	141.7	+ 14.5 %
Operating profit	**110.5**	96.4	+ 14.6 %
Cash earnings	**129.0**	115.6	+ 11.6 %
EBITDA margin	**15.0 %**	13.3 %	
Operating margin	**10.2 %**	9.1 %	
Cash earnings margin	**12.0 %**	10.9 %	
Return on capital employed	**17.2 %**	15.9 %	
Capital expenditures (CAPEX)	**84.8**	70.6	+ 20.1 %
Depreciation and amortization	**51.7**	45.3	+ 14.1 %
Employees	**2,516**	2,501	+ 0.6 %

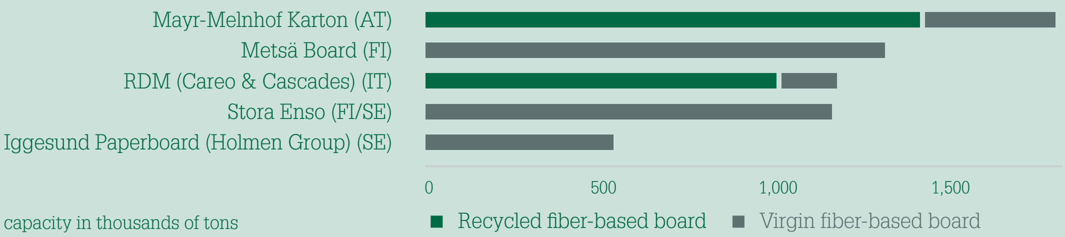
	2019	2018	+/-
Tonnage sold (in thousands of tons)	**1,705**	1,663	+ 2.5 %
Tonnage produced (in thousands of tons)	**1,723**	1,664	+ 3.5 %
Recycled fiber-based board	**1,382**	1,313	
Virgin fiber-based board	**341**	351	
Capacity utilization	**97 %**	97 %	

Divisional sales
1,078.3
in millions of EUR

Operating margin
10.2 %

Return on capital employed
17.2 %
ROCE

Leading European producers of coated board



Source: MM, excl. GK, LPB (Stora Enso) and CNK from USA

MM Packaging

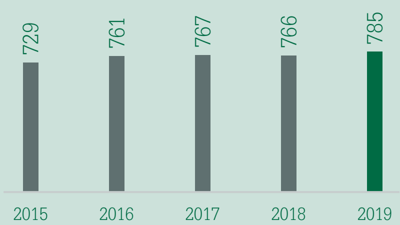
Shaping the World of Cartons

Leading folding carton producer MM Packaging is the leading producer of folding cartons in Europe and one of the largest worldwide. In 2019, MM Packaging processed around 785,000 tons of recycled and virgin fiber-based cartonboard as well as paper.

Volume business and highly specialized packaging services
The main sales area are cartonboard packages for consumer staples. With technologically dedicated locations and broad market expertise, MM Packaging's business covers the large volume market of fast-moving consumer goods (FMCG) as well as highly specialized printing and packaging services for tobacco products, pharmaceuticals and personal care. Due to transport costs and service requirements, our products are manufactured by an international network of locations close to the customer. In addition to its main market Europe, MM Packaging has plants in the Middle East, the Americas and Asia. At around 80 %, the major part of business is accounted for by large international customers.

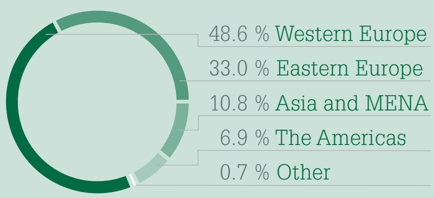
Expansion course with strong customers MM Packaging has therefore for a long time been focusing on differentiation through highly efficient industrial production within the European folding carton industry which is largely structured by trade businesses. Pursuing the guiding principle of the "perfect factory", the aim is to sustainably maintain market leadership based on cost and technology leadership. Increasing automation and digitalization create new advantages in the market and in production. Our expansion course continues to be characterized by providing our customers with sustainable packaging solutions to support their growth on a more global scale.

Tonnage processed by MM Packaging



in thousands of tons

Sales by destination[1)]



[1)] incl. interdivisional sales

MM Packaging Key Indicators

(in millions of EUR)	2019	2018	+/-
Sales	1,578.0	1,384.2	+ 14.0 %
EBITDA	227.4	182.7	+ 24.5 %
Operating profit	144.8	120.7	+ 20.0 %
Cash earnings	181.4	154.1	+ 17.7 %
EBITDA margin	14.4 %	13.2 %	
Operating margin	9.2 %	8.7 %	
Cash earnings margin	11.5 %	11.1 %	
Return on capital employed	14.2 %	14.3 %	
Capital expenditures (CAPEX)	66.2	53.8	+ 23.0 %
Depreciation and amortization	82.6	62.0	+ 33.2 %
Employees	7,498	6,944	+ 8.0 %

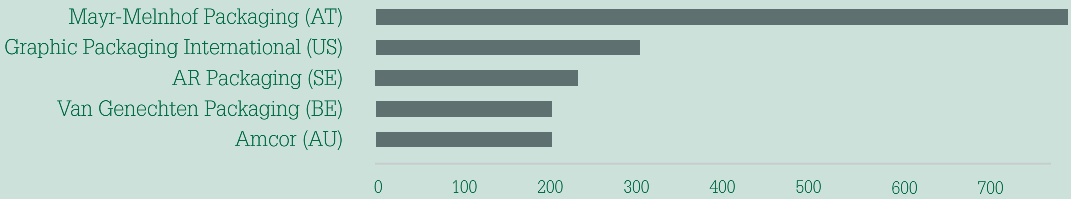
	2019	2018	+/-
Tonnage processed (in thousands of tons)	785	766	+ 2.5 %

Divisional sales
1,578.0
in millions of EUR

Operating margin
9.2 %

Return on capital employed
14.2 %
ROCE

Leading board converters in Europe



tonnage processed in thousands of tons

Source: MM

MM Shares

In a trading year 2019 that was characterized by a remarkable upward trend on most stock exchanges, particularly in the first and fourth quarters, the Mayr-Melnhof share was not able to fully keep pace with the indices with a price performance of +8.7 %. After a price of EUR 110.00 on the last trading day of 2018 (December 28, 2018) and a dividend payout of EUR 3.20 per share, the year 2019 concluded with a share price of EUR 119.60. On March 12, 2019, and on November 27, 2019, the share reached the annual high of EUR 121.00.

Our ongoing investor relations activities focused on positioning the MM Group as a long-term-orientated, profitable market leader in cartonboard packaging. In 2019, institutional and private investors also found the MM Group's business model with dividend continuity as well as value-oriented and risk-conscious growth highly attractive. The strong development in the cartonboard segment and the recent acquisition of the Tann-Group were met with particular interest. We satisfy the information needs of investors and interested members of the public on a regular basis, primarily via our website and in numerous personal discussions. We value the constructive feedback from the dialog with capital market participants as an enrichment on our future path. Analysts of international banks and brokerage houses gave consistently positive recommendations in 2019 based on the business development and in light of their ongoing assessment.

The share

The share of Mayr-Melnhof Karton AG has been listed on the Vienna Stock Exchange for 26 years. The issue price on April 21, 1994 amounted to EUR 26.16. As the share has been listed in the ATX Prime for many years, special additional requirements, such as stricter transparency criteria and minimum capitalization, are fulfilled.

The share capital of Mayr-Melnhof Karton AG amounts to EUR 80 million and is divided into 20 million bearer shares. According to the principle of "one share – one vote", each share has the same voting rights. Moreover, in the USA there is a Sponsored Level 1 American Depository Receipt (ADR) program with the Bank of New York Mellon in which ADRs in US dollars are traded over the counter (OTC).

Stock markets 2019

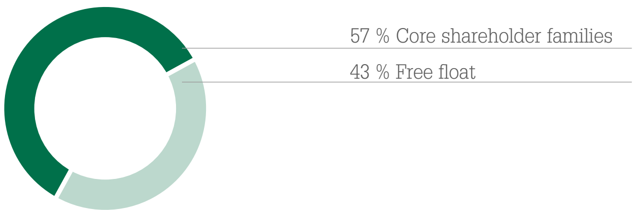
The positive stock market performance in 2019 was fueled in particular by the positive consensus among investors that the expansionary monetary policy of the European Central Bank and the US Federal Reserve is likely to continue for some time. This was to such an extent that several dampening factors such as trade conflicts, lowered growth forecasts and a number of political uncertainties, ranging from Brexit to ongoing crises in the Middle East and turbulence in several Latin American countries, ultimately failed to make themselves felt.

The price increases in 2019 were especially marked in the USA, where the Dow Jones Industrial (DJI) rose by 22.3 %, most recently also due to an easing in the global trade dispute. The pan-European stock index EURO STOXX 50 rose at a similar rate as the US indices, namely by 24.8 %. The DAX also posted a rise of more than 25 %. On the Vienna Stock Exchange, the leading index ATX also rose significantly by 16.1 %. Contrary to other stock exchanges, the year's high in 2019 was already reached in mid-April.

Stable shareholder structure

The shareholder structure of Mayr-Melnhof Karton AG is characterized by a sustainably high degree of stability. The largest shareholders are the core shareholder families who hold approximately 57 % of the share capital in a syndicate. The remaining 43 % of the shares are in free float and mainly held by long-term oriented institutional investors in Europe and the USA.

Shareholder structure
in %



Continuous dividend policy

Our dividend policy provides a continuous distribution to the Company's shareholders in line with profit performance. Following the positive profit development in the business year 2019, the Management Board will propose a dividend of EUR 3.60 per share to the 26th Ordinary Shareholders' Meeting on April 29, 2020, after EUR 3.20 per share were paid for 2018. This corresponds to a dividend payment totaling EUR 72.0 million (2018: EUR 64.0 million) for the business year 2019 and a payout ratio of 37.95 % (2018: 39.10 %). Based on the average share price in 2019, a dividend yield of around 3.2 % was achieved (2018: 2.7 %).

Investor Relations

A sustainable personal and open dialog with institutional and private investors, analysts, journalists, and the interested public is the underlying strategy of our investor relations program, which we continued to pursue with great commitment also in 2019.

As in the past, we used a large number of roadshows and investor conferences to maintain or get into contact with investors. The main emphasis was placed on major financial centers in Europe, such as London, Paris, and Frankfurt. As already in the previous year, we recorded an increasing number of direct requests for dialog from investors, which we gladly fulfilled. The dialog with international and Austrian analysts was characterized by continuing an often long-term cooperation.

The approach of our investor relations work consists in providing an accurate image of the Group at all times in order to facilitate an appropriate valuation of the MM share.

We thereby attach the highest priority to the principle of treating all shareholders equally. We therefore 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 development of the Group on a quarterly basis in publicly accessible audio and/or video webcasts. Thereby, the presentation of the annual and half-year results also takes place as a video webcast and a subsequent CEO conference call on a regular basis.

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.mayr-melnhof.com/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 Mayr-Melnhof Investor Relations

Stephan Sweerts-Sporck
Phone: +43 1 501 36 91180
Fax: +43 1 501 36 91195
E-mail: investor.relations@mm-karton.com
Website: https://www.mayr-melnhof.com

Information about Mayr-Melnhof shares

ISIN securities identification number: AT0000938204

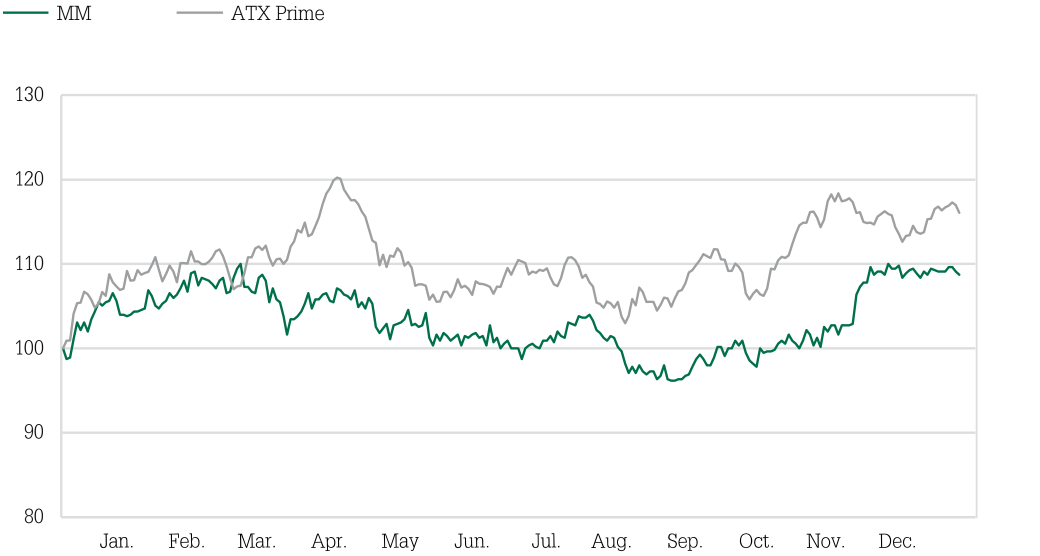
ADR Level 1: MNHFY

Reuters: MMKV.VI

Bloomberg: MMK:AV

Share price chart

Relative performance of MM shares 2019 (December 28, 2018 = 100)



Share performance indicators

Stock price per share (in EUR)	**2017**	**2018**	**2019**
High	130.95	131.80	121.00
Low	99.50	107.40	105.80
Year-end	122.50	110.00	119.60
Stock performance (as of Dec. 31)			
-1 month	+ 1.6 %	- 3.7 %	- 0.7 %
-3 months	+ 0.9 %	+ 1.7 %	+ 8.3 %
-9 months	+ 12.2 %	- 10.7 %	+ 7.0 %
Relative performance (year-end)			
MM Shares	+ 21.6 %	- 10.2 %	+ 8.7 %
ATX Prime	+ 29.9 %	- 19.6 %	+ 15.9 %
Share performance indicators (in EUR)			
Earnings per share	7.73	8.18	9.49
Cash earnings per share	12.85	13.49	15.52
Total equity per share	65.81	69.13	75.15
Dividend per share	3.10	3.20	3.60[3]
Dividend (in millions of EUR)	62.00	64.00	72.00[3]
Dividend yield per average share price (in %)	2.7 %	2.7 %	3.2 %
Stock market data (Vienna Stock Exchange)			
Trading volume[1] (in EUR)	1,056,260	1,252,761	1,519,050
Number of shares issued	20,000,000	20,000,000	20,000,000
Free float[2]	8,596,720	8,596,720	8,596,720
Market capitalization[2] (in millions of EUR)	2,450	2,200	2,392
ATX Prime weighting[2] (in %)	1.99 %	2.41 %	2.18 %

[1] daily average
[2] as of Dec. 31
[3] proposed

Corporate Governance Report

The Mayr-Melnhof Group pursues a responsible business activity focusing on sustainable value added in both segments, MM Karton and MM Packaging. In order to ensure this in the long term, we pay attention to a consistent compliance with good Corporate Governance. This includes the whole system of management and control of the Company, and thereby promotes the trust of our employees, shareholders, customers, suppliers and the public place in the MM Group.

COMMITMENT TO THE AUSTRIAN CORPORATE GOVERNANCE CODE

Since the Austrian Corporate Governance Code (Österreichischer Corporate Governance Kodex – ÖCGK) became effective in 2002, Mayr-Melnhof Karton AG has voluntarily committed itself to compliance with the Code in its respectively applicable version. 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, in accordance with national and international developments, regularly reviewed and adjusted accordingly. 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 Mayr-Melnhof Karton AG. Furthermore, every three years an external evaluation of compliance with C rules is carried out, which was last time performed in 2018 in order to rotation.

The implementation and evaluation for the business year 2019 is based on the Code's version of January 2020. Mayr-Melnhof Karton AG 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 2019:

Rule 27	Non-financial criteria are not taken into account for the variable compensation of the members of the Management Board. Explanation: Content of current contracts with the members of the Management Board
Rule 27a	In case of an early termination of a member of the Management Board without any good cause, such member shall be compensated for no more than the remaining term of the contract. The economic situation of the Company is not considered. Explanation: Content of current contracts with the members of the Management Board

Rule 30	The upper limits currently applicable for variable compensation are not stated. Explanation: Based on the ongoing external dialog, we do not consider this information material or relevant for any decisions. A cap is provided for in any case.
Rule 51	No disclosure of the compensation of each individual member of the Supervisory Board Explanation: Based on the ongoing external dialog, we do not consider this information material or relevant for any decisions.

COMPOSITION AND REMUNERATION OF THE BOARD

THE MANAGEMENT BOARD

Wilhelm HÖRMANSEDER
Chairman
Member of the Management Board
since March 9, 1994
appointed until June 30, 2021
End of the Management Board mandate
on April 30, 2020
born 1954

Franz HIESINGER
Member of the Management Board
since October 1, 2017
appointed until September 30, 2020
born 1965

Andreas BLASCHKE
Member of the Management Board
since May 14, 2002
appointed until May 14, 2020
born 1961

Franz RAPPOLD
Member of the Management Board
since May 14, 2002
appointed until May 14, 2020
Member of the Management Board
until June 30, 2019
born 1952

Peter Oswald, born in 1962, was appointed as Member of the Management Board as of April 1, 2020 and as Chairman of the Management Board as of May 1, 2020.

Wilhelm Hörmanseder is member of the Board of Directors of Krono Holding AG, Luzern, Switzerland. The other 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
1st Deputy Chairman since May 7, 2008
Member of the Supervisory Board since May 18, 2005
born 1955
Manager of his own companies

Nikolaus ANKERSHOFEN
2nd Deputy Chairman since April 26, 2017
Member of the Supervisory Board since April 28, 2010
born 1969
Lawyer and partner at Ankershofen-Goess-Hinteregger Rechtsanwälte OG, Supervisory Board member at Mayr-Melnhof Holz Holding AG, Leoben, Supervisory Board member at Bankhaus Krentschker & Co. Aktiengesellschaft, Graz, Management Board member of several private trusts

Romuald BERTL
Member of the Supervisory Board since March 2, 1994
born 1953
Auditor and tax consultant, Ordinary University Professor of Accounting and Auditing at the Vienna University of Economics and Business, Head of the Institute of Accounting and Auditing at the Vienna University of Economics and Business, President of the Austrian Financial Reporting and Auditing Committee (AFRAC), Management Board member of Austrian family trusts and Supervisory Board member in Austrian family-owned companies

Guido HELD
Member of the Supervisory Board since May 7, 2008
born 1944
Lawyer and managing partner at hba Rechtsanwälte GmbH, Management Board member of several private trusts, member of the management of various companies

Alexander LEEB
Member of the Supervisory Board since May 7, 2008
born 1959
Deputy Chairman of the Supervisory Board of Plansee Holding AG, Reutte, Supervisory Board member at Andritz AG, Graz, Chairman of the Board of Trustees of LGT Venture Philanthropy Foundation, Vaduz, Chairman of Impact Ventures S.A., Luxembourg

Georg MAYR-MELNHOF
Member of the Supervisory Board since May 7, 2008
born 1968
Employee of the archdiocese of Salzburg

Michael SCHWARZKOPF
Member of the Supervisory Board from April 29, 2009 until December 18, 2019
born 1961
Chairman of the Supervisory Board of Plansee Holding AG, Reutte

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

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

The current mandates of all members of the Supervisory Board delegated by the shareholders will expire at the 26th Ordinary Shareholders' Meeting in 2020 which will resolve on the discharge for the financial year 2019.

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
Romuald BERTL, 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
Member of the Supervisory Board, Andritz AG, Graz

Independence of the members of the Supervisory Board
The members of the Supervisory Board use the guidelines of the Austrian Corporate Governance Code as an orientation for 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.

Representation of interests of a share > 10 % in Mayr-Melnhof Karton AG
In the Supervisory Board of Mayr-Melnhof Karton AG, there is one independent member representing a legal entity with a shareholding of more than 10 %:

Nikolaus ANKERSHOFEN

Contracts between members of the Supervisory Board and the Company subject to approval
There are no such contracts.

Compensation of the Management Board

The compensation of the members of the Management Board is based on responsibility, personal performance, and the tasks accomplished by each member of the Management Board as well as the achievement of the Company's objectives and the economic situation of the Company. The compensation comprises fixed and variable components. The variable compensation depends in particular on sustainable, long-term and multi-year performance criteria without giving rise to unreasonable risk-taking. Non-financial criteria are currently not taken into account.

The variable component of the compensation of the members of the Management Board, which is relatively high in relation to the fixed compensation, is subject to an upper limit and depends on the annual result, cash earnings, dividend payments, and the return on capital employed. The variable compensation of the members of the Management Board is paid on the basis of the data audited by the auditor in the year following the economic reference base.

In the business year 2019, the total amount of compensation for the members of the Management Board was thous. EUR 10,201 (2018: thous. EUR 9,017). Thereof, thous. EUR 2,756 (2018: thous. EUR 2,668) were related to fixed compensation and thous. EUR 7,445 (2018: thous. EUR 6,349) to variable compensation. The compensations of the individual members are as follows: Wilhelm Hörmanseder accounts for a fixed compensation of thous. EUR 1,512 and a variable compensation of thous. EUR 3,720, Andreas Blaschke accounts for a fixed compensation of thous. EUR 489 and a variable compensation of thous. EUR 1,490, Franz Hiesinger accounts for a fixed compensation of thous. EUR 489 and a variable compensation of thous. EUR 1,490, Franz Rappold accounts for a fixed compensation of thous. EUR 266 and a variable compensation of thous. EUR 745.

The Company pension scheme entitles employees to receive a pension as of the 65th year of age depending on the qualifying period. This includes defined benefit plans and defined contribution plans which primarily depend on the length of service and the beneficiaries' compensation.

In case of termination of a function, statutory rights on the basis of the employment contract shall apply. Severance payments in case of early terminations shall not exceed the compensation of the member of the Management Board for the remaining term of the member's contract and take into account the circumstances of such termination of the respective member of the Management Board.

The Company has taken out a D&O (Directors-and-Officers) insurance.

The compensation of senior management in the Group also comprises fixed and variable components, the variable compensations being based on the achievement of financial corporate goals and individually defined objectives.

Compensation of the Supervisory Board

The compensation of shareholders' representatives in the Supervisory Board for the current business year will be determined by the Shareholders' Meeting in the following year and paid subsequently. The Supervisory Board's compensation for 2018 amounted to thous. EUR 497. The distribution of the total compensation among the members is the Supervisory Board's responsibility. In addition, the members of the Supervisory Board are granted a compensation for additional expenses incurred in exercising their duties.

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

Allocation of rights and duties within the Management Board

Wilhelm HÖRMANSEDER	Chairman of the Management Board
Franz HIESINGER	Finance
Andreas BLASCHKE	Sales, Marketing MM Packaging
Franz RAPPOLD	Sales, Marketing MM Karton (Member of the Management Board until June 30, 2019)

The Management Board manages the business in accordance with the law, the bylaws, and the Articles of Association of the Company. The bylaws of the Management Board govern the assignment of responsibilities as well as the cooperation within the Management Board and include a catalog 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 on material Group- and division-relevant topics. 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 direction 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 compensation 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. Each Chairman of the Committee informs the Supervisory Board on a regular basis about the activities of the Committee.

Focus of the Supervisory Board

The Supervisory Board convened in six meetings in the business year 2019, with the participation of the Management Board, and fulfilled its tasks and obligations in accordance with the law and the Articles of Association. All the members of the Supervisory Board attended at least five meetings.

In addition to analyzing ongoing business development and the integration of the Tann-Group, the main areas of focus were Group strategy, investments and acquisition, financing, risk evaluation as well as topics of Corporate Governance, compliance and succession planning. As in previous years, the Supervisory Board has again visited one of the Group's production facilities in 2019.

The Supervisory Board carried out a self-evaluation for the financial year 2019 in individual interviews between the chairman of the Supervisory Board and the Supervisory Board members, with the result that the activity of the Supervisory Board was assessed to have been generally efficient. The bylaws, 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 to this.

Discussions in the Supervisory Board and Management Board meetings were characterized by openness and a high degree of constructiveness also in 2019.

All participants had sufficient opportunity for questions and discussions.

Focus of the Committees of the Supervisory Board

In 2019, the Presidium (Committee for Management Board Issues) met ten times. It dealt especially with Group strategy as well as matters relating to the Management Board and prepared the meetings of the Supervisory Board. The focus of the succession planning was, in particular, on filling the vacancy of the position of the Chairman of the Management Board.

The implementation of the Governance regulations applicable to the compensation of the members of the Management Board and the review of the underlying compensation policy have been taken care of.

In 2019, the Audit Committee held two meetings and fulfilled its statutory duties. One focus was placed on dealing with the Group financial statements and the individual financial statements for 2018 as well as the preparation of the Group financial statements and the individual financial statements for 2019. In this context, also the consolidated non-financial report according to section 267 a of the Austrian Commercial Code and its audit, were discussed, as well as details concerning the scope of non-auditing services rendered by the auditors, and the key audit matters were determined.

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

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. The diversity of our employees is considered as an asset, enabling us to fulfill our tasks in an even more creative and better way. We reject any form of discrimination and harassment on grounds of gender, race, skin color, religion, age, national or ethnic descent, disability, or sexual orientation. Employees and job applicants are assessed based on the principle of non-discrimination.

The Supervisory Board currently comprises nine men, and the Management Board three.

Positions in the Management Board, the Supervisory Board and leading positions are primarily staffed based on professional and personal qualifications. The MM Group, however, follows the recommendations of the Equality Act to observe diversity when filling management positions within the Company and to strive to achieve a reasonable allocation according to gender, age, and expertise.

Women have been holding leading positions within the MM Group for a long time, particularly in the areas of human resources, legal matters, sales, and finance. Owing to the Group's activities in heavy industry and the shift systems, the proportion of women within the Group and in the recruitment process tends to be low. Nevertheless, we aspire to increase the share of women at all levels, in particular by means of appropriate development programs as well as by offering flexible working time models. Being an attractive employer for women, also in technical occupations, is one of our long-term objectives.

EXTERNAL EVALUATION

The Code (ÖCGK) requires a regular external evaluation (at least every three years) of the Company's compliance with the C rules (Comply or Explain). The last was carried out in the course of the annual audit of the financial statements 2018 by Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft. 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 2021.

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 16, 2020

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p. Franz Hiesinger m. p.

Report of the Supervisory Board

In the financial year 2019, the Supervisory Board fulfilled its responsibilities pursuant to statutory provisions and the Articles of Association. In addition to analyzing ongoing business development and the integration of the Tann-Group, the main areas of focus were the Group strategy, investments, acquisitions, financing, risk evaluation as well as topics of Corporate Governance, compliance and succession planning.

Peter Oswald appointed as new CEO of Mayr-Melnhof Karton AG
Special attention in succession planning was paid to filling the position of Chairman of the Management Board, which Wilhelm Hörmanseder (66) has held since 2002. With 28 years of experience in the industry, most recently as CEO of the publicly listed packaging and paper company Mondi Group, and his many years of management experience, Peter Oswald (57) is the ideal person to serve as the future CEO of Mayr-Melnhof Karton AG. He will join the Management Board with effect from April 1, 2020. Mr. Hörmanseder will hand over to Mr. Oswald on May 1, 2020, after 18 years as CEO, 25 years as a member of the Management Board, and a total of 30 years in the MM Group.

Under Mr. Hörmanseder's leadership, the MM Group has recorded sustained profit growth and a solid course of expansion in Europe and around the world and is very well positioned in many attractive markets today as market leader in cartonboard packaging with a strong competitive edge.

We would like to thank Mr. Hörmanseder on behalf of the entire company for his exceptional commitment and his extraordinary achievements over three decades.

Ongoing activities of the Supervisory Board
During the financial year 2019, the Supervisory Board convened in six meetings with the participation of the Management Board. All the members of the Supervisory Board attended at least five meetings. Furthermore, the Presidium (Committee for Management Board Issues) convened ten times, the Audit Committee chaired by Romuald Bertl 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 the 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.

Between the meetings, the Chairman of the Supervisory Board and the Chairman of the Management Board were regularly in contact and discussed the progress of business, strategy, and the Company's risk position.

Audit 2019

The annual financial statements and the management report of Mayr-Melnhof Karton AG for the year ending December 31, 2019, 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 2019.

The Supervisory Board has complied with its statutory audit obligation for the consolidated non-financial report 2019. Additionally, a limited assurance engagement was performed. Based on the procedures performed, nothing has come to the attention of PwC Wirtschaftsprüfung GmbH, Vienna, that causes to believe that the consolidated non-financial report 2019 of Mayr-Melnhof Karton AG is not prepared, in all material aspects, in accordance with the requirements of section 267 a of the Austrian Commercial Code.

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

The Supervisory Board concurs with the annual financial statements, the management report, the 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, 2019. Thus, the 2019 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 2019.

The members of the Supervisory Board extend their gratitude to the Management Board and all employees of the Mayr-Melnhof Group for their excellent performance and great dedication during the financial year 2019.

Vienna, March 2020

Rainer ZELLNER
Chairman of the Supervisory Board

Management Report

1 — POSITIONING OF THE MAYR-MELNHOF GROUP AND THE DIVISIONS

GROUP

Cartonboard packages for consumer goods at the core of our business
The production and sale of cartonboard as well as the processing of cartonboard into consumer goods packages are the two core business areas of the Mayr-Melnhof Group. They are managed as two divisions that are responsible for their own results and supply each other at arm's length. The MM Karton division is the world's largest producer of coated recycled fiber-based cartonboard with a significant European position in the area of virgin fiber-based cartonboard. The MM Packaging division is the largest producer of folding cartons in Europe and, additionally, holds a leading market position in several countries outside Europe. Cartonboard is mainly used as raw material for the production of folding carton packaging. Folding cartons are, besides plastics, the most important primary packaging material for consumer staples. Demand for cartonboard and cartonboard packaging correlates with the development of private consumption, especially of consumer staples. Due to transport costs and service demands, the folding carton business has a mainly regional character. In contrast, the cartonboard business is concentrated on the individual continents, whereby global cartonboard trade accordingly only plays a minor role.

Two profit centers
Similar to the previous year, MM Karton supplied around 12 % of its cartonboard sales to MM Packaging at arm's length conditions in 2019. The majority of its cartonboard production, however, is sold to folding carton producers outside the Group and thus to competitors of MM Packaging.

MM Packaging bought around one quarter of the tonnage processed internally from MM Karton in 2019. The major share of the required cartonboard is purchased from external suppliers. The main reasons are the limited internal supply of virgin fiber-based cartonboard as well as free purchase at market conditions and specifications by customers concerning particular cartonboard grades.

Regional focus on Europe – global growth orientation
The regional focus of our business is the well-developed and sustainable European market, where both divisions have been keeping the leading market position for a long time. Growth drivers are further penetration of existing market segments, on the one hand, and the exploitation of new sales opportunities, on the other hand. Furthermore, we pursue an expansion and acquisition strategy at a global scope with the aim of achieving a leading position in our core business and to expand this further.

By combining organic growth and acquisitions with the aspiration of high value added and competitive strength, our aim is to profitably grow further at a manageable risk over the long term.

Best practice principle for sustainable development

Markets for cartonboard packages are attractive and thus face intense competition. With an undistracted emphasis on our core business, we focus on using economies of scale and best practice with the aim of maintaining our market position based on cost, technology and innovation leadership over the long term with a high level of profitability. We thus ensure a good standard at our locations and initiate adaption measures if necessary. Our investing activity and the development of our employees are long-term and continuously orientated towards being able to exploit new opportunities in time by using state-of-the-art technologies and know-how.

MAYR-MELNHOF KARTON

Leading in coated recycled fiber-based cartonboard

With a total annual production capacity of more than 1.7 million tons, the division MM Karton produces a wide range of cartonboard products for a broad range of applications in the packaging area at seven locations in Europe. Coated recycled fiber-based cartonboard accounts for approx. 80 % of the production, whereby MM Karton has the world's largest production in this product segment. Furthermore, MM Karton holds a significant position in the area of virgin fiber-based cartonboard in Europe, accounting for a production share of approx. 20 %. Recycled fibers, which are purchased from external suppliers, are the most important raw material accounting for around 75 % of the fibers used. Around 20 % 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 accounts for about 5 % of the fiber demand and is of minor importance.

Cartonboard – principle use in consumer goods packaging

Cartonboard products of MM Karton are used as packaging material in numerous markets. They are mainly used for cartonboard packages for consumer staples. Due to a broad range of standard and special qualities, MM Karton covers a diversified range of possible applications as a full-scale supplier. Areas of emphasis are food packages followed by packages for household and hygiene products and pharmaceuticals. Exploiting new opportunities of use and continuously improving existing solutions and processes as well as developing new application areas and market potential are at the center of constant product development and innovation activities. MM Karton thereby pursues a holistic approach which takes into account aspects from the entire value chain for differentiation on the market. A high level of quality, product functionality and safety as well as comprehensive expertise and state-of-the-art services characterize our cartonboard portfolio. In order to optimally satisfy specific requirements of individual market segments, MM Karton's main product groups – recycled fiber-based cartonboard, virgin fiber-based cartonboard, and white coated recycling liner (high-quality printable and refinable top layer for corrugated board products in low grammage) – have been set up as separate units within the sales organization. The possibility to deliver the same products from several cartonboard mills (multi-mill concept) creates a high degree of supply reliability and the digital connection of the customer through "MMK digital" a new level of speed, flexibility and service along the supply chain.

Impact of "plastic substitution" still difficult to predict

Plastics are the most important competitive product for cartonboard in the field of packaging in a broad variety of forms and applications with a high dependency on the price of crude oil. While interaction between these two principal packaging materials has so far been limited to fringe areas owing to their different properties and functionality, increasing attention is currently paid to examining new possibilities for the use of cartonboard in the light of the substitution of plastics. For the moment it is still difficult to assess the impact of this trend on cartonboard sales as it is still at an early stage. It is, however, certain that the trend towards lower packaging weights in all forms of packaging will continue, with the requirement to maintain or further increase properties and functionality.

Main market Europe – a broad customer base

The European cartonboard market is primarily supplied from Europe due to transport costs, high logistical demands regarding short-term product delivery to customers as well as the high level of specific finishing of cartonboard in individual formats.

According to the geographic base with seven European production sites, Europe is MM Karton's main market, where it distributed around 84 % of its sales volume in 2019. Another 16 % were sold to countries outside Europe, which makes MM Karton holding a leading market position in Europe and thereby accounting for the largest share of cartonboard exports from Europe. More than 1,000 customers are supplied in around 100 countries worldwide. These are primarily printing businesses in the medium-sized and persistent highly fragmented European folding carton industry. The influence of consumer goods producers and retailers on buying decisions for cartonboard has been increasing for years, also as a direct contact partner. In response to this trend, MM Karton is positioned very well due to a customized range of products and services, company size as well as specific expertise.

“MMK digital” – digital sales and service channel

With "MMK digital", MM Karton continues to be the pioneer of digitalization in the cartonboard industry, setting new standards in speed and communication through a unique range of seamless processes. Customers can perform all business processes with MM Karton online and securely in real time in a matter of seconds, around the clock, seven days a week. All steps – from product selection, production preview and ordering to call-off from stock – can be carried out online by the customer themselves at any time. In total, several 100,000 order transactions per year are already completed via "MMK digital", with an upward trend. The range of products continues to grow and was extended in 2019 to include the online sales area of "Stock Sales & Special Offers".

Specialized machines – high-performance locations

MM Karton is producing coated cartonboard in order to exploit efficiencies of scale concentrated on nine high-performance cartonboard machines at seven European locations in four countries: Germany, Austria, Slovenia, and the Netherlands. Each of the machines is specialized in specific product qualities: four on recycled fiber-based cartonboard, two on virgin fiber-based cartonboard, and one on white coated recycling liner. In addition, two more cartonboard machines are flexibly producing both recycled and virgin fiber-based cartonboard grades. The cartonboard machines are continuously further developed according to the state of the art with a focus on growth potential and competitive strength.

Recycled fibers – sustainably available
Recovered paper is the strategically most important raw material in the production of coated recycled fiber-based cartonboard. Groundwood pulp, 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 Karton purchases recycled fibers exclusively 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 high European recovered paper recycling quotas and existing reserves as well as significantly decreased recovered paper exports from Europe to Asia, we consider the raw material of recovered paper to be sustainably available and the supply of our cartonboard mills to be secured.

High concentration of the cartonboard industry – strong competition continues
According to our estimates, the total recorded global consumption of cartonboard amounts to approx. 64 million tons per year, of which around 60 % are accounted for by Asia and nearly one fifth each by America and Europe.

The concentration of the cartonboard industry in Europe has been far advanced for a long time. The five largest suppliers currently account for around three quarters of European cartonboard capacities. MM Karton is the only supplier with several locations in the production of recycled and virgin fiber-based cartonboard, respectively and moreover, the only European cartonboard producer with an additional mainstay 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 only through a continuous technological modernization of existing mills ("creeping capacity increase") for over two decades. Regarding virgin fiber-based cartonboard, especially the structural shift from graphical papers to cartonboard packaging products over the last few years has resulted in the creation of new capacities, some of which are also sold outside Europe.

Growth through product development and industrial excellence
Cartonboard is an attractive packaging product that combines both economic and ecological advantages through sustainable industrial production and a wide range of potential applications. With its commitment to cost, technology and innovation leadership, MM Karton is pursuing further growth in recycled and virgin fiber-based cartonboard while maintaining an attractive result quality. As in the past, we will proceed with great discipline and give priority to maintaining prices over volume. We will continue to give priority to generating new capacities from our well-positioned production facilities. Reducing unit costs and strengthening our market position by using state-of-the-art technologies in production and service remain the focus on our future path.

MAYR-MELNHOF PACKAGING

Leading folding carton producer

The core business of MM Packaging focuses on folding cartonboard packages for consumer staples. In 2019, we have processed around 651,000 tons of recycled and virgin fiber-based cartonboard and 134,000 tons of paper. MM Packaging is thus not just the leading producer of folding cartons in Europe but also one of the largest worldwide.

The production of corrugated cardboard is a different industry from that of cartonboard and folding cartons with different products and markets in which MM Packaging does not operate. Overlaps are mainly limited to fine flute (micro-flute) consumer packages, which are also produced at a few specialized MM Packaging locations.

Growing international presence – always close to the customer

Transport costs and service requirements limit the supply radius of folding cartons, which are thus defined as mainly regional products. The geographic focus of the international network of 45 production plants in 18 countries lies on Europe. MM Packaging thus offers a pan-European supply concept that is unique within the industry. Moreover, we have also a leading position in individual countries in the Middle East, South America, and the Far East. With growing international presence, we are able to offer our multinational customers increasingly more global delivery opportunities and to create new opportunities for growth.

Europe is MM Packaging's primary sales market, with a share in sales of around 82 %. The share of Middle East/Asia increased further to 11 %, in particular due to the acquisition of the Tann-Group. 7 % of sales are accounted for by the Americas. The aim of our location policy consists in continuing to support our customers in their expansion with modern local production plants and occupying a leading position in attractive markets at an early stage.

Supplying a wide range of industries – balance and potential

Within packaging for consumer staples, MM Packaging covers a wide range of sectors, thus creating potential and balance. Our business thus covers the volume market of fast-moving consumer goods (FMCG) as well as the highly specialized markets of packages for tobacco products, pharmaceuticals, and personal care. MM Packaging holds a unique position in Europe through combining a variety of end markets and company size.

The technological facilities of the production plants which specialize in individual sales sectors and our account management enable us to satisfy individual market and product requirements with a high level of competitive strength. Customer focus is on large multinational consumer goods producers, which account for approximately 80 % of MM Packaging's 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 is made to local customers. In total, MM Packaging supplies over 1,800 customers worldwide.

MM Packaging has been growing ever since, both organically as well as through acquisitions.

Best practice – claim to technological leadership

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 then folded individually according to the demand of the customer branch and glued 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 external cartonboard. The filling of packages with consumer goods takes usually place at the customers' packing systems.

Aspiring best practice, MM Packaging uses all common state-of-the-art preprinting, printing, and finishing technologies. We improve the efficiency and quality of our products and processes firstly by constantly benchmarking the performance of individual production lines, and secondly by continuously investing in new technologies. Scope for innovation, often in close cooperation with our customers, is always important to us, with the goal of operational and technological leadership in the market. Current priorities are the increased specialization of locations, automation and digitalization, and the use of state-of-the-art high-performance machinery.

Cartonboard – essential raw material

The folding carton production starts with cartonboard as an essential raw material, constituting both the most important input and cost factor. The choice of the 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 our profit-center principle, MM Packaging procures the required recycled and virgin fiber-based cartonboard through its own purchase organization. Within the business with international consumer goods manufacturers, the purchase of cartonboard is also decided or negotiated by the customer. To cover major changes in cartonboard prices, long-term supply contracts with large customers generally include appropriate clauses which relate to reference values.

In addition to cartonboard and paper, other important raw materials of MM Packaging include inks, varnishes, and tools. The personnel intensity in folding carton production is consistently higher than in cartonboard production.

Strategic focus – cost leadership

MM Packaging has for a long time strategically pursued differentiation through industrial production in the European folding carton industry, which is largely dominated by trade businesses. Major characteristics of this are the use of economies of scale due to location size and production plant networks as well as the deployment of high-performance technology in production and logistics.

MM Packaging's guiding principle is the establishment of the "perfect factory". We therefore attach very high importance to continuously benchmarking and rolling out "best practice" across the division. For this purpose, the basic processes have been largely standardized and are continuously improved based on a constant performance monitoring among machines and locations to conform to the state of the art. Moreover, we focus on specific innovation and specialization initiatives for individual sales markets aiming at establishing cost and technology leadership over the long term.

This is crucial for competition because in comparison to the cartonboard industry, the European folding carton sector is more fragmented. Only one third of the market volume is concentrated on the five largest suppliers. Market barriers are generally lower, resulting in the business being characterized by a continuously intensely competitive environment.

Long-term growth course – organic and through acquisitions

As with the cartonboard market, the demand for folding carton packages correlates with private consumption. Due to the focus on packages for consumer staples, demand shows a high level of continuity in the mature main market Europe. MM Packaging's aim here is to organically grow further through market penetration while expanding and developing its position in individual markets through acquisitions.

Outside Europe, we still pursue the strategy of occupying a significant position in future markets on time to secure the greatest possible potential at a manageable risk. The main focus of existing production sites outside Europe lies on optimizing the size of operations through further growth.

Like before, MM Packaging will continue its expansion course, in a risk-conscious way, guided by value creation and striving for a sustainably high quality of results. The promotion of carton packaging as a particularly sustainable form of packaging is receiving considerable attention in the current market environment.

2 — DEVELOPMENT IN THE YEAR 2019

GENERAL ECONOMIC SITUATION

The global economy lost momentum in the course of the year 2019 and only regained traction at the end of the year. Increased uncertainties, mainly triggered by trade disputes, dampened global industrial production, world trade, and investment growth. The return to strongly expansive monetary policy in the advanced economies recently had a supportive effect on the economy. Against this background, economic growth in the euro area was also moderate, with a heterogeneous development among the Member States. The weakness of the German industry became particularly apparent, which, due to its close interdependence, especially in vehicle manufacturing, also resulted in a reduced level of industrial activity in many Central and Eastern European EU Member States. In contrast, however, the service sectors and private consumption have so far proved to be robust. The subdued development in production has not yet led to a reversal on the labor market, either. Inflation still remained at a low level due to the decline in energy prices.

INDUSTRY DEVELOPMENT

As with the overall economy, the situation on the European cartonboard and folding carton markets in 2019 was characterized by a slowdown in demand dynamics and short-term customer planning. In this context, the supply chain has become increasingly flatter and competition has intensified again.

On the fiber markets, the decline in prices for mixed recovered paper grades continued due to persistently low exports from Europe to Asia. In addition, prices for virgin fiber-based products, such as pulp, declined significantly from the high level seen at the end of 2018. While the market for recycled fiber-based cartonboard was characterized by a high degree of continuity in volume and prices, the market for virgin fiber-based cartonboard developed more weakly than in the previous year, but with higher average prices, as increased costs of fibers from 2018 were passed on. Capacity increases in the European cartonboard industry in 2019 mainly focused on "creeping capacity increase" through ongoing investment activities. There were, however, no significant changes in the group of the largest European cartonboard producers compared to the previous year. Capacity utilization in the industry was at a good level overall.

The topic of "plastic substitution" continued to receive attention in 2019 and will be actively taken up by all participants in the supply chain, cartonboard and folding carton producers, as well as consumer goods manufacturers and retailers. Nevertheless, the volume effects of this are currently still modest and have yet to be seen. At the same time, the trend towards lighter packaging and special solutions with special functionality has clearly continued.

Consolidation in the European folding carton industry progressed in 2019 in a competitive and restrained market environment, with a continuing trend towards increasing specialization. The overall supplier structure remains highly fragmented, however.

DEVELOPMENT OF BUSINESS 2019

GROUP

The Mayr-Melnhof Group was able to conclude the year 2019 with a further profit increase in succession despite slower market dynamics. Both divisions made a significant contribution to this and reported overall good capacity utilization in a competitive environment.

While the cartonboard division benefited from largely stable average prices and cost reductions, the profit in the packaging division was significantly higher than in the previous year, mainly due to the initial inclusion of the Tann-Group, which met the expectations. At 10 %, the Group's operating margin again developed at a high level.

In line with the sound profit development, a recommendation will be made to the 26th Ordinary Shareholders' Meeting on April 29, 2020, to increase the dividend for the financial year 2019 to EUR 3.60 per share (2018: EUR 3.20).

Consolidated income statements

Consolidated income statements (condensed version)

(in millions of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**	**+/-**
Sales	2,544.4	2,337.7	+ 8.8 %
Operating profit	255.3	217.1	+ 17.6 %
Financial result and result from investments	(4.2)	0.8	
Income tax expense	(60.9)	(53.7)	
Profit for the year	**190.2**	**164.2**	**+ 15.8 %**

The consolidated sales of the Group reached EUR 2,544.4 million and were thus 8.8 %, or EUR 206.7 million, above the previous year's value (2018: EUR 2,337.7 million). This increase was mainly acquisition-related from the packaging division and to a lesser extent from the cartonboard division. In the geographical distribution of sales, the share of Western Europe was lower at 54.6 % (2018: 59.5 %), while the shares of Eastern Europe, at 28.5 %, and those of business outside Europe, at 16.9 %, exceeded the previous year's figures (2018: 27.0 %; 13.5 %). Intra-group sales amounted to EUR 111.8 million (2018: EUR 108.7 million) and were mainly connected to deliveries from MM Karton to MM Packaging.

Group sales by destination

(in %)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Western Europe (excl. Austria)	52.5 %	57.3 %
Austria	2.1 %	2.2 %
Eastern Europe (incl. Turkey)	28.5 %	27.0 %
Asia and MENA	10.2 %	7.2 %
The Americas	5.3 %	4.9 %
Other	1.4 %	1.4 %
Total	**100.0 %**	**100.0 %**

Cost of sales

				Percentage of sales	
(in millions of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018	+/-	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Cost of materials and purchased services	1,362.1	1,304.0	4.5 %	53.5 %	55.8 %
Personnel expenses	350.2	313.0	11.9 %	13.8 %	13.4 %
Depreciation and amortization	112.5	96.0	17.2 %	4.4 %	4.1 %
Other expenses	92.7	77.1	20.2 %	3.7 %	3.3 %
Cost of sales	**1,917.5**	**1,790.1**	**7.1 %**	**75.4 %**	**76.6 %**

Cost of sales for operating performance, at EUR 1,917.5 million, were EUR 127.4 million, or 7.1 %, above the comparative value of the previous year (2018: EUR 1,790.1 million). This increase resulting from the Tann acquisition was countered by lower expenses for raw materials. The share in sales changed from 76.6 % to 75.4 %.

Selling and distribution, administrative and other operating expenses

				Percentage of sales	
(in millions of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018	+/-	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Personnel expenses	146.6	131.9	11.1 %	5.8 %	5.6 %
Depreciation and amortization	21.8	11.3	92.9 %	0.9 %	0.5 %
Other expenses	215.1	200.0	7.6 %	8.4 %	8.6 %
Selling and distribution, administrative and other operating expenses	**383.5**	**343.2**	**11.7 %**	**15.1 %**	**14.7 %**

Selling and distribution costs, administrative and other operating expenses also increased from EUR 343.2 million to EUR 383.5 million, primarily acquisition-related. Their share in sales changed from 14.7 % to 15.1 %.

EBITDA rose by 20.1 %, or EUR 65.2 million, to EUR 389.6 million (2018: EUR 324.4 million), the EBITDA margin to 15.3 % (2018: 13.9 %). At EUR 255.3 million, operating profit was 17.6 %, or EUR 38.2 million, above the previous year (2018: EUR 217.1 million), with MM Packaging accounting for around 60 % and MM Karton for around 40 % of this growth. In the course of the initial consolidation of the Tann-Group, one-off expenses from acquisition effects of EUR -4.8 million were reported due to the recognition of order backlog and inventory measurement. The Group's operating margin totaled 10.0 % (2018: 9.3 %), the return on capital employed amounted to 15.4 % (2018: 15.0 %).

Financial income totaling EUR 1.4 million (2018: EUR 1.3 million) was offset by financial expenses of EUR -8.4 million (2018: EUR -6.1 million). "Other financial result – net" changed to EUR 2.8 million (2018: EUR 5.6 million) in particular due to higher foreign currency gains in the previous year.

Profit before tax increased accordingly by 15.2 % to EUR 251.1 million (2018: EUR 217.9 million). Income tax expense amounted to EUR 60.9 million (2018: EUR 53.7 million), resulting in an effective Group tax rate of 24.3 % (2018: 24.7 %).

Profit for the year, earnings per share

Profit for the year went up by 15.8 % to EUR 190.2 million (2018: EUR 164.2 million). The net profit margin remained almost unchanged at 7.5 % (2018: 7.0 %). An unchanged total average of 20,000,000 shares was outstanding in the reporting year, resulting in earnings per share of EUR 9.49 (2018: EUR 8.18) based on the profit for the year attributable to the shareholders of the Company of EUR 189.7 million (2018: EUR 163.7 million). Cash earnings generated by the Group rose to EUR 310.4 million (2018: EUR 269.7 million), achieving a cash earnings margin of 12.2 % (2018: 11.5 %).

Assets, capital, and liquid funds

Consolidated balance sheets (condensed version)

(in millions of EUR)	Dec. 31, 2019	Dec. 31, 2018
Non-current assets	1,442.2	1,003.8
Current assets	980.5	1,061.9
Total assets	**2,422.7**	**2,065.7**
Total equity	1,508.3	1,384.8
Non-current liabilities	419.8	307.6
Current liabilities	494.6	373.3
Total equity and liabilities	**2,422.7**	**2,065.7**

As of December 31, 2019, the Group's total assets amounted to EUR 2,422.7 million and were thus EUR 357.0 million above the value at the end of 2018 (EUR 2,065.7 million). This increase is primarily due to the initial consolidation of the Tann-Group. The Group's total equity rose from EUR 1,384.8 million (December 31, 2018) to EUR 1,508.3 million, mainly as a result of profit. The equity ratio maintained a sound level at 62.3 % (December 31, 2018: 67.0 %). Return on equity was at 13.1 %, after 12.1 % in the previous year.

Financial liabilities, primarily of a long-term character, increased from EUR 211.7 million at year-end 2018 to EUR 345.4 million on December 31, 2019, due to the acquisition and the financing of the company purchase as well as the first-time inclusion of lease liabilities according to IFRS 16.

At EUR 126.8 million, total funds available to the Group were below the comparative figure for the previous year (December 31, 2018: EUR 261.1 million), mainly owing to the purchase price payment for the acquisition of the Tann-Group and the dividend payment. Net debt thus amounted to EUR 218.6 million at the end of 2019 (December 31, 2018: net liquidity of EUR 49.4 million). Furthermore, credit lines totaling EUR 446.0 million were available to the Group (December 31, 2018: EUR 392.9 million), which can be used at any time.

Non-current assets grew largely acquisition-related from EUR 1,003.8 million to EUR 1,442.2 million. Property, plant and equipment went up by EUR 181.9 million to EUR 1,034.5 million (December 31, 2018: EUR 852.6 million), with a major part of the increase being due to the company purchase and the first-time application of IFRS 16 (Leases). Current assets, at EUR 980.5 million, were below the value at the end of 2018 (EUR 1,061.9 million).

Cash flow development

Consolidated cash flow statements (condensed version)

(in millions of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**
Net cash from operating activities	331.4	250.1
Net cash from investing activities	(380.6)	(119.0)
Net cash from financing activities	(87.1)	(69.3)
Effect of exchange rate changes	2.1	1.3
Net change in cash and cash equivalents (< 3 months)	**(134.2)**	**63.1**
Cash and cash equivalents (< 3 months) at the end of the year	**126.8**	**261.0**

At EUR 331.4 million, cash flow from operating activities was EUR 81.3 million above the comparative value of the previous year (2018: EUR 250.1 million). The higher cash-effective result, which contrasted with higher income tax payments, substantially contributed to this increase.

Cash flow from investing activities changed from EUR -119.0 million to EUR -380.6 million. This difference particularly results from the purchase price payment for the acquisition of Tann-Group in the amount of EUR 267.7 million as well as an increase of payments for the acquisition of property, plant and equipment and intangible assets from EUR 130.0 million to EUR 136.1 million.

Investment expenditures at MM Karton amounting to EUR 75.1 million (2018: EUR 75.8 million) were mainly related to technical modernization and expansion with a focus on the sites in Neuss and Gernsbach, Germany, Kolicevo, Slovenia, and Eerbeek, Netherlands.

Investment expenditures at MM Packaging totaled EUR 61.0 million (2018: EUR 54.2 million) with a particular focus on technological renewals in Germany, Great Britain, France, Chile, Poland and Austria.

Cash flow from financing activities changed from EUR -69.3 million to EUR -87.1 million. The use of short-term bank credit facilities to finance the acquisition was contrasted by loan repayments and the dividend payment for the financial year 2018.

Definition of financial indicators

Cash earnings
Sum of profit for the year before depreciation, amortization as well as impairment of property, plant and equipment and intangible assets and before non-cash-effective and deferred taxes.

Cash earnings margin
Cash earnings divided by sales.

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/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, average provisions for non-current liabilities and charges and average obligations with regard to non-controlling (minority) shareholders according to IAS 32, 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 Karton

Restrained demand and intensified competition characterized the general conditions on the European cartonboard markets in 2019. Against this background, MM Karton was nevertheless able to solidly maintain its position, retain or increase market shares and convince with attractive, highly functional and sustainable packaging solutions. We continued to attach high priority to price discipline and the pursuit of a selective sales policy. The specialization of the mills as well as growth with an optimized product portfolio and the expansion of our focus on European business were pursued consistently.

Prices for mixed grades of recovered paper on the fiber markets declined gradually, while those for products based on virgin fibers decreased from a high level.

At 97 % (2018: 97 %), capacities in the division were again highly utilized. Investments focused on enabling further growth through continuous technological development of our mills and increasing product and service performance. Since 2018, we have attached special priority to digitalizing our business processes, and today, we benefit from high speed, perfection, and efficiency.

Owing to more short-term planning of customers, the average order backlog of 68,000 tons was below the comparative figure of the previous year (2018: 77,000 tons).

Cartonboard production grew by 3.5 %, or 59,000 tons, to 1,723,000 tons (2018: 1,664,000 tons). 1,382,000 tons (80 %) were attributable to recycled fiber-based cartonboard and 341,000 tons (20 %) to virgin fiber-based cartonboard (2018: 1,313,000 tons or 79 % and 351,000 tons or 21 %, respectively). Based on the average number of employees, 687 tons per employee were produced (2018: 663 tons). At 1,705,000 tons, cartonboard sold was slightly below production and 2.5 % above the previous year (2018: 1,663,000 tons).

Sales increased in line with sold volumes to EUR 1,078.3 million (2018: EUR 1,062.2 million). As in the previous year, sales to European markets were slightly higher, with a share of around 65 % in Western Europe (2018: 63 %) and 22 % in Eastern Europe (2018: 21 %), resulting in the sales share in countries outside Europe decreasing to 13 % (2018: 16 %). With a share of deliveries of 12 %, or 201,000 tons (2018: 12 % or 193,000 tons), MM Packaging was again MM Karton's largest customer.

Operating profit grew by 14.6 %, or EUR 14.1 million, to EUR 110.5 million (2018: EUR 96.4 million), primarily due to lower direct costs and slightly better average prices. The operating margin reached 10.2 % following 9.1 % in 2018, the return on capital employed was at 17.2 % (2018: 15.9 %). Cash earnings totaled EUR 129.0 million (2018: EUR 115.6 million), resulting in a cash earnings margin of 12.0 % (2018: 10.9 %).

Divisional indicators MM Karton

(in millions of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018	+/-
Sales[1)]	1,078.3	1,062.2	+ 1.5 %
Operating profit	110.5	96.4	+ 14.6 %
Operating margin (%)	10.2 %	9.1 %	
Return on capital employed (%)	17.2 %	15.9 %	
Tonnage sold (in thousands of tons)	1,705	1,663	+ 2.5 %
Tonnage produced (in thousands of tons)	1,723	1,664	+ 3.5 %

[1)] including interdivisional sales

MM Packaging

In the course of weaker economic conditions in 2019, planning on the European folding carton market was also more restrained and stocks were reduced along the entire supply chain. Consequently, and due to still sufficient capacity reserves, the high level of competitive intensity and consolidation in the industry continued.

Despite temporary heterogeneous capacity utilization among the plants, MM Packaging reported a stable overall development as a result of the good order backlog. Measures aimed at improving cost efficiency and value added as well as gaining new business were pursued and implemented systematically. In this connection, the strategic focus remains on maintaining strength and exploiting growth opportunities on individual markets such as FMCG (fast moving consumer goods), packaging for tobacco products, pharmaceuticals, and personal care with specialized plants through maximum cost efficiency and quality.

Particular focus in 2019 was placed on integrating the Tann-Group acquired at the beginning of the year into the division. This developed according to plan using synergies arising from technological proximity and organizational integration. Like the development in the course of the year, the annual result of MM Packaging is mainly characterized by the initial inclusion of the Tann-Group.

Processed tonnage of cartonboard and paper increased acquisition-related by 2.5 % to 785,000 tons (2018: 766,000 tons).

Sales went up by 14.0 %, or EUR 193.8 million, to EUR 1,578.0 million (2018: EUR 1,384.2 million), of which 49 % and 33 % were accounted for by Western and Eastern Europe and 18 % by business outside Europe (2018: 57 %; 32 %; 11 %). MM Packaging now supplies a total of over 1,800 customers in various consumer goods sectors. The main product groups are packages for food, pharmaceutical and tobacco products. A significant share of business relates to multinational key accounts, reflecting the high degree of producer concentration. In 2019, around 41 % of sales were generated with the five largest customers (2018: 41 %).

Operating profit increased by 20.0 %, or EUR 24.1 million, to EUR 144.8 million (2018: EUR 120.7 million), with one-off expenses of EUR -4.8 million being recorded as a result of the initial consolidation. The operating margin therefore only rose slightly from 8.7 % to 9.2 %.

The return on capital employed was at 14.2 % (2018: 14.3 %). Cash earnings went up by 17.7 % to EUR 181.4 million (2018: EUR 154.1 million), while the cash earnings margin reached 11.5 % (2018: 11.1 %).

Divisional indicators MM Packaging

(in millions of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**	**+/-**
Sales[1]	1,578.0	1,384.2	+ 14.0 %
Operating profit	144.8	120.7	+ 20.0 %
Operating margin (%)	9.2 %	8.7 %	
Return on capital employed (%)	14.2 %	14.3 %	
Tonnage processed (in thousands of tons)	785	766	+ 2.5 %

[1] including interdivisional sales

3 — RESEARCH AND DEVELOPMENT

The research and development activities of the Mayr-Melnhof Group focus on sustainably securing and strengthening competitiveness and growth capability through progress in the two divisions MM Karton and MM Packaging.

This is based on our strategic orientation of maintaining market leadership in the long term on the basis of cost, technology and innovation leadership. We therefore aim at identifying market needs and future trends at an early stage and exploiting them to create added value for our customers and the Company by using state-of-the-art technologies. Thereby, we draw on a broad spectrum of resources and regularly include aspects of the entire supply chain in our product solutions.

Innovation – interdisciplinary collaboration within the Group
Our R&D activities are based on collaboration between experts from various areas of the Group, drawing on the long-standing knowledge base in the divisions. Moreover, external specialists and research institutions are involved when appropiate. Both divisions have a proven innovation process that ensures that developments are accompanied by the necessary resources from idea generation to implementation.

We pay equal attention to product and process innovation, with the common goal of bringing innovation to the market quickly and generating added value based on them in a timely manner. We strive to ensure that our products and methods comply with the latest requirements and technical possibilities at an early stage. Therefore, we take a proactive approach that includes aspects of basic research as well as visionary concepts and ideas. We ensure that our products continue to develop in a future-orientated manner and always in compliance with regulations through close cooperation with standardization and legislative bodies.

A trend towards sustainability and naturalness – efficiency in implementation
Sustainable, plastic-free packaging, a natural appearance, convenience, and safety as well as perfect integration into online sales and communication are currently the defining requirements and trends in packaging. In close cooperation with our customers we develop individual solutions in line with these specifications and ensure maximum performance and efficiency in their implementation.

Innovation activity in the MM Karton division in 2019

The innovation activities of MM Karton in 2019 again aimed at further improving product properties such as appearance, printability, stiffness, and barrier quality of existing products but also at developing completely new products with special properties (e.g., grease and migration barriers). Thereby, we always attach great importance to high efficiency in production and the environmentally friendly use of resources. In addition, we pay attention to the best possible performance of our cartonboard products during their further processing already at the stage of their development.

Fundamental findings regarding the combination of known but also new materials are provided by the research center of the Austrian cartonboard mill at Frohnleiten. A particular focus in 2019 was placed on cooperation with external research institutes, universities, customers, and suppliers. One of the aspects examined was the industrial feasibility of new processes.

Share of new products increased further
The share of new or realigned products not older than four years already accounted for more than one fifth of total sales of MM Karton in 2019. It is our aim to further increase this share through close cooperation between sales and technology with our customers. The strategic background is based on the "Renovation" project, which redefines the products of individual mills for specific markets and applications in order to generate growth and added value through value creation.

Market launches in 2019 particularly involved the following products:

The Astracolor™ Performance recycling quality from the Austrian mill at Frohnleiten provides maximum efficiency in the processing and packaging process. It has excellent surface properties and particularly good stiffness for excellent packaging stability in the end product.

The high-quality recycled fiber-based cartonboard UT Tray Black from the Austrian mill at Hirschwang with an environmentally friendly moisture barrier was specifically designed to meet the requirements of fruit and vegetable trays. The black front ensures the optimum presentation of colorful fruit and vegetables while the brown back conveys naturalness.

Innovation activity in the MM Packaging division in 2019

MM Packaging's innovation network
MM Packaging's innovation network offers relevant and convincing solutions for the success of our customers at every stage of the innovation process. It comprises the following institutions: PacProject, the creative Innovation Center in Hamburg, the Premium Printing Center in Trier, and the Technical Competence Center for coordinating targeted customer briefings with the local Packaging Development Centers and individual plants. In order to also take into account the customers' needs in terms of technical orientation and equipment, close cooperation takes place with the Divisional Technical Support Team.

MM Packaging's innovation process starts with the creation of trend studies, idea generation, and concept studies up to the first prototypes. These first steps usually take place at PacProject in Hamburg.

At the Premium Printing Center in Trier, highly innovative technologies are used to create packaging designs with extraordinary effects in the shortest possible time.

Current priorities for innovation

Natural appearance was the trend of the year 2019 in the packaging industry. The technical possibilities for developing products with a natural appearance were demonstrated and implemented in workshops together with customers. Above all, it is the interplay of a wide variety of cartonboard surfaces, artwork, coatings, and printing inks matched to the surface that makes it possible to present folding carton packaging in a natural look.

Innovation also focused on the reduction or replacement of plastic in packaging for a wide range of daily needs. MM Packaging's broad field of innovation ranged from packaging for electronics to tissue boxes and sugar packaging.

Awards for special sustainability

MM Karton was honored in several categories at the European Carton Excellence Awards, the most prestigious competition for cardboard packaging. Packaging solutions in qualities such as Multicolor Mirabell™, Multicolor Spezial™, MM Topliner™, Accurate™, FOODBOARD™ and Multicolor Belvedere™ gained awards for their sustainability and environmental friendliness.

Furthermore, MM Packaging and MM Karton received joint prizes at the "Carton Austria Awards" for particularly sustainable, plastic-free, and visually outstanding packaging.

4 — RISK MANAGEMENT

The Mayr-Melnhof Group is exposed to a variety of general and industry-specific risks in connection with its global operations. The current or expected economic situation in particular has a significant influence on the Group's risk situation owing to the special significance of private consumption for the demand for cartonboard packaging. Since the geographical business focus is on Europe and as cartonboard packaging is defined as a local product due to transport costs and service, the economic conditions in the major European economies are of great importance. In procurement, the development of the fiber and energy markets is of particular relevance in risk assessment. The risk situation of the Group can be classified as essentially unchanged for the financial year 2019 and the beginning of 2020. Taking into account the safety and control instruments already in use and the early warning indicators, no significant risks are currently identifiable that could endanger its existence or impair its development.

Owing to a long-term focus on the core business areas the Group has a solid base for identifying potential risks at an early stage and to adequately assess any 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 over 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 Risk prevention and risk reduction are given priority and are, as far as economically justifiable, achieved by appropriate control measures and complemented by the Group’s insurance program.

The "Risk Management Compliance" department which directly reports to the Management Board 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 assesses the functionality of the risk management system and reports to the Supervisory Board and the Management Board.

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

Sales

The demand for cartonboard packages correlates with private consumption, especially with the demand for consumer staples. Market risks may thus arise in particular from the overall economic development as well as political and regulatory conditions on individual sales markets.

Owing to sufficiently available capacities of providers, the sales markets of the cartonboard and packaging division have been characterized by intensified competition for many years. The Group therefore sustainably pursues a strategy of further asserting and extending the market leadership position of both divisions over the long term through cost, technology, and innovation leadership.

The Group has a total of several thousand customers. The cartonboard division sells unprocessed cartonboard in particular to the medium-sized European folding carton industry and generates around 49 % of divisional sales with 20 main customers, including MM Packaging. The packaging division supplies printed cartonboard packages to consumer goods manufacturers and generates around 80 % of divisional sales with multinational customers. The level of dependency on individual customers is still considered as manageable.

Customers assess their supplier base and locations network in constant evaluations in order to optimize costs and exploit growth opportunities. This can lead to relocation and new allocation of business. 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, a systematic expansion of our customer base, and a regular participation in tenders. Due to the possibilities of digitalization, potentials for customer retention are used especially in business processing and service.

The increasing public interest in sustainability and health in recent years 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. Especially packaging with food contact is subject to strict legal regulations and customer requirements, and MM ensures compliance with these through a variety of effective measures. Embedded in an institutionalized framework, both divisions continuously implement R&D activities that undergo continuous further development. 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. As a result, 100% of all MM cartonboard grades are tested with regard to their impact on consumer health and safety. In particular in the area of food packaging, additional established safety measures ensure compliance with strict legal and customer requirements, thus contributing to customer satisfaction and safeguarding sales. These include comprehensive certification in accordance with food safety and hygiene standards, continuous R&D activities, and quality controls with regard to the interaction between packaging and contents (migration studies), as well as measures to meet product traceability requirements.

In terms of sustainable, environmentally friendly packaging solutions, MM benefits as a whole from a positive perception of cartonboard as a packaging material by the general public and customers. Particular importance is currently attached to substitution possibilities for plastic packaging using cartonboard applications which are being taken up proactively and in a customer-orientated manner. Following the trend towards light weight cartonboard packages, MM Karton has extended 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. This is because more and more countries around the world are prescribing "plain packaging", i.e. standard packages without a brand logo and with larger warning labels. The Member States in the European Union have implemented the EU Tobacco Products Directive (TPD2). 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. Companies operating for the tobacco industry may be subject to discrimination in the public perception.

Production

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

This primarily involves an economical use of resources (especially of fibers, cartonboard, energy, water, chemicals, and transport) for our production, a high solution expertise, and guaranteeing quality while maintaining a sound financial conduct. We therefore focus on continuous performance benchmarking among locations, innovation, and sustainable investments in the latest technology. Potential further automation is actively pursued and implemented. The aim is to establish the highest possible standards throughout the Group.

A high degree of the plant's technical availability (operational readiness) is crucial in both cartonboard 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 opportunity to produce individual products in various locations constitutes a core element.

Meeting required quality standards and norms is an essential precondition for the sustainable competitiveness and attractiveness of our products and services. Constant quality assurance measures across 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 national and international standardization bodies and lobbies 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. Furthermore, investment projects are accompanied 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 Karton, these include especially fiber materials, in particular recovered paper and groundwood pulp, as well as energy, chemicals, and logistics services. With regard to the division MM Packaging, these include primarily cartonboard and paper as well as printing inks, varnishes, glue and finishing materials, but also tools and packaging materials. For procurement there is basically a risk of availability concerning quantity and quality as well as a price risk. We particularly counter the risk of availability through regular market and demand monitoring and continuous contact with a majority of suppliers. We ensure compliance with the agreed properties by incoming goods inspections, continuous quality monitoring, and visits to suppliers. Where reasonable and possible, tenders are conducted for current purchasing volumes.

Recovered paper is the most essential raw material for MM Karton and sufficiently available in Europe. The division procures it via its own European procurement organization mainly by monthly or spot orders as well as longer-term contracts. Long-term contracts make it possible to absorb short-term price peaks. As a result of high recycling quotas in Europe and existing reserves, sufficient supply of recovered paper is assured. The additionally required groundwood pulp is mainly produced internally in the cartonboard 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.

Significant price changes of strategically important input factors are taken into account by appropriate clauses in long-term agreements.

Energy (gas and electricity) is an input factor of strategic importance, especially for the division MM Karton. 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. The minimum purchase quantities are defined in various 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 development 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 team with Group-wide responsibility. Furthermore, measures aimed at reducing specific energy consumption are continuously implemented.

Due to the political objective of reducing greenhouse gas emissions in the industry, all mills in the cartonboard division are confronted with a regulatory risk regarding the availability of emission permits (CO_2 certificates) which are issued restrictively according to the "cap & trade" principle. Thanks to energy-efficient facilities and correspondingly good benchmarking results, MM Karton continues to benefit from a partly free allocation of emission permits and currently holds sufficient CO_2 certificates. It is expected that the EU will gradually reduce free allocations in order to create incentives for further emission reductions. If necessary, MM Karton can however, procure missing certificates on the free market under the EU emission trading system, whereby a price risk must be taken into account. MM Packaging also faces the risk of indirect emissions pricing. Based on the European Effort Sharing Regulation, certain sectors (heating and transport) face a CO_2 levy, which may have an impact on the cost side of both divisions as a result of onward charging. Further details on greenhouse gas emissions can be found in the consolidated non-financial report.

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 bonus systems as well as a practiced 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.

Long-term foresighted succession planning and the promotion of junior employees within the Group are managed via a central "Corporate Human Resources" department. 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 takes a large number of support and prevention measures with the goal of maintaining our employees' health and productivity at a high level over their entire working lives.

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 risk monitoring and minimizing, 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 continuing low level of interest rates has methodically led to a low discount rate, which increases 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.

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 credit insurance for all customers, with the exception of selected international customers enjoying 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 the 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 "Corporate Accounting" and "Planning and Reporting" are responsible for developing up-to-date uniform Group guidelines as well as for the organization and control of 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 systematically 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.

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 checks. Risks regarding information security are countered by a wide range of security measures according to the Group-wide information security strategy and by the function of an Information Protection Officer who ensures the Group-wide establishment and continuous update of security standards. Employees are instructed in regular security courses and trained to maintain a high level of attention.

Other risks

Compliance risks arising from possible non-conformity with standards, laws, ethical codes of conduct, and, where applicable, voluntary commitments are managed especially by means of protective measures in the systems, regular, systematic compliance monitoring, the four-eyes principle as well as guidelines, for example the Code of Conduct (available on our website at https://www.mayr-melnhof.com/en/about-us/responsibility/code-of-conduct/). Furthermore, we have created the function of a Compliance Officer who can act autonomously and who is also responsible for compliance training and internal and external reporting.

The corporate governance report which is an integrated part of the annual report is available on our website at https://www.mayr-melnhof.com/en/about-us/responsibility/corporate-governance/.

We address the "legal compliance" risk in particular through the function of a Legal Manager who is responsible for monitoring and controlling the risk area and, if necessary, by calling in external experts. The aim is to comply with legal requirements, the best possible contractual design of business relationships and, finally, to comply with these contractual requirements. This is intended not least to prevent the increasing risks of a breach of the law and possible sanctions resulting from ever more stringent regulation.

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 a.

Restrictions concerning the voting rights and the transfer of shares
Approximately 57 % 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. Modifications of the syndicate agreement require 90 % of the voting rights.

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 2019:

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 83 et seq.).

7 — OUTLOOK ON THE FINANCIAL YEAR 2020

This outlook reflects the assessment of the Management Board as of March 16, 2020, and does not take into consideration the effects of any acquisitions, disposals, or other structural changes in 2020. 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.

European economies are showing low momentum. Nevertheless, private consumption continues to show a stable development and, thus, also the demand for cartonboard packaging. Against this background, the Group's cartonboard and packaging production facilities have overall again been highly utilized since the beginning of the year. Sales markets, however, remain characterized by intense competition due to sufficient capacities in the industry.

MM Karton continues to focus on maintaining price levels. The goal for both divisions is to continue to grow in 2020 and maintain profit quality at a high level.

Ongoing investment in state-of-the-art technological innovations and ongoing measures to improve cost efficiency and optimize the product and sales program are intended to make this possible also in the future.

The aim is to follow up the record year 2019 in the best possible way in 2020. After a good beginning of the year we consider the challenges in the course of the year increasing. As in the past, we will continue to pay high attention to the future-orientated development of our production facilities and products and the risk-conscious continuation of our global acquisition course.

Vienna, March 16, 2020

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p.

Franz Hiesinger m. p.

Consolidated Non-financial Report

SUSTAINABILITY IN THE MM GROUP

STAKEHOLDERS

MATERIAL TOPICS

ALIGNMENT WITH SUSTAINABLE DEVELOPMENT GOALS (SDGS)

SUSTAINABILITY TOPICS

Material and product responsibility
1. Renewable raw materials and recyclability
2. Ecological criteria in procurement
3. Product safety

Environmental management
1. Energy consumption and emissions in production
2. Transport emissions
3. Water consumption in production
4. Waste in production

Employees
1. Employee education and training
2. Employee safety and health
3. Working conditions/environment

Society
1. Compliance with laws, standards and rules of conduct
2. Anti-corruption, anti-trust compliance

CONTEXT OF NON-FINANCIAL TOPICS WITH BUSINESS DEVELOPMENT

NON-FINANCIAL INDICATORS

ABOUT THE CONSOLIDATED NON-FINANCIAL REPORT

INDEPENDENT LIMITED ASSURANCE REPORT

Sustainability in the MM Group

Introduction

Sustainability has always been a decisive success factor in the orientation and management of the MM Group. Long-term, responsible management is at the center of our activity, independent from fashions and trends. Implementing circular economy is an intrinsic part of our business through the use of predominantly renewable raw materials in the production of high-quality cartonboard packaging products that can be fully recycled after use. We assume full responsibility in our value-added process, with the aim of creating added value and opportunities both in economic terms and for our employees, the environment and society.

The long-term strategic positioning of the Company as market leader based on cost, technology and innovation leadership as well as the MM Group's rules of conduct serve as foundation and orientation. The rules of conduct are comprised in our Code of Conduct and include the universal principles of the UN Global Compact in the areas of labor standards, human rights, environmental protection and the fight against corruption. This approach is supported by continuous objectives and the allocation of resources within the Group, enabling us to ensure sustainability and a successful future for the MM Group.

The MM Group is committed to the sustainability goals of the United Nations, the Sustainable Development Goals (SDGs), and has been a member of the UN Global Compact since February 2020.

The continuous exchange with our stakeholders, whose expectations we want to learn about, has always been important to us. The impulses we gain from this and our aspiration to implement best practices allow us to improve continuously and thus exercise responsible global citizenship. Our thanks here go especially to our employees, because it is due to their long-term commitment and dedication that MM is able to achieve lasting progress in economic, ecologically social, and societal matters.

The current trend towards sustainable packaging forms means that cartonboard packaging is very well positioned due to its high recyclability and natural recovery of fibers.

This consolidated non-financial report describes non-financial topics on which the business of the MM Group has a major impact or which are of particular interest for our stakeholders and how we deal with them. In doing so, we fulfill our statutory obligation to prepare a consolidated non-financial report according to Section 267 a of the Austrian Commercial Code, and we report in detail how we deal with matters of economic, social, and ecological interest. Our aspiration is to continuously optimize our annual reporting, especially by taking into account the findings and requirements of our ongoing stakeholder dialog.

The topics described below were determined in the course of a materiality analysis in the Company. Relevant performance indicators were identified on the basis of the GRI Standards, and the appropriate internal experts were involved. They also provided assistance in taking into account the interests of our stakeholders. The definition and collection of non-financial indicators were analyzed throughout the Group and are intended to be further developed for future reports.

Business model

The production of cartonboard and folding cartons for consumer goods is the core business of the Mayr-Melnhof Group, which is managed in two divisions, MM Karton and MM Packaging. About 10,000 employees in the Group produce approximately 1.7 million tons of cartonboard per year and process approximately 785,000 tons of cartonboard and paper, generating annual sales of around EUR 2.5 billion. MM is present in 20 countries with 7 cartonboard mills[1] and 45 packaging sites and sells its products to around 100 countries worldwide, with Europe as main market.

MM Karton is the world's largest producer of coated recycled fiber-based cartonboard and a major producer of virgin fiber-based cartonboard. The product and service portfolio of the cartonboard division comprises a wide range of cartonboard grades for the specific requirements of a great variety of consumer goods industries in both the food and non-food sectors. In line with the product portfolio, which comprises around 80 % recycled and 20 % virgin fiber-based cartonboard, the major share of the raw material used is recycled fiber. The significantly lower virgin fiber share consists mainly of groundwood pulp and a smaller proportion of cellulose. Besides fibers, the most important input factors are coating chemicals for the cartonboard surface and energy, which mainly comes from natural gas. The main market for unprocessed cartonboard is packaging production. All cartonboard products of MM Karton are produced using renewable fibers and are both recyclable and biodegradable. Customers are mainly folding carton producers, but consumer goods manufacturers also have an influence on the choice of cartonboard.

MM Packaging is the largest producer of folding cartons in Europe and in several countries outside Europe. Production focuses primarily on manufacturing packaging for everyday consumer goods, both food and non-food. Business activities cover both the volume market of fast-moving consumer goods (FMCG) and highly specialized packaging markets, such as tobacco, pharmaceuticals, and personal care. Recycled and virgin fiber-based cartonboard are used as raw materials in roughly equal proportions, with the majority of cartonboard being purchased from outside the MM Group. In addition to the raw material cartonboard, inks, varnishes and die-cutting tools are important input factors in the production of packaging which is more labor-intensive but more energy-extensive than cartonboard production. MM Packaging's customers include both, multinational and local consumer goods producers.

[1] In addition, MM Karton produces virgin fibers at the FollaCell site.

The recycling rate for cartonboard and paper currently totals around 85 % in Europe. Circular economy is an inherent part of the MM Group's business model through the use of recovered paper in cartonboard production and the manufacture of recyclable cartonboard packaging.

Impact of business activities on climate change

Cartonboard and cartonboard packaging have two specific advantages:

- They are based on wood, a renewable resource. Wood absorbs CO_2 during its growth phase.
- They store carbon and, through recycling, CO_2 remains bound and is not returned to the atmosphere.

When forests are sustainably managed, as in Europe, carbon sequestration in wood increases steadily or at least remains stable.

In 2019, the CO_2 footprint for cartonboard was recalculated by the RISE Research Institutes on behalf of Pro Carton. In addition to the fossil emissions previously considered exclusively, resulting mainly from energy production, the new method now also covers biogenic emissions and their decomposition as well as direct land use changes. With a CO_2 eq/t value of 326 kg, cartonboard has extremely low CO_2 ratings compared to other packaging materials, such as plastic, glass, or aluminum. This value is the result of a methodologically new study initiated by Pro Carton and available at https://www.procarton.com/wp-content/uploads/2019/10/Carbon-Footprint-Report-2019-Exec-Summary-English-1.pdf. The CO_2 footprint of cartonboard for 2019 has improved by 9 % compared to 2015 when applying the old method.

Relevance of climate change for the business model

We currently consider the direct and short-term effects of climate change on the business of the MM Group to be insignificant, both, on the sales and procurement side and in terms of overall conditions. From today's perspective, we also do not expect any significant changes in the medium term due to the geographical positioning of the MM Group and the availability of raw materials and sustainable sales markets. The effects of possible future regulatory measures on our business environment are uncertain and unpredictable.

Opportunities derive in particular from the positive positioning of the renewable product cartonboard packaging with low CO_2 values and high recycling rates. Risks can arise above all from regulatory changes with regard to the raw materials and energy used and transportation. MM pursues consistent minimization of specific consumption as well as an optimization in the planning, use and choice of means of transport.

Strategy

Safeguarding sustainable profitability is at the center of the MM Group's corporate strategy. It forms the basis for maintaining our current position and further expanding the Group. MM strategically focuses on four pillars in order to safeguard its profitability over the long term:

- Focus on core business,
- Market leadership through cost, technology and innovation leadership,
- Long-term orientation, and
- Expansion.

This approach has proved very successful in the past and will therefore be continued.

Focus on core business
By focusing on cartonboard and folding carton products, we concentrate our resources on our core business and implement circular economy as an integral part of our business activity. We manufacture products from predominantly renewable raw materials that can be completely recycled after use.

Market leadership through cost, technology and innovation leadership
In our business, sustainable success on the market and with customers is achieved through continuously improving cost efficiency, technological progress and the willingness to take new paths. We aim to maintain long-term market leadership through a high level of competitiveness by consistently implementing best practice and investing in these three dimensions. We are convinced that this aspiration can only be achieved in a corporate culture characterized by profitability, transparency and trust, in which our actions are based on responsibility, performance and passion as fundamental values of MM that are put into practice. We thereby create progress and sustainability for both, the Company and our stakeholders.

Long-term orientation
Our business development focuses on the long term and prioritizes profitability and solidity. Principles of conduct which are summarized in our Code of Conduct (CoC) and include the universal principles of the UN Global Compact in the areas of human rights, labor standards, environmental protection and the fight against corruption provide the guidelines for responsible conduct of our employees. We also expect our business partners to comply with all legal regulations and industry standards at all times and to implement similar principles of responsibility. We oblige our suppliers to comply with our CoC in our terms and conditions of purchase.

For us, good corporate governance, understood as the responsible management and control of companies that go beyond the legal requirements and aimed at long-term value creation is both an aspiration and an obligation. This includes efficient cooperation between the Management Board and the Supervisory Board and respect for shareholders' interests as well as openness and transparency in corporate communication. Our annual Corporate Governance Report covers developments in this area as well as compliance with the Austrian Corporate Governance Code (ÖCGK), to which the Company has committed itself.

As a further essential pillar of its long-term orientation, the MM Group operates a comprehensive risk management system that encompasses all business units and divisions. The Management Board defines the risk policy and the overall parameters of the risk management system.

Expansion

Growth from a position of strength and expansion in order to sustainably strengthen the MM Group determine our path. In doing so, we always ensure a balance between opportunities and risks for the Company. We achieve expansion by improving the competitiveness of existing sites, greenfield projects and acquisitions. Sustainable growth thus takes place both organically and through acquisitions. We accompany our customers in their expansion processes, open up new sales areas and penetrate existing markets with highly competitive and innovative products.

Responsible parties – organizational integration

The ultimate responsibility for non-financial matters lies with the Management Board.

In the Group, the central function "Sustainability Management" has been set up, reporting directly to the Management Board and ensuring that sustainability management is implemented and operated on behalf of and in the interests of the Management Board. This central function was set up to conduct a materiality analysis, data collection, and reporting. The respective local management exercises its managerial duties, with each employee making her or his own contribution. Sustainability management therefore does not take place in an isolated way, but as an integral element of the organization and its processes.

PwC Wirtschaftsprüfung GmbH, Vienna, has performed an independent audit of the consolidated non-financial report with limited assurance. The respective report can be found on page 128.

The Supervisory Board complies with its legal obligation of auditing the consolidated non-financial report.

Stakeholders

The MM Group is aware of its responsibility vis-à-vis a large number of stakeholder groups and assumes this responsibility with the aim of creating added value.

In an analysis along the value added chain involving internal experts from various business areas, the following stakeholder groups were identified:

Stakeholders of the MM Group

- Customers and consumers
- Employees
- Capital markets (e.g., shareholders, analysts)
- Suppliers
- Public bodies (e.g., politicians, authorities, inspection bodies, NGOs)
- Industry associations
- Media
- Residents

Stakeholder dialog

As a leading company in the European cartonboard and folding carton industry, the MM Group maintains a variety of relationships with different stakeholder groups. The dialog with them gives us the opportunity to understand their concerns and expectations, identify potential for improvement, and take appropriate action. Our stakeholder dialog takes place in a number of different ways. We use modern digital means of communication, such as the Internet and intranet platforms, e-newsletters or online surveys, as well as direct personal contact in one-on-one discussions with customers and suppliers and forums of various formats. MM is regularly represented at relevant trade shows and congresses, takes part in competitions and is involved in European (e.g., CEPI, ECMA) and national interest groups (e.g., VDP, Austropapier) on a long-term basis. Employee appraisals are generally held once a year. Shareholders and capital market participants are in regular contact with the Investor Relations department.

Participation of stakeholders in net value added

The Group's value added is the difference between total operating revenue and the products and services provided by third parties. In the statement of distribution, the share of all parties participating in the net value added is shown.

Value added

(in millions of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018	Year ended Dec. 31, 2018
Origin:				
Sales	2,544.4		2,337.7	
Other operating income	11.9		12.7	
Change in finished goods and own work capitalized	(6.6)		4.6	
Financial result and result from investments	(4.1)		0.8	
Total operating revenue	**2,545.6**		**2,355.8**	
(-) Expenditures on purchased goods and services	(1,655.2)		(1,578.0)	
(-) Depreciation and amortization	(134.3)		(107.3)	
Net value added	**756.1**	**100.0 %**	**670.5**	**100.0 %**
Distribution:				
Employees	(288.5)	(38.2 %)	(257.4)	(38.4 %)
Social benefit costs	(142.0)	(18.8 %)	(127.3)	(19.0 %)
Public authorities	(135.4)	(17.9 %)	(121.6)	(18.1 %)
Non-controlling (minority) interests	(0.5)	(0.1 %)	(0.5)	(0.1 %)
Shareholders' dividend (proposed for 2019)	(72.0)	(9.5 %)	(64.0)	(9.5 %)
Company	117.7	15.5 %	99.7	14.9 %

In the financial year 2019, the MM Group generated a total operating revenue of EUR 2,545.6 million, after EUR 2,355.8 million in the previous year. After the deduction of expenditures on purchased goods and services as well as depreciation and amortization totaling EUR 1,789.5 million (2018: EUR 1,685.3 million), the net value added amounts to EUR 756.1 million (2018: EUR 670.5 million).

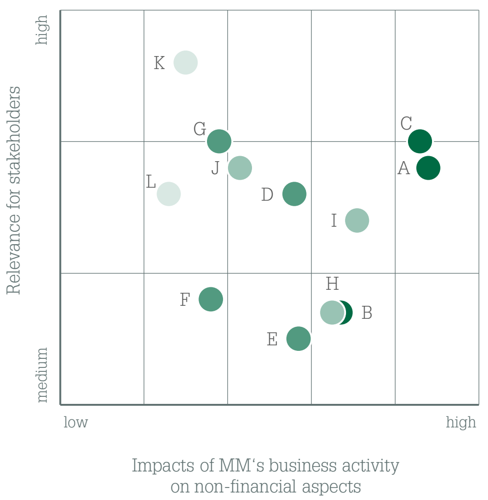
With 38.2 % or EUR 288.5 million (2018: 38.4 %; EUR 257.4 million), the major share of the net value added was again distributed to our employees. A similarly large proportion of 36.7 % or EUR 277.4 million (2018: 37.1 %; EUR 248.9 million) was paid to public authorities and social insurance. The shareholders of the Company are to receive a dividend of EUR 72.0 million or 9.5 % of the net value added (2018: EUR 64.0 million; 9.5 %) for the financial year 2019. A profit of EUR 117.7 million or 15.5 % of the net value added will be retained within the Group (2018: EUR 99.7 million; 14.9 %).

Material topics

The MM Group has developed the material topics listed below in two process steps. In the financial year 2017, the value added chain of MM was analyzed with regard to potential risks for the environment, society, and the economy. The impacts of MM's business activity on these areas were evaluated in terms of their significance. Responsible persons from all relevant specialist areas were involved in this process. As a second dimension of the materiality analysis, the relevance of non-financial matters for MM's various stakeholder groups was prioritized, with internal experts performing the assessment as representatives of these groups. In addition, an industry analysis confirmed the relevance of the identified topics in the general context of sustainability and industry-specific characteristics. At an internal workshop with 14 department managers and technical experts held in 2018, we conducted a more detailed analysis of topics that had been identified as relevant in 2017. This provided us with a better understanding of the impacts on non-financial matters and their potential significance for business development.

The analysis and prioritization were performed separately for the two divisions of the MM Group and were then combined to obtain a weighted result for the Group. A review for 2019 showed no need for changes in the material topics in terms of completeness, topicality and relevance for the business model. When considering the two dimensions - impacts and stakeholder interests - for MM, they can be illustrated as follows:

Materiality matrix



Material and product responsibility
- A Renewable raw materials and recyclability
- B Ecological criteria in procurement
- C Packaging safety

Environmental management
- D Energy consumption and emissions in cartonboard production
- E Transport emissions
- F Water consumption in cartonboard production
- G Waste in production

Employees
- H Employees' education and training
- I Employees' safety and health
- J Socially acceptable working conditions for employees

Society
- K Infringement of regulations and requirements
- L Anti-corruption and anti-competitive behavior

Material and product responsibility

Material topic	Influence and responsibility of MM	Non-financial matters
Renewable raw materials and recyclability	The consumption of renewable raw materials and the production of recyclable products are under the influence of MM. MM assumes responsibility by minimizing the specific use of raw material and maintaining or expanding the recyclability of its products.	Environmental matters
Ecological criteria in procurement	MM assumes responsibility by choosing the means of transport, route planning and using the cargo area.	Environmental matters
Packaging safety	Packaging has a considerable influence on the safety of the packaged goods. MM takes the safety of packaging into account by selecting input factors, processing operations, quality assurance and research.	Social matters

Environmental management

Material topic	Influence and responsibility of MM	Non-financial matters
Energy consumption and emissions in cartonboard production	Industrial cartonboard production is associated with significant energy consumption and emissions. MM assumes responsibility by reducing specific energy consumption and related emissions as well as optimizing energy production and the choice of energy sources.	Environmental matters
Transport emissions	From raw material procurement to distribution, cartonboard packaging is associated with logistics services that cause transport emissions. MM assumes responsibility in particular by choosing the means of transport and logistical planning.	Environmental matters
Water consumption in cartonboard production	Water is an essential operating resource in the cartonboard production process. MM takes this into account by controlling water consumption and water usage.	Environmental matters
Waste in production	Different waste fractions are generated in the production of cartonboard and packaging. MM sets the priorities in waste reduction: prevention before recycling and disposal.	Environmental matters

Employees

Material topic	Influence and responsibility of MM	Non-financial matters
Employees' education and training	The employees of MM are supported to be able to fulfill their professional tasks in the best possible way.	Employee matters
Employees' safety and health	Measures to ensure safety at work and health protection contribute to the health and sustainable performance of employees.	Employee matters
Socially acceptable working conditions for employees	MM ensures socially acceptable working conditions in accordance with the core labor standards of the International Labour Organization (ILO) and the principles of the UN Global Compact. An attractive working environment that promotes employee identification and satisfaction is always important to us.	Employee matters, respect for human rights

Society

Material topic	Influence and responsibility of MM	Non-financial matters
Infringement of regulations and requirements	MM pursues consistent compliance with laws, guidelines and regulations.	Social matters
Anti-corruption and anti-competitive behavior	MM systematically prevents corruption, bribery and anti-competitive behavior.	Fight against corruption and bribery

Alignment with Sustainable Development Goals (SDGs)

MM contributes in particular to the following objectives for sustainable development (Sustainable Development Goals, SDGs). These were adopted by the United Nations (UN) in 2015 and involve the private sector as an important partner in achieving these goals. The selection was made taking into account the value added chain of MM and the company's potential to achieve the greatest positive impact.

The basic prerequisite and starting point for our activities is compliance with all laws, internationally applicable minimum standards and human rights.

Material topic	Targets	Impacts by MM
Renewable raw materials and recyclability	*SDG 12: Responsible Consumption and Production* 12.2 Achieve the sustainable management and efficient use of natural resources 12.5 Reduce waste generation through prevention, reduction, recycling and reuse	Reduce the consumption of natural resources; Use recycled and renewable fibers; Conserve resources through product recyclability
Ecological criteria in procurement	*SDG 8: Decent Work and Economic Growth* 8.4 Improve progressively global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation	Contribute to improving forest management and protecting sustainable habitats and biodiversity
	SDG 15: Life on Land 15.2 Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally	
	15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and protect and prevent the extinction of threatened species	
Packaging safety	*SDG 3: Good Health and Well-being* 3.9 Reduce the number of deaths and illnesses from hazardous chemicals	Ensure and improve product safety; Health protection

Material topic	Targets	Influence by MM
Energy consumption and emissions in production	*SDG 7: Affordable and Clean Energy* 7.3 Double the global rate of improvement in energy efficiency	Increase in energy efficiency, reducing the demand for non-renewable energy sources
Transport emissions	*SDG 13: Climate Action* 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	Reduction in traffic volume and transport emissions
Water consumption in production	*SDG 6: Clean Water and Sanitation* 6.4 Increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater *SDG 12: Responsible Consumption and Production* 12.2 Achieve the sustainable management and efficient use of natural resources	Reduction in water consumption
Waste in production	*SDG 12: Responsible Consumption and Production* 12.4 Achieve the environmentally sound management of chemicals and all wastes throughout their life cycle 12.5 Reduce waste generation through prevention, reduction, recycling and reuse	Reduction in hazardous and non-hazardous waste
Employees' education and training	*SDG 4: Quality Education* 4.4 Increase the number of youth and adults who have relevant skills for employment	Promoting professional and personal qualifications
Employees' safety and health	*SDG 8: Decent Work and Economic Growth* 8.8 Protect labor rights and promote safe and secure working environments for all workers	Reduction in the accident rate; Promote safe and healthy working conditions
Socially acceptable working conditions for employees	*SDG 8: Decent Work and Economic Growth* 8.7 Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of child labor 8.8 Protect labor rights and promote safe and secure working environments for all workers	Safeguarding socially acceptable working conditions
Infringement of regulations and requirements	*SDG 16: Peace, Justice and Strong Institutions* 6.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all	Require and promote behavior that meets compliance requirements
Anti-corruption and anti-competitive behavior	16.5 Reduce corruption and bribery in all their forms	Require and promote behavior that meets compliance requirements

How the sustainability objectives of MM are implemented is explained in the sections on the respective topics.

Sustainability topics

MATERIAL AND PRODUCT RESPONSIBILITY

1 RENEWABLE RAW MATERIALS AND RECYCLABILITY

With cartonboard, MM focuses on a packaging material that particularly satisfies the increasingly important requirement of recyclability in the packaging world and combines clear advantages when compared to other packaging materials with regard to the following parameters for sustainability.

Because cartonboard is

RENEWABLE due to the use of the raw material wood from sustainably managed forests. Certifications for fibers from responsibly managed forests are considered standard in the cartonboard industry.

RECYCLABLE and can thus be reused several times. Used cartonboard packages have the highest recycling rate of all packaging materials in the EU (85 %) and form the basis of the production of an environmentally friendly packaging material – recycled fiber-based cartonboard.

BIODEGRADABLE/COMPOSTABLE. Once released into the environment, paper-based packaging disintegrates within a few weeks.

Besides fibers, chemicals (mainly inorganic pigments, binders, starch and glues) and packaging materials are essential materials in the production and sale of cartonboard. The main materials used in the production of folding cartons are cartonboard, printing inks, varnishes, glue, and finishing materials, such as foils and packaging materials.

a Risks and impacts

Both divisions of the MM Group process a predominant proportion of renewable materials, i.e. fibers. Non-renewable raw materials only play a subordinate role. This is also reflected in the volumes used, which are presented on page 124. While MM Karton, as a leading manufacturer of coated recycled fiber-based cartonboard, processes almost three quarters of recycled fibers in its cartonboard mills, the use of print substrates (cartonboard and paper) made from recycled and virgin fibers is balanced at MM Packaging.

The availability of the raw materials wood and recycled fiber for our production sites is sufficient. Around 60 million tons of paper are collected and reprocessed in Europe every year. MM Karton processes around 1.2 million tons thereof.

Stock preparation, i.e. breaking down individual fibers before supplying them to the cartonboard machine, is possible for recycled fibers with high energy-efficiency. In addition to the energy-saving aspect of the use of recovered paper, other ecological benefits include the protection and conservation of natural resources.

One potential risk consists in the discharge of chemicals in the course of production for both divisions. This risk is minimized by complying with the relevant statutory regulations and by additional specific safety measures, such as chemical storage areas equipped with retention basins, staff training, and meticulously planned incident management.

The main purchasing categories correspond to the materials discussed above, which are primarily obtained from European suppliers.

b — Management approach

The goal of the MM Group is to guarantee a continuous supply of raw materials, ensure minimization and environmental protection in the area of material consumption along with the highest possible recyclability of our products.

Recovered paper is subject to strict quality standards. The different grades are precisely defined in the EN 643 standard. MM Karton obtains its raw materials exclusively from certified sources. The qualities used are subject to strict quality inspections of the quality management system implemented at MM Karton. Our procurement organization has been instructed to ensure the optimum verification of origin and quality as well as the highest level of supply reliability.

Cartonboard mills therefore work continuously on projects aimed at optimizing fiber use. Improvements in extracting recycled fibers are achieved primarily through progress in stock preparation. Technological innovations on machines aim, among other things, at higher effectiveness in fiber use. Constant monitoring ensures optimum use in ongoing operation.

All chemicals used in cartonboard production comply with the 36th Recommendation (Paper and Board for Food Contact) of the Federal Institute for Risk Assessment (Federal Ministry of Food and Agriculture – Federal Republic of Germany) – BfR XXXVI and with the provisions of the REACH Regulation.

In the area of chemicals management, we pursue the goal of minimizing the harmful effects of the use and storage of chemicals to humans and the environment.

At MM Packaging, only low-migration inks and varnishes that comply with all relevant legal regulations are used for food packages. In Europe, these include Regulations (EC) No. 1935/2004 and No. 2023/2006, for example. Furthermore, the inks and varnishes are produced in accordance with the EuPIA Guideline on Printing Inks and comply with Swiss Ordinance 817.023.21. We attach great importance to implementing these high European standards at all sites throughout the Group. Food-contact inks and mineral-oil-free inks conforming to the EuPIA recommendation are also used for other packages and are more environmentally friendly in the recycling cycle and beyond.

The types of glue used for food packages have to fulfill high demands in terms of processability, strength of the adhesive seam, and safety for use with food, and are continuously optimized. We use only adhesives and glues which comply with Regulations (EC) No. 1935/2004 and No. 2023/2006 and which are produced in accordance with the FEICA guidance.

MM Group part of the 4evergreen Alliance

In 2019, the MM Group joined the newly founded 4evergreen Alliance, which was initiated by CEPI, the European paper industry association (http://www.cepi.org/4evergreen). 4evergreen brings together companies from all sections of value added chain 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 environment. Additional aims are to raise awareness for innovations in fiber-based packaging materials and recycling, establish guidelines for product design, and support the development of optimized collection systems, recycling infrastructures and technologies for fiber-based packaging. The 4evergreen Alliance comprises cartonboard and paper manufacturers, packaging producers, brand owners and retailers, technology and material suppliers as well as representatives of the waste collection and recycling industry.

c —— Measures and development

Objective	Developments and measures 2019
Reduce the consumption of natural resources; Use recycled and renewable fibers; Conserve resources through product recyclability	Examine the topic of plastics reduction and substitution with a focus on market and technology, closely involving customers and experts
	MM Karton
	Reduction in the use of cellulose by expanding the in-house production of groundwood pulp
	Increase in recovered fiber quality through improved quality control of the input and optimized fiber preparation
	Optimization of chemical consumption through process modifications, such as coaters
	Reduction in the thickness of plastic film used in transport packaging through new packaging lines
	MM Packaging
	A large number of projects to reduce rejects of cartonboard and paper substrates through process optimization
	Projects to reduce or substitute the use of plastics
	The focus in chemicals management was placed on optimizing consumption and waste.
	For shipping packaging, reduction in packaging material and increased use of pallets made from recycled wood

	MM Karton[1)]	MM Packaging
Renewable raw materials[2)]	1.7 million t	0.9 million t
Fiber use/cartonboard and paper use	1.6 million t	0.8 million t
Recycled fibers[3)]/recycled fiber-based cartonboard	1.2 million t	0.3 million t
Virgin fibers[4)]/virgin fiber-based cartonboard	0.4 million t	0.3 million t
Non-renewable raw materials[2)]	0.2 million t	0.1 million t
Share of renewable raw materials	88 %	91 %

1) excluding MM FollaCell AS
2) including packaging materials
3) excluding rejects
4) groundwood pulp equivalent

2 — ECOLOGICAL CRITERIA IN PROCUREMENT

Ecological criteria in procurement are another important topic for the MM Group in terms of material and product responsibility. The efficient use of resources and a positive contribution to the long-term conservation of natural areas and biodiversity are our main focus. In this context, we attach particular importance to the independent monitoring of raw material procurement and the verifiable compliance of the Company's operations with international environmental and social standards that support long-term sustainable development. In addition, we generally seek to keep delivery distances short in procurement and, if possible, use sources of supply close to our production sites.

a — Risks and impacts

The potential risk of encroachment on local communities and ecosystems, e.g., through illegal logging, is counteracted by chain-of-custody certification according to FSC® and PEFC™ standards for all cartonboard mills.

Risks and opportunities arising in procurement logistics are identified and managed through logistics projects in close coordination with the central logistics manager. The focus of activities is currently on MM Karton and will be further expanded for this division as well as for MM Packaging. This involves the pursuit of multimodal logistics concepts as well as storage concepts (see also topic of transport emissions).

b — Management approach

According to the principle of dealing responsibly with resources and using designated sustainable raw materials in production preserving natural habitats and biodiversity a Chain-of-Custody standard (CoC) is pursued. This is particularly done by establishing geared management systems.

In the MM Group, certifications in the area of Chain-of-Custody exist according to FSC® und PEFC™.

The certification of all seven MM cartonboard mills according to the PEFC™ and FSC® standards (license FSC-C003336) since 2009 has demonstrated that all the virgin fibers used in cartonboard production come from responsibly managed forests and/or from controlled sources and are inspected by independent third parties on a regular basis.

The currently valid FSC® Controlled Wood Standard excludes the purchase from the following sources:

- Illegally harvested wood
- Wood from areas where traditional and basic civil rights are violated
- Wood from forests whose special rights of protection are endangered by forest management
- Wood gained from the transformation of natural forests into plantations or for non-forestry use
- Wood from forests planted with genetically modified tree species

The CoC standard is implemented differently in the divisions of the Group.

Mills of MMK Karton work with a so-called "credit system" which records all purchased virgin fibers and their certification status. There is no physical separation of fibers in the mill itself. They are stored and processed together. The quantity of cartonboard with FSC® or PEFC™ certification that can be sold depends on the volume of certified and creditable fibers purchased.

MM Packaging plants store and process FSC®- and PEFC™-certified cartonboard strictly separately from non-certified cartonboard. Which type of cartonboard is used in folding carton production depends on our customers' wishes and the respective field of application.

In addition, other applicable industry standards, such as ISO 14001, EMAS, and ISO 50001, also address the evaluation of ecological criteria in procurement within the MM Group and go beyond the purchase of fibers, covering all relevant input factors including technical equipment and machinery.

We expect our business partners to always comply with all legal regulations and customary industry standards along the supply chain, and we encourage them to introduce and implement similar principles of responsibility. In MM's terms and conditions of purchase, suppliers are obliged to comply with the MM Group's Code of Conduct.

c — Measures and development

Objective	Developments and measures 2019
Contribute to improving forest management and protecting sustainable habitats and biodiversity	**MM Karton**
	Re-certification of individual mills in accordance with FSC® und PEFC™
	MM Packaging
	Supplier FSC®- und PEFC™ qualification, re-certification of individual mills in accordance with FSC® und PEFC™

	MM Karton[1) 2)]	MM Packaging
Share of fiber use		
- from FSC®-certified sources	17 %	
- from PEFC™- certified sources	36 %	
- from controlled sources[3)]	47 %	
FSC®-certified production sites	7 of 7	39 of 45
PEFC™-certified production sites	7 of 7	33 of 45

1) excluding MM FollaCell AS
2) groundwood pulp equivalent
3) including FSC® Controlled Wood

3 — PRODUCT SAFETY

The safety of food packages is a central topic for the MM Group. This means that, firstly, products of the MM Group are themselves free from any harmful substances and, secondly, outer migration-proof. Accordingly, no transfer takes place from inks and varnishes printed onto cartonboard, nor from any other materials with which cartonboard may come into contact, in quantities that might endanger human health.

a — Risks and impacts

Possible risks of product contamination, a potential hazard for the health of consumers, and possible violations of relevant regulations, legislation, and standards are minimized by applying high quality management standards and carrying out regular internal and external inspections.

b — Management approach

Certifications provide important evidence for customers and consumers of MM Karton and MM Packaging that our products are sustainable, socially acceptable, and do not pose any risk to health. Moreover, they serve as a proof of legal compliance in the area of product safety.

At the same time, regular inspections of MM products to ensure conformity with certification criteria guarantee rigorous quality assurance that is also externally visible.

Certifications in the area of product quality and food safety have been obtained in particular in accordance with:

- ISO 9001
- BRC Packaging
- FSSC 22000 (ISO 22000)
- EN 15593
- ECMA GMP

The respective certifications of individual MM locations can be found in detail on our divisional websites at http://www.mm-karton.com/en/company/mills and http://www.mm-packaging.com/en/locations.

ISO 9001

The Mayr-Melnhof Group has been certified according to the ISO 9001 quality management system for a long time. It currently covers all production sites of both divisions.

In addition to the internal benefits of a quality management system, such as efficient workflows and processes, defined implementation rules, and, above all, continuous further development, customer satisfaction is our highest priority. Our primary goal is to guarantee our customers consistent product quality and application-oriented product solutions while ensuring maximum security of supply.

BRC Packaging and FSSC 22000

The British Retail Consortium (BRC) Packaging standard is a global standard for packages and packaging materials that focuses on monitoring food hygiene and product safety. This standard, along with the global FSSC 22000 standard for food safety management systems (food safety system certification), which also covers the requirements of ISO 22000, are hygiene management systems recognized by the Global Food Safety Initiative (GFSI). With their certification according to BRC Packaging and FSSC 22000, our sites prove their competence in the areas of risk management, hygiene, product safety, and quality systems, and thus comply with our customers' requirements regarding food safety.

Certified hygiene management in accordance with EN 15593

The requirements of certified hygiene management in accordance with EN 15593 apply in particular to cartonboard packaging products used in the fields of food and pharmaceuticals. In this connection, it is important to meet the high demands placed on the hygienic cleanliness of products and thus on production itself. Visible proof of compliance is the certification of our relevant sites according to the EN 15593 hygiene management system standard. It covers sensitive and important parameters, such as personal hygiene, foreign-object and glass checking, cleaning cycles, pest management, and microbiology. All MM cartonboard production sites and around 60 % of MM's packaging plants are certified according to one or more of these international hygiene management standards.

ECMA GMP

Supplying customers and consumers with safe food packages made from cartonboard is a priority in the folding carton industry. The ECMA GMP guideline was developed as an initiative of the European Carton Makers Association (ECMA). All European packaging sites comply with the requirements of this guideline.

c —— Measures and development

Objective	Developments and measures 2019
Ensure and improve product safety; Health protection	Regular internal and external analysis of state-of-the-art cartonboard products and continuous evaluation of compliance with relevant rules and regulations
	Staff training in product safety and food contact
	MM Karton
	Preparation for ISO 22000 certification for food safety management systems
	Product innovations and developments, e.g., barrier cartonboard products, use of a fluorine-free barrier
	EN 15593 certification (hygiene management in the production of food packaging), ISEGA (hygiene management)
	MM Packaging
	Improvements of existing food safety certifications (BRC, FSSC 22000, ECMA GMP, ISO 22000) and the fulfillment of special customer requirements
	Optimization of legal compliance monitoring

	MM Karton	MM Packaging
Share of cartonboard types for which the impact on consumer health and safety is assessed	100 %	
ISO 9001-certified production sites[1)]	7 of 7	45 of 45
Production sites certified in the areas of food safety and hygiene[1)]	7 of 7	27 of 45

[1)] excluding MM FollaCell AS

ENVIRONMENTAL MANAGEMENT

1 — ENERGY CONSUMPTION AND EMISSIONS IN PRODUCTION

Important environmental impacts from the business operation of the MM Group arise from the high energy consumption within the cartonboard production and related emissions. By contrast, the energy demand of the packaging division is significantly lower.

Natural gas is predominantly used as the primary energy source in MMK mills. Each mill has its own power station in which natural gas is used to generate steam for the demands of cartonboard production and to produce electricity from the generated high-pressure steam via a turbine. In addition, electricity is also purchased from energy supply companies. Other fossil energy sources in the individual mills include light heating oil, diesel, and liquefied gas.

The production of MM Karton, which is already highly energy efficient today, is increasingly supplied with power from renewable energy sources, such as biomass, biogas and hydroelectric power.

Resource-efficient operations not only pay off for us but also for our environment.

a — Risks and impacts

Exhaust air emissions that result from cartonboard production are mainly caused in energy production by burning natural gas. Emissions of CO_2, NO_x, and CO are constantly monitored and observed according to legal provisions. In contrast, direct exhaust air produced by cartonboard machines consists primarily of steam. MM Karton constantly undertakes new measures to further reduce exhaust air emissions in line with the latest technological standards.

Energy use at MM Packaging is far lower than at MM Karton, accounting for less than 10 % of Group-wide energy consumption. Nevertheless, programs aimed at raising the energy efficiency especially of machinery and lighting are also implemented in the packaging division. Waste heat from the machinery pool is used in several plants to pre-heat other premises, for example.

b — Management approach

Responsible management of energy consumption and associated emissions has a high priority. Throughout the Group, attention is paid to integrating the best possible standards and consistently upgrading existing plants.

Existing environmental management systems within the MM Group have been set up in such a way that changing requirements can be incorporated and adapted easily and as quickly as possible. Currently, environmental and energy management systems are in place at six production sites of MM Karton and at 30 sites of MM Packaging. The intention is to further increase the degree of penetration within the Group.

Every year, environmental objectives are defined at all concerned levels and for each relevant area at the locations with environmental management systems. In order to achieve these objectives, a program is initiated containing the aspired objectives, specific measures, the people responsible for accomplishment, a time frame, and the funds required for the achievement. The environmental officer reports to the management on environmental performance and further planned measures as part of the management review.

Internal and external audits (especially in connection with certifications and re-certifications) and an appraisal by the management based on the management review are performed in order to guarantee those environmental standards already achieved, to satisfy new requirements, and to monitor the effectiveness of the environmental management system.

The aim of energy management consists in sustainably reducing the energy consumption of our factories, raising efficiency and obtaining an ever increasing share of the required energy from renewable sources. Certifications are also of great importance for our energy management and help us to identify Group-wide energy-saving potentials.

Certifications regarding environment and energy management are in particular based on the following standards:

- ISO 14001
- EMAS
- ISO 50001

ISO 14001

The systematic incorporation of environmental protection into management considerations was already established more than two decades ago with the certification of the cartonboard mill in Frohnleiten according to ISO 14001, the globally applicable standard for environmental management systems. Regular internal and external audits safeguard the high level achieved and support us in meeting new requirements.

EMAS

The cartonboard sites in Frohnleiten and Hirschwang participated voluntarily in the EC's ecological auditing regulation already in 1996. The "Eco-Management and Audit Scheme" (EMAS) is a common system for environmental management and environmental auditing. Participation supports the information policy of the Mayr-Melnhof Group in presenting its corporate culture characterized by responsible action. Together with the ISO 14001 certification, EMAS forms the basis of the continuous safeguarding of an integrated environmental management system at MM. Today, the sites at Frohnleiten, Hirschwang, Eerbeek, and the fiber mill FollaCell are certified according to ISO 14001, with Frohnleiten and Hirschwang additionally being certified according to EMAS. The cartonboard mills that are not directly certified have internal environmental protection systems for continuous improvement and use synergies with the certified sites. 30 locations in the packaging division are certified according to ISO 14001 and/or EMAS.

ISO 50001

The MM Group is constantly making efforts to increase energy efficiency and reduce specific costs. For this reason, production facilities – especially in the energy-intensive cartonboard division – are increasingly aligned with the provisions of ISO 50001. Four sites in the cartonboard division and six packaging sites are currently certified according to this standard.

Energy management is consistently continued and optimized on the basis of sustainable monitoring and has already resulted in a significant reduction in energy costs, greenhouse gas emissions, and other emissions in the past. The success of projects implemented in this context is the starting point of new optimization initiatives.

Greenhouse gas emissions (CO_2 certificates)

The EU Emissions Trading Scheme (EU ETS) is the centered European climate protection instrument for reducing greenhouse gas emissions in the EU and a number of non-EU countries, such as Norway. It includes the energy industry as well as selected energy-intensive industrial sectors, such as the paper and cartonboard industry, hence also the seven MM cartonboard mills within the EU and the FollaCell fiber mill. The scheme is based on the "cap & trade" principle according to which an upper limit on permitted emissions is set in order to issue a limited number of emission allowances (CO_2 certificates). These can be freely traded on the market if required. The allocation of free CO_2 certificates is without charge under certain conditions in order to avoid "carbon leakage", i.e. the transfer of emissions to countries with less stringent climate protection regulations. A benchmark procedure is used to ensure that selected sectors subject to international competition receive some of their certificates free of charge. The free allocation is based on benchmarks that reward the most efficient facilities in every sector. As the EU's political goal is to further reduce CO_2 emissions, free allocations are also gradually decreasing, creating incentives for reducing emissions and adopting energy-efficient technologies.

In the third ETS allocation period (2013 – 2020), the seven MM Karton mills and the FollaCell fiber mill also benefit from a largely free allocation of CO_2 certificates thanks to good benchmarking results. Accordingly, sufficient CO_2 certificates are available for the sites until the end of 2020. The allocation process for the fourth ETS allocation period (2021 – 2030) will, however, be subject to an EU review. Based on what we know at present, free certificates will again be allocated on the basis of a benchmark procedure. The benchmarks and the relevant implementing legislation are currently being revised by the EU Commission. The implementing legislation is expected to be adopted by mid-2020.

With the European Climate Protection Regulation (EU) 2018/842, the states have now also adopted a greenhouse gas reduction target in certain non-ETS sectors; these are sectors that are not covered by the EU emissions trading system. A key measure in Germany is the introduction of a national emissions trading system (nETS) for non-ETS sectors, such as heating and transport. The draft legislation provides for a CO_2 tax to be levied on the distributors of fuels and combustibles as of 2021. All companies using fossil fuels will be indirectly affected by these costs being passed on, irrespective of their participation in the EU ETS scheme. Although there is a plan for EU ETS sites (MM Karton) to be relieved from the national CO_2 pricing, there is currently no practicable solution. MM Karton could now be subjected to a double burden or at least would have to pay up front. Operators of production sites not covered by the EU ETS scheme (MM Packaging) will face an additional cost factor due to CO_2 pricing. A similar system has already been discussed in Austria.

c —— Measures and development

Objective	Developments and measures 2019
Increase in energy efficiency; Reducing the resource demand	**MM Karton**
	Comprehensive energy-saving programs launched for all mills as part of a new initiative, with subsequent potential for CO_2 reductions. The projects cover all areas of cartonboard production.
	Increased use of biogas from water treatment, increased use of biomass for heating
	Optimization of energy generation, improvements in heat recovery continued
	MM Packaging
	The conversion to LED lighting was continued systematically.
	Investments in heat recovery and renewable energy forms, such as solar panels Energy efficiency was enhanced at several production sites by modifying existing equipment.
	Measures taken to improve air-conditioning systems and thermal insulation

	MM Karton	MM Packaging
ISO 14001- or EMAS-certified production sites[1]	3 of 7	30 of 45
ISO 50001-certified production sites[1]	4 of 7	6 of 45
Energy consumption[2]	3.3 TWh	0.4 TWh
Specific energy consumption[3]	1.8 MWh/t	0.5 MWh/t
Direct CO_2 emissions[2] [4]	0.5 million t CO_2e	0.03 million t CO_2e
Specific direct CO_2 emissions[4]	0.3 t CO_2e/t	0.04 t CO_2e/t

1) excluding MM FollaCell AS
2) including MM FollaCell AS
3) based on net production or tonnage processed
4) at MM Karton: emissions reported according to Section 9 of the Emissions Certificates Act 2011

2 — TRANSPORT EMISSIONS

In addition to direct emissions from production, greenhouse gas emissions resulting from upstream and downstream transport are another, albeit less significant, component that contributes to Mayr-Melnhof's ecological footprint. As our production sites do not have their own vehicle fleet, reference is made here to external transport services, e. g., freight forwarders. Transport emissions resulting from Mayr-Melnhof's business activities are consequently not to be attributed to direct but to indirect emissions.

a — Risks and impacts

Cartonboard and cartonboard packaging are voluminous bulk goods that require considerable transport services both in the procurement flows of the raw materials and in the shipment of the finished products. The MM Group transports approximately six million tons of raw materials and finished products each year.

The resulting transport emissions are determined in part by the ton-kilometers covered which are caused by long delivery distances on both, the procurement and the sales side. Furthermore, the choice of transport means and their specific characteristics are also responsible for the volume of greenhouse gases emitted. The selected means of transport depends primarily on available transport options between the participants in the value added chain and is usually predetermined by the relevant connections between the shipping parties. Transport by rail and ship is subject to many restrictions inherent to the system. Even though rail is considered the most ecological means of transport, Mayr-Melnhof mainly uses trucks and multimodal logistics concepts due to a lack of rail infrastructure. While two of MM Karton's mills have direct rail connections, this is only the case at one MM Packaging production site. Transport is therefore only possible by truck at many sites, especially at the smaller folding carton production sites, as well as for most customers and suppliers.

In times of smaller batch sizes as well as short-notice call-offs and acceptance time windows, the logistical challenges, and hence also those relating to transport emissions, are increasing significantly.

On the whole, emissions resulting from transport are of lesser importance compared to the emissions released during the production process. CO_2 emissions caused by transportation to MMK customers are less than one fifth of direct CO_2 emissions caused by cartonboard production.

b — Management approach

Optimizing traffic volumes, logistics and transport emissions is of great relevance to the MM Group, both, in economic and ecological terms, and is therefore a priority. Besides cost minimization, the concept of sustainability therefore also plays a key role in logistics projects, with a central logistics manager in the cartonboard division assuming responsibility for strategic coordination.

In procurement, care is generally taken to keep delivery distances short and, if possible, to use sources of supply close to our production sites. Across the Group, Mayr-Melnhof can purchase more than half of the raw materials it uses from local suppliers, with an even higher share in the cartonboard division. The broad geographical spread of the packaging sites in turn contributes significantly to minimizing ton-kilometers and transport emissions on the sales side.

Throughout the MM Group, high priority is attached to making optimum use of transport space, as this has both, ecological and economic benefits. Ideal transport and storage facilities play an important role already in course of the product design of packaging solutions.

Mayr-Melnhof attaches great importance to prioritizing rail as the most ecological means of transport in logistics planning. The largest MM Karton mill in Frohnleiten, which has a direct rail connection, now ships more than 60 % of its finished goods directly by rail. The share of rail transportation at the Kolicevo cartonboard mill is somewhat lower due to the lack of rail infrastructure at customers. At the Vienna packaging site, the share of rail in shipments exceeds one third. Fiber producer FollaCell handles almost all transport by sea due to its geographical location.

Despite the fact that only a few MM production sites and their suppliers and customers have direct rail connections or access to a port, the MM Group makes use of the ecological advantages of rail and ship. Both divisions are pursuing interesting approaches in connection with multimodal logistics concepts. Depending on the route and available connections, low-emission intermodal transport is part of daily business, bringing substantial CO_2 savings compared to conventional road transport alone. In combination with the integration of external interim storage facilities, rail is used as an integral part of the transport chain throughout Europe, while ships are used for overseas deliveries. Intermodal transport thus makes it possible to limit the need for road transport to the "last mile".

c — Measures and development

Objective	Developments and measures 2019
Reduction in traffic volume and transport emissions	Development and implementation of multimodal logistics concepts, transport space optimization
	MM Karton
	Mills optimize transport services, in particular through improvements in the use of truck capacities, reduction of big bag shipments on trucks for chemicals by switching to suspension deliveries, efficiency increases in internal logistics and an optional increase in rail transport.
	MM Packaging
	Improved truck utilization, optimization of internal transport, increase of rail transport wherever possible

Indirect CO_2 emissions[1)] from shipments to MMK customers	0.1 million t

[1)] including MM FollaCell AS

3 — WATER CONSUMPTION IN PRODUCTION

Water is an essential operating resource in the cartonboard production process. By contrast, almost no water is needed for production in cartonboard processing. As a result, there are higher waste water volumes in the cartonboard division than in the packaging division.

a — Risks and impacts

Water is used in large quantities during cartonboard manufacturing over the entire course of production – from stock preparation of recovered paper through processing fibers to being used as a coolant and for the production of steam in power generation.

In this connection, it is important to clearly differentiate between water use and water consumption. One part of the water is only used temporarily in production (e.g., as cooling water) before being treated and returned. The risk of water shortage in dry regions due to production is therefore low. Only a small part of the water used is not actually returned, but remains either in the product as residual moisture or evaporates. A residual moisture content in cartonboard is mandatory for further processing.

b — Management approach

MM Karton's aim is a sustainable reduction in the use of water by continuously optimizing production processes and products. Specific water consumption is kept very low and is further reduced through recirculation switching and increases in efficiency.

At MM Karton, the extracted ground and surface water is generally used a number of times, first as cooling water and then as process water in several stages. Excessive water is initially cleaned mechanically and then treated in a multi-step biological wastewater purification process before being discharged again – overuse or contamination do not take place.

The water used repeatedly in the production process is cleaned and treated in state-of-the-art wastewater purification plants before it leaves the mills.

Wastewater volumes are continuously recorded and evaluated by specifically trained Company-internal staff and by regular external inspections. Compliance with the relevant statutory regulations is verified by the respective national or regional authorities.

For information regarding certifications in environmental management, please refer to page 105.

c — Measures and development

Objective	Developments and measures 2019
Reduction in water consumption	**MM Karton**
	Technological modernization and expansion of industrial wastewater treatment plants for future requirements, introduction of group-wide benchmarking for water treatment
	MM Packaging
	Projects to reduce fresh water consumption and corresponding training
	Increased focus on differentiation between process and non-process water
	Rainwater for fire-extinguishing tanks

	MM Karton[1)]	MM Packaging
Water consumption	21 million m^3	0.7 million m^3

[1)] including MM FollaCell AS

4 — WASTE IN PRODUCTION

Reducing waste in the production and optimizing the use of materials are of central importance within the MM Group to maintain cost leadership and make an important contribution to the conservation of resources. Projects with this focus relate in particular to measures to further reduce waste and improvements in separation and recycling.

a — Risks and impacts

The largest share of waste at MM Karton in terms of volume in recycling mills is the residual waste from the processing of recovered paper, the so-called reject. Together with the sludge and household-waste-like commercial waste, they are either used in a thermal recovery process within the mills or handed over to authorized disposal firms. Hazardous waste, such as used oil, chemicals, contaminated liquids, wastewater contaminated by chemicals, workshop waste, and batteries, are handed over to licensed waste disposal companies for disposal in compliance with statutory regulations.

At MM Packaging, the largest share of waste in folding carton production is also by far represented by non-hazardous materials that are introduced into the recycling cycle. The most important category of waste by volume is cartonboard scrap from the die cutting process. It is largely reused within the MM Group or in other companies and processed into new cartonboard.

Solvent, ink and varnish residues, used oils, humidifying water, and wastewater from the printing machines are regarded as hazardous waste that makes up only a small fraction of the total waste volume and which is handed over to authorized waste disposal firms in compliance with statutory regulations.

After use, products of the MM Group are generally disposed of by end customers or consumers. The environmental impacts of the packaging waste caused by this are low, as the materials used are environmentally friendly (recyclable and compostable cartonboard, mineral-oil-free inks). Furthermore, the waste volume and its associated impact on the environment are reduced by MM's business model – reuse of recovered paper.

b —— Management approach

The MM Group's waste management focuses on the principle "prevention before recycling before disposal". Waste management at our sites is implemented by the respective waste management officer. Waste disposal itself is performed by authorized waste collectors, recyclers, and disposal firms in accordance with the respective statutory provisions, depending on the type of waste. We aim at combining economic and ecological benefits, in particular by constantly minimizing the amount of residual materials and recycling.

For information regarding certifications in environmental management, please refer to page 105.

c —— Measures and development

Objective	Developments and measures 2019
Reduction in hazardous and non-hazardous waste	**MM Karton**
	Improvements in fiber recovery, process changes, and optimization of fiber supply sources
	Investment in thermal utilization of wood residues in Kolicevo
	MM Packaging
	Improvements in the production process based on new technology
	Optimization of separate collection
	Minimization of hazardous waste (e.g., solvent and paint residues) through avoidance or substitution

	MM Karton[1]	MM Packaging
Non-hazardous waste	0.2 million t	0.1 million t
Hazardous waste	1 thous. t	3 thous. t

[1] including MM FollaCell AS

EMPLOYEES

1 — EMPLOYEE EDUCATION AND TRAINING

At the end of 2019, the Mayr-Melnhof Group employed a total of 10,014 people in 27 countries. They form the basis of the Company's development and success. We therefore take great care to ensure that people enjoy working at MM and that qualified specialists and managers are available to the Group on a sustainable basis. We thereby place particular emphasis on long-term development opportunities, motivation through assuming responsibility, and the offer to work for an attractive employer with a dynamic, flat organization.

A central element in personnel development of MM is to ensure general conditions in which employees at all levels can fully develop their abilities over the long term and, with growing skills, take on more responsible tasks. We actively promote career paths and international deployment within the Group in order to retain knowledge and talents within the Group over the long term and enable our employees to grow together with MM.

For this purpose, numerous programs have been firmly established within the Group. They systematically accompany employees along their career paths in the Mayr-Melnhof Group. When defining programs, particular emphasis is placed on designing them to offer challenging tasks and contents and provide an active contribution to the Company.

a — Risks and impacts

The MM Group encourages the development of professional and personal qualification of the employees through numerous education and training programs and thus actively contributes to increasing and ensuring their employability. In the competition for skilled workers, targeted employer branding is aimed at keeping the attractiveness of MM as an employer high.

b — Management approach

The main tasks of our Human Resources Management are recruiting for key positions, employee development, education and training as well as the systematic management of knowledge within the Group. The "Corporate Human Resources" function manages the program centrally, while its implementation is organized locally at the individual sites. Individual components of the program are continuously evaluated and adjusted to current requirements in terms of content, methods, and technology (e. g., digitalization).

Active personnel marketing

Already prior to an employment, we offer various opportunities to get to know the Group and get in touch with us. For example, we take advantage of the continuous collaboration with schools, universities, and colleges as well as our regular participation in career fairs to position the Mayr-Melnhof Group as an attractive employer and to get into contact with young people at an early stage.

Systematic support from the start

With the “Young Professionals” program, we offer ambitious young job starters at the beginning of their careers a holistic, inter-company course of training going far beyond a conventional apprenticeship. After a careful selection process, we encourage our junior staff to acquire high professional skills and to develop their personality-related soft skills as well as foreign language skills in order to prove themselves in an international environment. “The apprentice as an opportunity for our Company and our Company as an opportunity for the apprentice” is the guiding principle. MM bears the Austrian quality seal “Top Company for Apprenticeships” and was awarded as “Great Place to Start” by Great Place to Work®.

A few years after completion of an apprenticeship, the "Young Professionals ++" program with the support of mentors leads to the targeted transfer of technical and managerial responsibility.

In the "Ranger" program, we prepare "High Potentials" for future key positions and assign each of them responsible tasks from the very beginning. The development plan involves three different areas of responsibility at three different locations over the course of three years. We accompany “Rangers” on their paths to future management functions by providing exchange with experienced managers and specific opportunities for training and gaining experience. Special professional qualification, high motivation, language skills, and international mobility are fundamental requirements for participating in the program. In addition to their individual tasks, “Rangers” work together on a project of topical relevance within the Group every year.

The “Explorer” program offers young university graduates with a few years of professional experience attractive career paths in Key Account Management, Controlling, or Engineering with a focus on production and automation. We support “Explorers” in an exciting ongoing activity by means of personal mentoring and technical upskilling.

MM-Academy – Fit for the Future

The “MM-Academy” is the central institution for education and advanced training for our employees at all levels within the MM Group. The main focus is placed on teaching specialist knowledge and language skills and further development of social and managerial skills as well as the “MM Apprentice Academy”. The key criterion for every training is the creation of added value for our Company. In our “Leadership Journey”, we teach employees in managerial positions the latest management tools and promote an international exchange in accordance with our corporate values: performance, responsibility, and passion. In the “MM-Academy”, employees are trained in both, class-based and online training courses, with e-learning offers being on the increase.

“Methusalems” program

We tie the long-standing experience and expert knowledge of senior employees to the Company in the “Methusalems” program within selected projects. The aim is to successfully combine time-proven practice with innovation and to fundamentally safeguard complex projects. The exchange of ideas between young and old is a highly appreciated, regular element of our personnel development programs.

c —— Measures and development

Objective	Developments and measures 2019
Promoting professional and personal qualification	In 2019, we trained and developed the skills of around 1,400 participants in the "MM-Academy" for specific positions. The e-learning portfolio (e.g., personal qualification, foreign languages, compliance) was further expanded. Courses are even more specifically tailored to the particular tasks/functions and subject areas (health/safety, food safety, software/hardware introduction) in the Company.
MM as an attractive employer and workplace	*New "Fast Mover" program* The " Fast Mover" program was set up to meet the challenges of the shortage of skilled workers on the labor market with the primary goal of strengthening our position in the production sector and attracting, developing and retaining the best people for our Company over the long term. The program works with custom training plans and position-dependent competence profiles and rounds off the training and development opportunities within the Group.
	Reverse mentoring – growth that unites generations Technological change such as digitalization and automation is increasingly becoming part of our daily business and calls for open access for all employees. We generally understand mentoring to be the transfer of knowledge and experience from old to young. Under "reverse mentoring", young employees who have grown up as "digital natives" help the more experienced older generation to accelerate the acquisition of knowledge in the field of technology.

	MM Group
MM-Academy courses	149
Participants in MM-Academy courses	1,447
MM-Academy training hours	12,494

2 — EMPLOYEE SAFETY AND HEALTH

Employee safety is our corporate responsibility, but it is also an important factor for our business conduct, since accidents and lost working hours also generate costs. Promoting occupational safety and employee health is therefore also an important contribution to the operational efficiency and competitiveness of the Company. Safety has a particularly high priority in view of the fact that we are a manufacturing company.

a — Risks and impacts

Despite accident prevention and health promotion measures, risks arise from work-related stress. A possible adverse effect arises from working in shift operations and with chemicals. In addition, psychological stress may have an impact on employees and, as a consequence, the health care system. The risk is minimized through active measures aimed at promoting the health of our employees.

b — Management approach

Preserving the health and vitality of our employees at a high level throughout their entire working lives is a major concern of MM and the objective of our health management. Prevention and screenings are given the highest priority. In our company's health service, we rely on a wide range of measures, especially on continuous care provided by company doctors, constant health and occupational safety training courses and preventive check-ups.

The management of health and safety at work is the responsibility of the respective general manager and their safety officers at the production sites, as they best know the needs within their facilities and how to comply with country-specific regulations.

The successful implementation of occupational health and safety management systems is confirmed by OHSAS 18001 or ISO 45001 certifications for 16 production sites.

Individual safety and health standards in the workplace are observed. Continuous measures, such as a regular evaluation and training courses, are geared to continuously improving health and safety in the workplace.

Our goals in the area of occupational safety include a continued reduction in the rate of accidents, the promotion of safety awareness through continuous training courses and regular information of our employees. The management follows the guiding principle that all employees leave their workplace in a healthy condition.

c —— Measures and development

Objective	Developments and measures 2019
Reduction in the accident rate; Promote safe and healthy working conditions	Safety and health management focused in particular on preventive measures in the workplace (safe job analysis), improvements in the working environment, and the optimization of occupational safety.
	Safety and health training was mainly provided on the job.
	The main focus of training was on optimizing first aid procedures as well as accident and sickness prevention.

	MM Group
ISO 45001- and OHSAS 18001-certified production sites[1)]	16 of 52
Occupational accidents resulting in death	0

[1)] including MM FollaCell AS

3 —— WORKING CONDITIONS/ENVIRONMENT

Our goal is to guarantee general conditions in the MM Group in which our employees can contribute to the Company's success over the long term. At the end of 2019, 10,014 people were employed in the Mayr-Melnhof Group, around 87 % of which were located in Europe and 13 % in the Americas, the Middle East, and Asia. Their cultural diversity and differing ranges of experience are an enrichment for our international business activities. By supporting diversity and equal opportunities, we promote innovation capability and creativity as well as our competitiveness in an increasingly global context.

The MM Group is aware of the importance of human rights from a value-based as well as from an economic perspective and fully commits itself to respecting and upholding human rights and to actively preventing human rights violations.

Employees of the Group

	Dec. 31, 2019		Dec. 31, 2018	
Western Europe (excl. Austria)	4,299	42.9 %	4,326	45.8 %
Austria	1,846	18.4 %	1,498	15.9 %
Eastern Europe (incl. Turkey)	2,569	25.7 %	2,645	28.0 %
Asia and MENA	812	8.1 %	509	5.4 %
The Americas	488	4.9 %	467	4.9 %
Total	**10,014**	**100.0 %**	**9,445**	**100.0 %**

a — Risks and impacts

Although a major part of MM Group's sites are located in European countries, the Company may be exposed to risks regarding human rights, especially in countries outside Europe where MM operates. In some of these countries, there is, for example, a risk of forced labor, child labor, and the violation of labor standards and equal opportunities. In our industry, the risks are deemed to be low, however.

A potential risk for our employees arises in connection with shift work in production operations, which may result in health restrictions (see chapter on employee safety and health).

b — Management approach

We observe the applicable regulations concerning working time in all Group companies. We acknowledge the entitlement of our employees to appropriate remuneration, and we comply with the statutory provisions of the relevant countries. The respective site manager is responsible for this.

As in most industrial companies, production operations in the MM Group run in shifts. This means that appropriate statutory compensation measures are offered to the employees.

A high level of personal identification with the success of the Company is firmly rooted within our corporate culture. For this reason, performance-related forms of remuneration have had a long tradition throughout the Group to ensure that high-performing individuals are able to get their share of the Company's success.

We respect our employees' right of freedom of association. We strive for a long-term constructive dialog with the employees' representatives, both, at a local level and in regional federations of companies.

The MM Group undertakes to comply with human rights within its sphere of influence and rejects any form of forced labor in its organization and among its business partners. The risks of human rights violations are limited through the application of the Code of Conduct and regular external audits.

We also reject child labor, irrespective of local legislation, throughout our Company and in the companies of our business partners. Throughout the Group we are guided by the international standards (ILO Conventions C 138 and C 182) and keep records that show that all members of our workforce are of the minimum age required by law.

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. In addition, there are performance- and contribution-based severance obligations and obligations as part of statutory pre-retirement schemes at individual locations.

The Code of Conduct covers the fundamental needs of our employees. This standard applies to all employees of the MM Group. The MM Code of Conduct reflects our basic principles with regard to complying with laws, child labor, human rights, working hours and remuneration, health and safety, drugs and alcohol, and the development of employees. Local management is responsible for ensuring compliance with the CoC.

Ongoing communication (e.g., via Intranet, Internet, folders) and training courses provide information about the working environment in the Mayr-Melnhof Group.

c — Measures and development

Objective	Developments and measures 2019
Safeguarding socially acceptable working conditions	Workshops dealt, for example, with working time regulations and mobbing prevention. An open door: presentation of the Company for schools

	MM Group
Cases of child labor	0
Cases of forced labor	0
Production countries with Fundamental Rights Index ≤ 0.4 (Rule of Law)	3 of 21

SOCIETY

COMPLIANCE

MM aims at a sustainable increase in the value of the Company through responsible business activities in compliance with all legal regulations, industry standards and the universal principles of the UN Global Compact in the areas of human rights, labor standards, environmental protection and the fight against corruption. In this context, "compliance with laws, standards, codes of conduct" and "the fight against corruption, anti-trust compliance" have been identified as key issues for the MM Group and its contribution to society.

1 —— COMPLIANCE WITH LAWS, STANDARDS AND RULES OF CONDUCT

The MM Karton division generates 87 % of its sales in Europe and 13 % in countries outside Europe. Cartonboard mills are located in Germany, Austria, the Netherlands, and Slovenia. The MM Packaging division has 45 production sites in 18 countries on three continents. 82 % of sales are generated in European countries. MMP's production outside Europe takes place in China, the Philippines, Canada, Columbia, Chile, Vietnam, Jordan, and Iran.

We comply with all the relevant laws and regulations of the countries we operate in and observe their social standards. Some of the important regulations, guidelines, standards, and certifications relating to sustainability are partly cited in previous sections.

a —— Risks and impacts

Potential risks resulting from the MM Group's business activities are possible non-compliance with standards, laws, rules of conduct and, possibly, voluntary declarations of commitment and human rights violations. The risk of human rights violations is classified as very low in European countries, owing to statutory frameworks.

b —— Management approach

Compliance comprises all those actions and measures aimed at observing laws, codes of conduct, and other standards and is a key task of the Management Board in the Mayr-Melnhof Group.

The compliance risk arising from a potential failure to adhere to standards, laws, rules of conduct and, possibly, voluntary declarations of commitment is assessed, in particular, through regular compliance monitoring in the individual organizational units (sites, divisions, central Group functions), the principle of dual control and guidelines (such as the Code of Conduct). Furthermore, we have appointed a Compliance Officer who is responsible for compliance training as well as internal and external reporting.

We deal with the risk area of "Legal Compliance" which covers all actions and measures geared towards ensuring compliance with legal regulations and contractual provisions through the position of a Legal Manager, the use of a central legal compliance system, and, where necessary, by consulting external experts.

c — Measures and development

Objective	Developments and measures 2019
Require and promote behavior that meets compliance requirements	Mandatory compliance with the MM Code of Conduct by suppliers through new terms and conditions of purchase An internal information campaign was conducted at the beginning of 2019 to ensure consistent compliance with the Code of Conduct within the Group

	MM Group
No significant fines or sanctions for non-compliance with legislation and regulations in the social and business field	✓

2 — ANTI-CORRUPTION, ANTI-TRUST COMPLIANCE

We always act in the best interest of the Mayr-Melnhof Group and strictly separate the interests of the Company from private interests. We aim at avoiding even the mere appearance of a conflict of interests. We take decisions based on reasonable economic aspects in line with laws and standards. In our business relations, we always act properly in line with the respective regulations against corruption, bribery, fraud, and money laundering. We undertake not to accept gifts or financial benefits and not to enter into any participation that might result in a conflict of interests. Furthermore, no bribes or any other form of unlawful payments or benefits may be accepted, offered, or paid.

We fully commit ourselves to fair competition with our competitors, business partners, and other market participants. At the same time, we undertake to comply with the laws on the restriction of competition that apply in the countries where the Mayr-Melnhof Group does business.

a — Risks and impacts

Potential risks resulting from the MM Group's business activities are cases of corruption and anti-competitive behavior. The risk of corruption is classified as very low in European countries due to statutory provisions. We also assume that the business operations of the MM Group are not the target of fraudulent actions, especially as the products manufactured are of low fungibility.

b —— Management approach

Protection against active fraud is provided for, in particular, by organizational structures and the application in procurement, production and payment systems. The Management Board is, for example, obliged to report on the fight against corruption to the Supervisory Board once a year.

Accepting gifts, granting benefits (according to the Code of Conduct)
Employees of the Mayr-Melnhof Group may not demand, accept, offer, or grant any direct or indirect unwarranted benefits in the course of their business activities. The sole exceptions are generally customary hospitality and occasional benefits of a verifiably low value. A strict standard must be generally applied in judging this. In any case of doubt, the Compliance Officer must be consulted, who will then issue a corresponding recommendation.

Guideline: relationship with competitors, customers, associations (according to the Code of Conduct)
Agreements with competitors and coordinated practices that aim at or result in a restriction or prevention of competition are prohibited. As a principle, great care must be taken in dealing with competitors to ensure that no information that allows for any conclusions on current or future market behavior to be drawn is passed on, received, or exchanged.

Guideline: Anti-trust law
The Group's rejection of cartel violations is expressed in an anti-trust compliance guideline that describes appropriate conduct in dealing with competitors. No employee of the Mayr-Melnhof Group may in any way restrict customers in the free arrangement of their supply relationships and pricing. Collaboration in associations and participation in their events only take place for legitimate reasons. Any arrangement with competitors or any exchange of information is in strict accordance with the applicable legislation.

Should employees of the Mayr-Melnhof Group find themselves in questionable circumstances from an anti-trust law perspective, it is imperative that any discussions are broken off immediately, the relevant locality is left immediately, and the Compliance Officer is informed.

c —— Measures and development

Objective	Developments and measures 2019
Require and promote behavior that meets compliance requirements	Mandatory compliance with the MM Code of Conduct by suppliers through new terms and conditions of purchase An internal information campaign was conducted at the beginning of 2019 to ensure consistent compliance with the Code of Conduct within the Group

	MM Group
Production countries with corruption index < 30 according to Transparency International Corruption Index 2019	2 of 21
Number of cases of corruption or anti-competitive practices	0

Context of non-financial topics with business development

Taking a strategic approach to dealing with non-financial issues in the context of business development allows for a comprehensive risk and opportunity management.

For the MM Group, there is a range of factors in the areas of environment, human resources and society that drive costs, revenues, and sales volumes and impact or might impact current as well as future business success.

The human capital of our employees is a significant value driver. MM Group's multi-faceted education and advanced training programs and measures aimed at employee retention and recruitment contribute to the Group having a sufficient number of qualified employees to secure and develop its position.

One relevant sales driver is represented by the continuous positioning of our products in response to changing market and consumer preferences.

Costs relating to non-financial matters result from personnel, energy requirements, water consumption, or waste generation of the MM Group. Future cost drivers might arise in particular from regulatory changes, including an increase in the costs of CO_2 certificates, changing or stricter guidelines and regulations at both national and EU levels.

On the other hand, there are broad trends in society that might constitute potential opportunities for the MM Group's business model in the future. Advancing digitalization and automation will continue to raise efficiency in production processes, thus allowing for cost savings. Developments in the transport sector may contribute to fuel and personnel cost savings. The trend towards urbanization and smaller households as well as growing private consumption in emerging economies might contribute to increased sales volumes in the future, for example through a greater demand for smaller product units.

Compared to the previous year, current business development of the Mayr-Melnhof Group in 2019 was characterized by a high level of continuity. Added to this was the integration of the Tann Group. The impacts of non-financial topics and the context of related key performance indicators (KPIs) with the annual financial statements showed no significant changes or noticeable issues. In an overall consideration of non-financial and financial aspects, we regard the measures undertaken as part of sustainability management to be effective in terms of minimizing risk and optimizing opportunity in the Group.

Non-financial indicators

Renewable raw materials and recyclability[1]	**2019**	**2018**	**2017**
Cartonboard production[2]			
Renewable raw materials	1.7 million t	1.6 million t	1.6 million t
Fiber use	1.6 million t	1.5 million t	1.6 million t
Recycled fibers[3]	1.2 million t	1.1 million t	1.2 million t
Virgin fibers[4]	0.4 million t	0.4 million t	0.4 million t
Share of renewable raw materials	88 %		
Non-renewable raw materials	0.2 million t	0.3 million t	0.3 million t
Packaging production			
Renewable raw materials	0.9 million t	0.8 million t	0.8 million t
Cartonboard and paper use	0.8 million t	0.8 million t	0.8 million t
Recycled fiber-based cartonboard	0.3 million t	0.3 million t	0.4 million t
Virgin fiber-based cartonboard	0.3 million t	0.3 million t	0.4 million t
Share of renewable raw materials	91 %		
Non-renewable raw materials	0.1 million t	0.0 million t	0.0 million t

1) including packaging materials
2) excluding MM FollaCell AS
3) excluding rejects
4) groundwood pulp equivalent

Ecological criteria in procurement	**2019**	**2018**	**2017**
Virgin fibers in cartonboard production[1) 2)]			
- from FSC®-certified sources	17 %	14 %	17 %
- from PEFC™-certified sources	36 %	38 %	36 %
- from controlled sources[3]	47 %	48 %	47 %

1) excluding MM FollaCell AS
2) groundwood pulp equivalent
3) including FSC® Controlled Wood

Product safety	**2019**	**2018**	**2017**
Percentage of cartonboard grades for which impacts on customers' health and safety are verified	100 %	100 %	100 %
ISO 9001-certified production sites[1]	52 of 52	43 of 44	43 of 44
Production sites[1], which are certified in the areas of food safety and/or hygiene	34 of 52	32 of 44	32 of 44

1) excluding MM FollaCell AS

Environmental management	**2019**	**2018**	**2017**
ISO 14001- or EMAS-certified production sites[1]	33 of 52		
ISO 50001-certified production sites[1]	10 of 52		
Energy consumption			
Energy consumption in cartonboard production[2]	3.3 TWh	3.4 TWh	3.4 TWh
Specific energy consumption[2] [3]	1.8 MWh/t	1.9 MWh/t	1.9 MWh/t
Energy consumption in packaging production	0.4 TWh	0.3 TWh	0.3 TWh
Specific energy consumption[3]	0.5 MWh/t	0.4 MWh/t	0.4 MWh/t
Direct emissions and transport-related emissions			
Direct CO_2 emissions in cartonboard production[2] [4]	0.5 million t CO_2e	0.5 million t CO_2e	0.5 million t CO_2e
Specific direct CO_2 emissions[2] [3] [4]	0.3 t CO_2e/t	0.3 t CO_2e/t	0.3 t CO_2e/t
Direct CO_2 emissions in packaging production	0.03 million t CO_2e	0.03 million t CO_2e	
Specific direct CO_2 emissions[3]	0.04 t CO_2e/t	0.04 t CO_2e/t	
Indirect CO_2 emissions from shipments to MMK customers[2]	0.1 million t CO_2e		
Water consumption			
Water consumption in cartonboard production[2]	21 million m^3	22 million m^3	24 million m^3
Water consumption in packaging production	0.7 million m^3	0.3 million m^3	0.3 million m^3
Waste			
Non-hazardous waste in cartonboard production[2]	0.2 million t	0.3 million t	0.4 million t
Non-hazardous waste in packaging production	0.1 million t		
Hazardous waste in cartonboard production[2]	1 thous. t	4 thous. t	4 thous. t
Hazardous waste in packaging production	3 thous. t		

[1] excluding MM FollaCell AS
[2] including MM FollaCell AS
[3] based on net production or tonnage processed
[4] emissions reported according to Section 9 of the Emissions Certificates Act 2011

Employees[1]	**2019**	**2018**	**2017**
Employee education and training			
MM-Academy courses	149		
Participants in MM-Academy courses	1,447	3,853	1,067
MM-Academy training hours	12,494		
Employee safety and health			
ISO 45001- or OHSAS 18001-certified production sites[2]	16 of 52		
Occupational accidents resulting in death	0	0	0
Working conditions/environment			
Cases of child labor	0	0	0
Cases of forced labor	0	0	0
Production countries[1] with Fundamental Rights Index ≤ 0.4 (Rule of Law)	3 of 21	2 of 18	2 of 18

[1] including MM FollaCell AS
[2] excluding MM FollaCell AS

Material local employment effects	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017
Number of employees[1] per country			
Germany	2,715	2,760	2,854
Austria	1,846	1,498	1,499
France	916	918	937
Poland	687	736	811
Russia	609	495	492
Turkey	450	575	612
Slovenia	389	392	389
Chile	239	270	336
Iran	239	245	263
Great Britain	236	220	232
Ukraine	224	226	229
China	212	0	0
Colombia	204	196	224
Romania	202	214	218
Netherlands	202	200	207
Spain	143	146	163
Vietnam	123	135	146
Philippines	120	0	0
Jordan	115	127	139
Norway	69	65	61
Canada	44	0	0
Others	30	27	44
Total	**10,014**	**9,445**	**9,856**

[1] full employment equivalent

Society	2019	2018	2017
Compliance with laws, standards, rules of conduct			
No significant fines or sanctions for non-compliance with legislation and regulations in the social and business field	✓	✓	✓
Anti-corruption, anti-trust compliance			
Production countries[1] with corruption index < 30 according to Transparency International Corruption Index 2019	2 of 21	1 of 18	3 of 18
Number of cases of corruption or anti-competitive practices	0	0	0

[1] including MM FollaCell AS

About the consolidated non-financial report

This consolidated non-financial report 2019 covers the activities and key figures of the Mayr-Melnhof Group according to the reporting scope and reporting period of the Annual Report 2019. PwC Wirtschaftsprüfung GmbH, Vienna, conducted an independent audit of the consolidated non-financial report with a limited scope of assurance. The corresponding report is stated on page 128.

The Mayr-Melnhof Group herewith meets its obligation to extend its financial reporting to include information on material non-financial aspects of its business activities in the areas of employee, social and environmental matters, respect for human rights and the fight against corruption and bribery.

The consolidated non-financial report of Mayr-Melnhof Karton AG is published annually and is subject to a continuous improvement process. Sustainability management and non-financial reporting continued to be driven forward in 2019. MM's focus on sustainable development objectives was clearly highlighted in this year's report and underlined by its participation in the UN Global Compact. Data collection processes were further adapted and refined to ensure the quality of non-financial data and to make their collection more efficient. This allowed the range of non-financial indicators reported to be extended. The continued development of these areas and the materiality analysis will be pursued in the coming years.

Contact:
Stephan Sweerts-Sporck

Phone: +43 1 501 36 91180
Fax: +43 1 501 36 91195
e-mail: investor.relations@mm-karton.com
Website: https://www.mayr-melnhof.com

Vienna, March 16, 2020

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p.

Franz Hiesinger m. p.

Independent limited assurance report

Independent limited assurance report on the consolidated non-financial report 2019

We have performed a limited assurance engagement of the consolidated non-financial report 2019 of Mayr-Melnhof Karton Aktiengesellschaft, Vienna, and its subsidiaries (the "Group") for the year ended December 31, 2019.

Management's responsibility
The Management is responsible for the preparation of the consolidated non-financial report 2019 in accordance with the requirements of Section 267 a of the Austrian Commercial Code. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the consolidated non-financial report 2019 that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility
Our responsibility is to express a limited assurance conclusion based on our procedures performed and evidence obtained.

We performed our engagement in accordance with the professional standards applicable in Austria with regard to KFS/PG 13 "Other assurance engagements", KFS/PE28 "Selected issues in connection with the assurance of non-financial statements and non-financial reports pursuant to Sections 243 b and 267 a of the Austrian Commercial Code as well as sustainability reports" 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.

As provided under Section 275 paragraph 2 of the Austrian Commercial Code (liability provision regarding the audit of financial statements of small and medium-sized companies), our responsibility and liability towards the Company and any third parties arising from the assurance engagement are limited to a total of EUR 2 million.

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 the following:

- Critical assessment of the Group's analysis of materiality considering the concerns of external stakeholders by interviewing the responsible employees and inspecting relevant documents

- Obtaining an overview of the policies pursued by the Group, including due diligence processes implemented as well as the processes used to ensure an accurate presentation in the non-financial report by interviewing the Company's management and inspecting internal guidelines, procedural instructions and management systems in connection with non-financial matters/disclosures

- Obtaining an understanding of reporting processes by interviewing the relevant employees and inspecting selected documentation

- Evaluating the reported disclosures by performing analytical procedures regarding non-financial performance indicators, interviewing relevant employees and inspecting selected documentations

- Examining the non-financial report regarding its completeness in accordance with the requirements of Section 267 a of the Austrian Commercial Code

- Performing additional procedures on site if required as a consequence of the risk assessment and the results of analytical procedures

- 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

- Checking the correct transfer of data and references from the (consolidated) financial statements to the non-financial report; 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, the disclosure and solution of criminal acts, such as 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.

Conclusion

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the consolidated non-financial report 2019 is not prepared, in all material aspects, in accordance with the requirements of Section 267 a of the Austrian Commercial Code.

Vienna, March 16, 2020

PwC Wirtschaftsprüfung GmbH

Aslan Milla 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, 2019	Dec. 31, 2018
ASSETS			
Property, plant and equipment	6	1,034,471	852,607
Intangible assets including goodwill	6	358,996	122,868
Investments accounted for using the equity method, securities and other financial assets	8	6,227	4,766
Deferred tax assets	9	42,454	23,573
Non-current assets		**1,442,148**	**1,003,814**
Inventories	10	363,539	346,860
Trade receivables	11	418,733	367,531
Income tax receivables		7,924	10,516
Prepaid expenses and other current assets	12	63,502	76,002
Cash and cash equivalents	31	126,807	260,982
Current assets		**980,505**	**1,061,891**
TOTAL ASSETS		**2,422,653**	**2,065,705**
EQUITY AND LIABILITIES			
Share capital	13	80,000	80,000
Additional paid-in capital	13	172,658	172,658
Retained earnings	13	1,466,884	1,341,132
Other reserves	13	(216,508)	(211,195)
Equity attributable to shareholders of the Company		**1,503,034**	**1,382,595**
Non-controlling (minority) interests	13	5,275	2,164
Total equity		**1,508,309**	**1,384,759**
Financial liabilities	14	232,540	177,348
Provisions for non-current liabilities and charges	15	147,539	115,909
Deferred tax liabilities	9	39,692	14,397
Non-current liabilities		**419,771**	**307,654**
Financial liabilities	14	112,843	34,334
Current tax liabilities		27,185	13,974
Trade liabilities	16	219,562	205,114
Deferred income and other current liabilities	17	122,793	107,981
Provisions for current liabilities and charges	18	12,190	11,889
Current liabilities		**494,573**	**373,292**
Total liabilities		**914,344**	**680,946**
TOTAL EQUITY AND LIABILITIES		**2,422,653**	**2,065,705**

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	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Sales	19	2,544,409	2,337,658
Cost of sales	21	(1,917,524)	(1,790,059)
Gross margin		**626,885**	**547,599**
Other operating income	20	11,882	12,724
Selling and distribution expenses	21	(244,427)	(223,026)
Administrative expenses	21	(138,926)	(120,146)
Other operating expenses		(143)	(69)
Operating profit		**255,271**	**217,082**
Financial income	25	1,465	1,326
Financial expenses	26	(8,394)	(6,078)
Other financial result – net	27	2,787	5,582
Profit before tax		**251,129**	**217,912**
Income tax expense	9	(60,910)	(53,747)
Profit for the year		**190,219**	**164,165**
Attributable to:			
Shareholders of the Company		189,743	163,670
Non-controlling (minority) interests	13	476	495
Profit for the year		**190,219**	**164,165**
Earnings per share for profit attributable to the shareholders of the Company during the year:			
Basic and diluted average number of shares outstanding	28	20,000,000	20,000,000
Basic and diluted earnings per share	28	**9.49**	**8.18**

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

Consolidated Comprehensive Income Statements

(all amounts in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Profit for the year	**190,219**	**164,165**
Other comprehensive income:		
Actuarial valuation of defined benefit pension and severance obligations	(19,843)	(1,280)
Effect of income taxes	5,309	429
Total of items that will not be reclassified subsequently to the income statement	**(14,534)**	**(851)**
Foreign currency translations	9,199	(34,399)
Total of items that will be reclassified subsequently to the income statement	**9,199**	**(34,399)**
Other comprehensive income (net)	**(5,335)**	**(35,250)**
Total comprehensive income	**184,884**	**128,915**
Attributable to:		
Shareholders of the Company	184,430	128,367
Non-controlling (minority) interests	454	548
Total comprehensive income	**184,884**	**128,915**

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

Consolidated Statements of Changes in Equity

		Equity attributable to shareholders of the Company								
					Other comprehensive income					
(all amounts in thousands of EUR)	Notes	Share capital	Additional paid-in capital	Retained earnings	Foreign currency translations	Actuarial gains and losses	**Other reserves**	**Total**	Non-controlling (minority) interests	**Total equity**
Balance at Jan. 1, 2018		**80,000**	**172,658**	**1,239,415**	**(125,335)**	**(50,557)**	**(175,892)**	**1,316,181**	**2,409**	**1,318,590**
Profit for the year		0	0	163,670	0	0	0	163,670	495	164,165
Other comprehensive income		0	0	0	(34,449)	(854)	(35,303)	(35,303)	53	(35,250)
Total comprehensive income		**0**	**0**	**163,670**	**(34,449)**	**(854)**	**(35,303)**	**128,367**	**548**	**128,915**
Transactions with shareholders:										
Dividends paid	13	0	0	(62,000)	0	0	0	(62,000)	(746)	(62,746)
Change in majority interests	5	0	0	47	0	0	0	47	(47)	0
Balance at Dec. 31, 2018		**80,000**	**172,658**	**1,341,132**	**(159,784)**	**(51,411)**	**(211,195)**	**1,382,595**	**2,164**	**1,384,759**
Profit for the year		0	0	189,743	0	0	0	189,743	476	190,219
Other comprehensive income		0	0	0	9,204	(14,517)	(5,313)	(5,313)	(22)	(5,335)
Total comprehensive income		**0**	**0**	**189,743**	**9,204**	**(14,517)**	**(5,313)**	**184,430**	**454**	**184,884**
Transactions with shareholders:										
Dividends paid	13	0	0	(64,000)	0	0	0	(64,000)	(1,047)	(65,047)
Change in majority interests		0	0	9	0	0	0	9	3,704	3,713
Balance at Dec. 31, 2019		**80,000**	**172,658**	**1,466,884**	**(150,580)**	**(65,928)**	**(216,508)**	**1,503,034**	**5,275**	**1,508,309**

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

Consolidated Cash Flow Statements

(all amounts in thousands of EUR)	Notes	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
CASH FLOW FROM OPERATING ACTIVITIES:			
Profit for the year		190,219	164,165
Adjustments to reconcile profit for the year to net cash from operating activities excluding interest and taxes paid:			
Income tax expense	9	60,910	53,747
Depreciation and amortization of property, plant and equipment, and intangible assets	6	134,329	107,278
Gains (losses) from disposals of property, plant and equipment, and intangible assets	20	(623)	(202)
Financial income	25	(1,465)	(1,326)
Financial expenses	26	8,394	6,078
Gains (losses) from disposals of subsidiaries	5	0	(2,882)
Share of profit (loss) of other investments	27	(283)	(422)
Gains (losses) from disposals of securities and other financial assets	27	0	(1,143)
Other adjustments	31	(145)	(11,324)
Net cash from profit		**391,336**	**313,969**
Changes in working capital:			
Inventories	10	20,035	(14,989)
Trade receivables	11	(18,702)	4,371
Prepaid expenses and other current assets	12	18,115	(7,733)
Trade liabilities	16	(8,247)	(119)
Deferred income and other current liabilities	17	(2,844)	2,080
Provisions for current liabilities and charges	18	(269)	(996)
Changes in working capital		**8,088**	**(17,386)**
Cash flow from operating activities excluding interest and taxes paid		**399,424**	**296,583**
Income taxes paid		(68,003)	(46,479)
Net cash from operating activities		**331,421**	**250,104**
CASH FLOW FROM INVESTING ACTIVITIES:			
Proceeds from disposals of property, plant and equipment, and intangible assets		1,794	2,337
Payments for acquisition of property, plant and equipment, and intangible assets (incl. payments on account)	16	(136,086)	(129,963)
Payments for acquisition of companies or other business entities, net of cash and cash equivalents acquired (2019: thous. EUR 19,392; 2018: thous. EUR 0)	5	(248,326)	0
Proceeds from disposal of companies or other business entities, net of cash and cash equivalents disposed (2019: thous. EUR 0; 2018: thous. EUR 3,520)	5	0	2,624
Proceeds from disposals of securities and other financial assets		595	4,390
Payments for securities and other financial assets		(246)	(195)
Dividends received	27	283	422
Interest received		1,432	1,351
Net cash from investing activities		**(380,554)**	**(119,034)**
CASH FLOW FROM FINANCING ACTIVITIES:			
Interest paid		(8,129)	(5,954)
Issuances of financial liabilities	31	189,019	7,241
Repayments of interest-bearing financial liabilities	31	(194,810)	(7,031)
Repayments of lease liabilities (2018: Repayments of finance lease liabilities)	31	(8,160)	(776)
Payments to non-controlling (minority) shareholders		(14)	0
Dividends paid to the shareholders of the Company	13	(64,000)	(62,000)
Dividends paid to non-controlling (minority) shareholders	13	(1,047)	(746)
Net cash from financing activities		**(87,141)**	**(69,266)**
Effect of exchange rate changes on cash and cash equivalents		2,099	1,268
Change in cash and cash equivalents		**(134,175)**	**63,072**
Cash and cash equivalents at the beginning of the year (according to the consolidated balance sheet)		**260,982**	**197,910**
Cash and cash equivalents at the end of the year (according to the consolidated balance sheet)		**126,807**	**260,982**

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

Notes to the Consolidated Financial Statements

1 — BASIC INFORMATION

The Mayr-Melnhof Group
Mayr-Melnhof Karton AG and its subsidiaries ("the Group") are primarily engaged in manufacturing and selling cartonboard and folding cartons with a focus on Europe. The parent company of the Group is Mayr-Melnhof Karton AG, located at Brahmsplatz 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): Mayr-Melnhof Karton ("MM Karton") and Mayr-Melnhof Packaging ("MM Packaging"). MM Karton manufactures and markets numerous grades of cartonboard, focusing on coated cartonboard produced predominantly from recovered paper as well as virgin fiber-based cartonboard. 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).

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 such as certain financial instruments and defined benefit obligations.

The present consolidated financial statements comprise the period from January 1 till December 31, 2019 and have been signed by the Management Board and have been approved by the Supervisory Board as of March 16, 2020.

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, IFRS and interpretations as well as newly enacted standards and interpretations, as published in the Official Journal of the European Union no later than December 31, 2019 and with an effective date no later than this date, were taken into consideration:

New standards	Content	Effective
IFRS 16	Leases	2019
Revised standards	**Content**	**Effective**
IFRS 9	Prepayment Features with Negative Compensation	2019
IAS 19	Plan Amendment, Curtailment and Settlement	2019
IAS 28	Long-term Interests in Associates and Joint Ventures	2019
	Annual Improvements to IFRS Standards 2015-2017 Cycle	2019
New interpretations	**Content**	**Effective**
IFRIC 23	Uncertainty over Income Tax Treatments	2019

If applicable, the effective regulations were applied in the present consolidated financial statements. These regulations do not have any significant impact on the Group's financial situation and profitability except for explanations to the newly applicable standard IFRS 16 provided in the following section.

Furthermore, the following new and revised standards were endorsed by the EU until December 31, 2019; their application is, however, not yet compulsory for the financial year 2019:

Revised standards	Content	Effective
IAS 1/IAS 8	Definition of Material	2020
	References to the Conceptual Framework in IFRS Standards	2020

Additionally, the following new and revised standards were published by IASB until December 31, 2019 but have not yet been endorsed by the EU:

New standards	Content	Effective
IFRS 17	Insurance Contracts	2021
Revised standards	**Content**	**Effective**
IFRS 9/IAS 39/IFRS 7	Interest Rate Benchmark Reform	2020
IFRS 3	Definition of a Business	2020

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, as the Group does not apply hedge accouting and the narrowly formulated definition of a business does not influence future business combinations.

IFRS 16, which was newly applicable in 2019, is described as follows:

IFRS 16 "Leases" was issued in January 2016, replacing the former IAS 17 and related interpretations. IFRS 16 sets out new rules for the accounting of leases and introduces a standardized reporting model according to which leases are recognized in the lessee's balance sheet in the future. A lessee recognizes a right-of-use asset to the underlying asset of the lease agreement and a liability representing the lease payment obligations. Reporting for the lessor remains almost unchanged compared to the current standard, so there has been no material impact on the consolidated financial statements for 2019.

Right-of-use assets which are included in property, plant and equipment are measured at cost less any accumulated depreciation and, if necessary, any required impairment. The cost of a right-of-use asset comprises the present value of all future lease payments (lease liabilities), adjusted for any prepaid or accrued lease payments. The right-of-use assets are depreciated on a straight-line basis over the shorter of the asset's useful life and the lease term. The relevant assumptions for determining the useful life of offices and warehouses with unlimited agreements were adopted according to the strategic objectives, location and costs.

Lease liabilities with a term of more than twelve months are measured at the present value of the remaining lease payments. All contracts which were identified as leases according to IAS 17 as of December 31, 2018 are taken over into IFRS 16. Hence, leases previously classified as finance leases were carried forward without changes. For the recognition of lease liabilities, certain extension or termination options were taken into account, if the Group was reasonably certain that the options would be exercised in the future. If the duration of the contract is indefinite, the lease term is determined based on expectations.

The Group has applied IFRS 16 for the first time as of January 1, 2019 using the modified retrospective approach. Comparative amounts for the year prior to the first-time adoption have not been restated. The right-of-use asset, reported under property, plant and equipment, was recognized in the same amount as the corresponding lease liability as of the first-time adoption date on January 1, 2019. Thus, there is no impact on equity.

The Group applies the exceptions governing leases relating to low-value assets and short-term leases. Therefore, these transactions are not reported in the balance sheet, but as expense as incurred. Low-value assets are defined as assets with a value of a maximum of thous. EUR 5. A short-term lease is defined as a lease with a term of up to twelve months. The option to account lease contracts that have a dura-tion of up to twelve months from initial application as short-term lease contracts is also applied. Furthermore, initial direct costs were not included in the measurement of the right-of-use asset at the time of the first-time application.

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. Hence, at initial application of IFRS 16 within the Group, lease liabilities were discounted with the incremental borrowing rates as of January 1, 2019. The weighted average incremental borrowing rate applied to the lease liabilities as of January 1, 2019, was 3.08 %. The interest expense is recognized in the income statement over the lease period based on the remaining lease liability.

The Group mainly rents and leases buildings, land, warehouses, offices, and other facilities that are necessary for the operating business. The majority of right-of-use assets relates to buildings. The Group has assessed and taken into account the underlying extension and termination options. The assumptions made may differ from the original estimates in the future and may have an impact on the right-of-use assets and lease liabilities.

The following table shows the reconciliation of presented future minimum payments for lease commitments as of December 31, 2018 to the lease liabilities as of January 1, 2019:

(in thousands of EUR)

Total amount of future minimum lease payments under operating leases at Dec. 31, 2018	**75,629**
- Exemptions for short-term leases	(1,350)
- Exemptions for leases of low-value assets	(1,831)
- Adaptions related to options to extend or terminate a lease	(562)
+/- Other adaptions	(577)
Undiscounted liabilities from operating leases at Jan. 1, 2019	**71,309**
- Discounting effects	(18,354)
Discounted Liabilities from operating leases at Jan. 1, 2019	**52,955**
Liabilities from finance leases acc. to IAS 17 at Dec. 31, 2018	**1,301**
Total amount of lease liabilities acc. to IFRS 16 at Jan. 1, 2019	**54,256**
Thereof non-current lease liabilities	47,061
Thereof current lease liabilities	7,195

As of January 1, 2019, as a result of the first-time application of IFRS 16, property, plant and equipment increased by thous. EUR 52,955 due to the recognition of right-of-use assets. Accordingly, lease liabilities which are reported under financial liabilities increased by the same amount. More detailed information about the leases in the Group recognized in the balance sheet is shown in note 6a und 14b.

The income statement is affected by the replacement of operating lease expenses previously recognized in operating profit through amortization of right-of-use assets as well as interest expenses on lease liabilities presented in the financial expenses.

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 and therefore have no impact on the consolidated income statement.

Non-controlling (minority) interests represent the external shareholders' proportionate share in equity and total profit for the year in subsidiaries of the Group. These minority interests are presented separately within equity.

Any effects of intercompany transactions are entirely eliminated.

Foreign 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. Differences arising from the translation of assets and liabilities in comparison with the previous periods are recognized as a separate component of 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.

Exchange rate 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:

		Exchange rate at Dec. 31, 2019	**Exchange rate at Dec. 31, 2018**	**Annual average exchange rate 2019**	**Annual average exchange rate 2018**
Country:	**Currency:**	**1 EUR =**	**1 EUR =**	**1 EUR =**	**1 EUR =**
Bulgaria	BGN	1.96	1.96	1.96	1.96
Canada	CAD	1.46	-	1.49	-
Chile	CLP	832	796	791	755
China	CNY	7.82	7.88	7.73	7.81
Colombia	COP	3,679	3,715	3,690	3,501
Czech Republic	CZK	25.41	25.72	25.66	25.67
Great Britain	GBP	0.85	0.89	0.88	0.89
Jordan	JOD	0.80	0.81	0.80	0.84
Malaysia	MYR	4.60	4.73	4.64	4.76
Norway	NOK	9.86	9.95	9.85	9.64
Philippines	PHP	56.35	-	58.00	-
Poland	PLN	4.26	4.30	4.30	4.26
Romania	RON	4.78	4.66	4.74	4.66
Russia	RUB	69.34	79.46	72.54	73.49
Switzerland	CHF	1.09	1.13	1.11	1.15
Tunisia	TND	3.14	3.43	3.27	3.12
Turkey	TRY	6.65	6.03	6.33	5.44
Ukraine	UAH	26.42	31.71	28.87	32.31
Vietnam	VND	26,066	26,666	26,116	27,211

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 valuated based on an independent external expert report. 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. Additional 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.

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 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 cause a reduction of the 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 for acquisitions
As a consequence of company acquisitions a goodwill is reported in the consolidated balance sheet, or a negative goodwill 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 is in particular 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 annual growth rates, and EBITDA margin/costs 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

In the course of the implementation of the Kyoto Protocol, Directive 2003/87/EC came into force in the European Union on January 1, 2005. Based on this Directive (and the follow-up regulations), the Group is obliged to redeem specified emission rights for carbon dioxide emissions incurred during cartonboard production. These emission rights have been allocated free of charge to the Group's respective production sites for the period from 2013 to 2020. For the period from 2021 to 2030, the allocation process is currently reviewed by the EU. As far as is currently known rights will again be allocated free of charge according to a benchmark system whose conditions are currently revised by the EU commission. The adoption of the implementing act is expected for mid-2020.

As IFRIC 3 "Emission Rights" has been withdrawn by the IASB, there are no definite regulations concerning the accounting treatment of emission rights. Therefore, these emission rights are recognized in accordance with IAS 38 "Intangible Assets" as intangible assets in "Prepaid expenses and other current assets", measured at cost amounting to zero, if the rights have been allocated free of charge. If actual carbon dioxide emissions exceed the number of existing emission rights during the reporting period at the balance sheet date, a provision for these missing emission rights in the amount of their market value has to be accounted for. As of December 31, 2019 and 2018, the Group had sufficient emission rights available.

Accordingly, only expenses from the use of acquired emission rights and 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 consequences for 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 valuation allowance for the respective assets has to be recorded (see note 9).

Duration of leases

The Group determines the duration of the lease 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 offices and warehouses with unlimited agreements were adopted according to strategic ojectives, location and costs (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 result, can result in a significant change in non-current provision as well as equity (see note 15).

Other provisions

The use 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 18).

5 — CHANGES IN THE CONSOLIDATED COMPANIES

a — Changes in 2019

In January 2019, the division MM Packaging acquired 100 % of the shares in Eurasia Invest Holding AG including its subsidiaries, i.e. the Tann-Group. The Tann-Group, headquartered in Traun, Austria, finishes externally sourced fine paper in a gravure printing process to produce cigarette filter paper (tipping paper) and is a global market leader in this field. Through the acquisition, MM Packaging expands the existing production of folding carton packaging by the technologically related production of tipping paper. Based on technological similarities and a long-standing cooperation with the same top-customers, the acquisition fits strategically well into the division MM Packaging. The aim is to strengthen the profitability of the division through extended value added. Additionally, the development of the plants should be used to exploit new potential.

The cash-paid purchase price amounts to thous. EUR 267,718, of which thous. EUR 10,000 are deposited on an escrow account as of the balance sheet date, and was financed by cash as well as using available credit lines in an amount of thous. EUR 120,000. Inclusion into the Group and division was effected on January 15, 2019.

The fair values of the acquired assets and liabilities according to IFRS at the acquisition date were presented as follows:

Fair values according to IFRS

(in thousands of EUR)	Jan. 15, 2019
Property, plant and equipment	98,485
Intangible assets	114,204
Securities and other financial assets	357
Deferred tax assets	2,894
Inventories	33,301
Trade receivables	29,520
Prepaid expenses and other current assets	12,476
Cash and cash equivalents	19,392
Non-controlling (minority) interests	(3,727)
Deferred tax liabilities	(34,681)
Provisions for non-current liabilities and charges	(11,241)
Financial liabilities	(90,615)
Current tax liabilities	(3,212)
Trade liabilities	(12,084)
Prepaid expenses, other provisions and liabilities	(17,847)
Goodwill	130,496
Net assets	**267,718**

The fair values of machines and technical equipment were determined by an independent external expert using a cost-based approach based on replacement cost or valorised acquisitions cost for similar machines. The real estate was measured at fair value as determined by independent external expert reports depending on the available market data using either market or income approach.

The intangible assets include, in particular, of customer relationships in an amount of thous. EUR 112,861, which are based on long-term customer relations and amortized over a useful life of up to 21 years.

Trade receivables comprise gross contractual receivables amounting to thous. EUR 30,196 of which thous. EUR 676 are estimated as presumably irrecoverable, resulting in a fair value of thous. EUR 29,520. In the case of tax receivables in the amount of thous. EUR 5,945 as well as other receivables of thous. EUR 5,776 the fair values correspond to the gross amounts. Due to the short-term nature of receivables, the Group assumes that the future cash flows correspond to the fair value. The Group has not recognized any contigent liabilities in the course of the transaction.

The remaining goodwill of thous. EUR 130,496 mainly reflects expected synergies achieved by portfolio expansion, network effects of the acquired sites and the leading market position in the field of tipping paper. There are additional adjustments of balance sheet positions and remaining goodwill of thous. EUR 1,432 in comparison to the values as of June 30, 2019, which arose from the final evaluation in the course of the purchase price allocation. Non-controlling (minority) interests of thous. EUR 3,727 have been determined as a proportionate share of the identifiable net assets of the respective subsidiaries. Recognized goodwill is not deductible for tax purposes.

Of the acquisition-related costs amounting to thous. EUR 1,388, thous. EUR 983 were recorded as expense in the financial year 2018 and thous. EUR 405 in the financial year 2019 and reported under administrative expenses in the consolidated income statement.

Sales and profit before tax for the time the business belonged to the Group and division in the financial year 2019 amounted to thous. EUR 213,504 and thous. EUR 22,256. Profit before tax was reduced by a non-recurring effect amounting to thous. EUR 4,808, which results from the valuation of inventory and order backlog performed in the course of the purchase price allocation and was recognized as cost of sales in the first half-year. If the acquisition had been concluded as of January 1, 2019, the Tann-Group would have addidionally contributed thous. EUR 7,481 to the Group’s sales and thous. EUR 1,320 to the Group’s profit before tax.

Additionally, there were a purchase of interests in a joint venture (see note 8) and further insignificant changes in individual subsidiaries (see note 33).

b — Changes in 2018

In March 2018, the division MM Karton sold 100 % of its interests in Firgos (Malaysia) SDN BHD for a purchase price of thous. EUR 6,144, settled in cash. The transferred cash amounted to thous. EUR 3,520. A gain of thous. EUR 2,866 resulting from deconsolidation of this company was recognized under other operating income.

Additionally, there were further insignificant changes in individual subsidiaries (see note 33).

6 — DEVELOPMENT OF FIXED ASSETS

a — 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. Therefore, 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.

Development of property, plant and equipment 2019

(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, 2019	**550,254**	**1,690,388**	**176,808**	**54,127**	**2,471,577**
Recognition right-of-use assets from initial application of IFRS 16	49,279	1,413	2,263	0	52,955
Adjusted balance at Jan. 1, 2019	**599,533**	**1,691,801**	**179,071**	**54,127**	**2,524,532**
Effect of exchange rate changes	3,274	3,623	537	310	7,744
Changes in consolidated companies	48,824	45,288	2,825	1,548	98,485
Additions	10,845	60,693	11,182	71,246	153,966
Disposals	(2,576)	(17,793)	(5,195)	(17)	(25,581)
Reclassifications	9,916	35,837	1,665	(48,538)	(1,120)
Balance at Dec. 31, 2019	**669,816**	**1,819,449**	**190,085**	**78,676**	**2,758,026**
ACCUMULATED DEPRECIATION AND IMPAIRMENT:					
Balance at Jan. 1, 2019	**271,103**	**1,213,908**	**133,959**	**0**	**1,618,970**
Effect of exchange rate changes	1,051	2,066	490	0	3,607
Disposals	(1,458)	(15,640)	(4,701)	0	(21,799)
Depreciation/amortization expense for the year	23,491	86,064	13,475	0	123,030
Reclassifications	(16)	(225)	(12)	0	(253)
Balance at Dec. 31, 2019	**294,171**	**1,286,173**	**143,211**	**0**	**1,723,555**
NET BOOK VALUE:					
Net book value at Dec. 31, 2019	**375,645**	**533,276**	**46,874**	**78,676**	**1,034,471**
Net book value at Dec. 31, 2018	**279,151**	**476,480**	**42,849**	**54,127**	**852,607**

Development of property, plant and equipment 2018

(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, 2018	**540,663**	**1,616,048**	**169,849**	**96,724**	**2,423,284**
Effect of exchange rate changes	(5,623)	(18,731)	(1,681)	(80)	(26,115)
Changes in consolidated companies	0	0	(81)	0	(81)
Additions	4,917	65,533	12,096	32,362	114,908
Disposals	(210)	(24,120)	(5,770)	(144)	(30,244)
Reclassifications	10,507	51,658	2,395	(74,735)	(10,175)
Balance at Dec. 31, 2018	**550,254**	**1,690,388**	**176,808**	**54,127**	**2,471,577**
ACCUMULATED DEPRECIATION AND IMPAIRMENT:					
Balance at Jan. 1, 2018	**261,143**	**1,174,023**	**129,318**	**(75)**	**1,564,409**
Effect of exchange rate changes	(1,546)	(10,793)	(1,063)	2	(13,400)
Disposals	(106)	(22,652)	(5,590)	0	(28,348)
Depreciation/amortization expense for the year	13,717	76,227	11,056	0	101,000
Reclassifications	(2,105)	(2,897)	238	73	(4,691)
Balance at Dec. 31, 2018	**271,103**	**1,213,908**	**133,959**	**0**	**1,618,970**
NET BOOK VALUE:					
Net book value at Dec. 31, 2018	**279,151**	**476,480**	**42,849**	**54,127**	**852,607**
Net book value at Dec. 31, 2017	**279,520**	**442,025**	**40,531**	**96,799**	**858,875**

Leases

The first-time application of IFRS 16 comprises the following items in the balance sheet for leases in which the Group is a lessee. The table presents 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, 2019	**3,066**	**2,621**	**0**	**5,687**
Recognition right-of-use assets from initial application of IFRS 16	49,279	1,413	2,263	52,955
Adjusted balance at Jan. 1, 2019	**52,345**	**4,034**	**2,263**	**58,642**
Effect of exchange rate changes	219	(41)	22	200
Changes in consolidated companies	3,236	0	131	3,367
Additions	4,355	616	135	5,106
Disposals	(1,073)	0	(23)	(1,096)
Amortization expense for the year	(7,613)	(1,246)	(785)	(9,644)
Balance at Dec. 31, 2019	**51,469**	**3,363**	**1,743**	**56,575**

Disposals of the right-of-use assets essentially include contract adjustments and changes in term assumptions.

b — 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 2019

(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, 2019	**62,898**	**115,510**	**31,838**	**210,246**
Effect of exchange rate changes	(10)	(108)	(417)	(535)
Changes in consolidated companies	1,343	130,496	112,861	244,700
Additions	2,236	0	0	2,236
Disposals	(267)	0	0	(267)
Reclassifications	625	0	0	625
Balance at Dec. 31, 2019	**66,825**	**245,898**	**144,282**	**457,005**
ACCUMULATED AMORTIZATION AND IMPAIRMENT:				
Balance at Jan. 1, 2019	**54,086**	**9,046**	**24,246**	**87,378**
Effect of exchange rate changes	(13)	2	(410)	(421)
Disposals	(247)	0	0	(247)
Amortization expense for the year	2,743	0	8,556	11,299
Balance at Dec. 31, 2019	**56,569**	**9,048**	**32,392**	**98,009**
NET BOOK VALUE:				
Net book value at Dec. 31, 2019	**10,256**	**236,850**	**111,890**	**358,996**
Net book value at Dec. 31, 2018	**8,812**	**106,464**	**7,592**	**122,868**

Development of intangible assets including goodwill 2018

(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, 2018	**58,345**	**116,726**	**34,905**	**209,976**
Effect of exchange rate changes	(155)	(1,212)	(1,261)	(2,628)
Changes in consolidated companies	0	(4)	(1,806)	(1,810)
Additions	3,318	0	0	3,318
Disposals	(660)	0	0	(660)
Reclassifications	2,050	0	0	2,050
Balance at Dec. 31, 2018	**62,898**	**115,510**	**31,838**	**210,246**
ACCUMULATED AMORTIZATION AND IMPAIRMENT:				
Balance at Jan. 1, 2018	**51,726**	**9,049**	**22,938**	**83,713**
Effect of exchange rate changes	(112)	(3)	(993)	(1,108)
Changes in consolidated companies	0	0	(1,084)	(1,084)
Disposals	(421)	0	0	(421)
Amortization expense for the year	2,893	0	3,385	6,278
Balance at Dec. 31, 2018	**54,086**	**9,046**	**24,246**	**87,378**
NET BOOK VALUE:				
Net book value at Dec. 31, 2018	**8,812**	**106,464**	**7,592**	**122,868**
Net book value at Dec. 31, 2017	**6,619**	**107,677**	**11,967**	**126,263**

In the financial year 2019, depreciation and amortization expenses recorded under "Property, plant and equipment" and "Intangible assets including goodwill" amounted to thous. EUR 134,329 (2018: thous. EUR 107,278). The amortization of the position "Intangible assets" 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.

c — 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. 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, value in use is determined for the concerned subsidiary 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. Neither in 2019 nor in 2018 an impairment on assets was recognized on this basis.

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 Karton 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, 2019**	**Dec. 31, 2018**
Goodwill MM Karton	4,612	4,612
Goodwill MM Packaging	232,238	101,852
Goodwill Group	**236,850**	**106,464**

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 9.98 % (2018: 10.11 %) for the segment MM Karton and to 12.99 % (2018: 13.02 %) 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 (2018: 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.
Growth rate	For the Free Cash Flows after the five year detailed forecast period a continuous growth rate of 1.5 % p.a. (2018: 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. Capital expenditures are expected to be in the same amount as depreciation.

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, 2019 and December 31, 2018. Neither in 2019 nor in 2018 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, 2019 amounts to 17.25 % (December 31, 2018: 16.95 %) for the operating segment MM Karton and to 15.64 % (December 31, 2018: 18.30 %) 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, 2019 nor as of December 31, 2018, for both operating segments.

As of December 31, 2019, the Group's market capitalization amounted to thous. EUR 2,392,000 (December 31, 2018: thous. EUR 2,200,000), and the book value of equity amounted to thous. EUR 1,508,309 (December 31, 2018: thous. EUR 1,384,759).

7 — FINANCIAL INSTRUMENTS DISCLOSURES

a — 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 on specified dates to cash flows 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 liquid funds, such as fixed deposits and cash items, are classified in this measurement category.

A debt instrument that meets the following two conditions is measured at fair value through other comprehensive income (with recycling):

- The financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets.

- The contractual terms of the financial asset give rise on specified dates 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 that are of low significance, and those costs 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. For financial instruments which are measured at amortized cost, there is an option to designate them as at fair value. For investments in equity instruments which are measured at fair value through profit or loss, there is an option to measure them at fair value through other comprehensive income. The Group does not make use of these two options.

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.

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 a potential impairment.

Financial liabilities of the Group comprise interest-bearing financial liabilities and 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
At amortized cost	Financial liabilities, trade liabilities

Financial liabilities measured at fair value through profit and loss 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.

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:

(in thousands of EUR)	At fair value through profit and loss	At amortized cost[2]	**Total**
	Carrying amount at Dec. 31, 2019		
Securities and other financial assets[1]	1,682	969	2,651
Trade receivables	0	418,733	418,733
Other receivables and assets incl. derivatives[3]	1,660	8,262	9,922
Cash and cash equivalents	0	126,807	126,807
Total	**3,342**	**554,771**	**558,113**
	Carrying amount at Dec. 31, 2018		
Securities and other financial assets[1]	1,188	1,442	2,630
Trade receivables	0	367,531	367,531
Other receivables and assets incl. derivatives[3]	717	9,119	9,836
Cash and cash equivalents	0	260,982	260,982
Total	**1,905**	**639,074**	**640,979**

1) For measurement of “other financial assets” classified as “at fair value through profit and loss”, see note 7e.
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 respectively by which method these financial instruments are measured:

	At fair value through profit and loss	At amortized cost[1]	**Total**
(in thousands of EUR)	**Carrying amount at Dec. 31, 2019**		
Interest-bearing financial liabilities	0	291,720	291,720
Lease liabilities	0	53,663	53,663
Trade liabilities	0	219,562	219,562
Other liabilities incl. derivatives[2]	1,840	10,144	11,984
Total	**1,840**	**575,089**	**576,929**
	Carrying amount at Dec. 31, 2018		
Interest-bearing financial liabilities incl. finance lease	0	211,682	211,682
Trade liabilities	0	205,114	205,114
Other liabilities incl. derivatives[2]	963	7,657	8,620
Total	**963**	**424,453**	**425,416**

[1] The reported amounts regarding financial liabilities measured at amortized cost represent a proper approximation to the fair value.
[2] 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 2019		
In profit for the year	**1,238**	**1,524**	**2,762**
Interest/dividends received	283	1,465	1,748
Fair value/carrying amount changes	955	59	1,014
In other comprehensive income	**0**	**0**	**0**
Change in fair value	0	0	0
Net profit/loss	**1,238**	**1,524**	**2,762**
	Income and expense 2018		
In profit for the year	**219**	**1,068**	**1,287**
Interest/dividends received	422	1,326	1,748
Fair value/carrying amount changes	(1,346)	(258)	(1,604)
Gains/losses from disposals	1,143	0	1,143
In other comprehensive income	**0**	**0**	**0**
Change in fair value	0	0	0
Net profit/loss	**219**	**1,068**	**1,287**

All income and expenses are recognized in the income statement.

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 amortized cost	Total
	Income and expense 2019		
In profit for the year	**(877)**	**(8,229)**	**(9,106)**
Interest	0	(8,394)	(8,394)
Fair value/carrying amount changes	(877)	165	(712)
Net profit/loss	**(877)**	**(8,229)**	**(9,106)**
	Income and expense 2018		
In profit for the year	**32**	**(6,078)**	**(6,046)**
Interest	0	(6,078)	(6,078)
Fair value/carrying amount changes	32	0	32
Net profit/loss	**32**	**(6,078)**	**(6,046)**

b — 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 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, 2019, the Group had concluded foreign exchange forward, swap and option contracts with a nominal value of receivables of thous. EUR 178,668 (December 31, 2018: thous. EUR 174,282) and liabilities of thous. EUR 178,891 (December 31, 2018: thous. EUR 174,443) with a negative total market value of thous. EUR 180 (December 31, 2018: thous. EUR 246).

The derivative financial instruments are recorded in the consolidated balance sheet under "Prepaid expenses and other current assets" as current assets in the amount of thous. EUR 1,660 (December 31, 2018: thous. EUR 717) and under "Deferred income and other current liabilities" as current liabilities in the amount of thous. EUR 1,840 (December 31, 2018: thous. EUR 963).

As there is no hedge accounting in the MM Group, the corresponding rules in accordance with IFRS 9 are not applied.

c — 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-fulfillment 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 cause a concentration of financial risks within the Group in certain cases comprise primarily cash and cash equivalents and trade receivables. Trade receivables derive from a broad and diversified group of customers 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 certain potentially non-collectible receivables.

Furthermore, the Group forms allowances based on the expected loss of the total volume of receivables. If trade accounts receivables 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 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 loss ("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, and Asia-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, the Group considers the risk of non-fulfillment 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 credit lines. 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, 2019					
Interest-bearing financial liabilities	47,570	56,924	13,928	103,298	70,000
Interest for interest-bearing financial liabilities	437	3,782	3,721	9,346	2,839
Lease liabilities	1,866	6,483	7,074	12,966	25,274
Interest for lease liabilities	389	1,123	1,346	3,214	13,544
Trade liabilities	178,516	40,923	123	0	0
Payment obligations from derivative financial instruments	167,206	11,685	0	0	0
Payment entitlements for derivative financial instruments	(167,137)	(11,530)	0	0	0
Balance at Dec. 31, 2018					
Interest-bearing financial liabilities incl. finance lease	23,041	11,293	6,410	20,938	150,000
Interest for interest-bearing financial liabilities incl. finance lease	267	3,386	3,398	9,293	5,745
Trade liabilities	204,786	328	0	0	0
Payment obligations from derivative financial instruments	157,784	16,659	0	0	0
Payment entitlements for derivative financial instruments	(158,103)	(16,179)	0	0	0

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, 2019 (December 31, 2018) 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.

		Impact on profit for the year and equity in thousands of EUR	
Currency	**Volatility**	**2019**	**2018**
EUR[1)]	+/- 5 %	-/+ 253	-/+ 340
GBP	+/- 5 %	+/- 198	+/- 101
USD	+/- 5 %	-/+ 439	-/+ 59

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, 2019, 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, 2019 (December 31, 2018) had been higher or lower by ten basis points (i. e. 0.1 %), 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	
		2019	2018
Financial assets with variable interest	+/- 0.1 %	+/- 25	+/- 20
Financial liabilities with variable interest	+/- 0.1 %	-/+ 151	-/+ 100

d — 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, 2019 and December 31, 2018 amounted to:

(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018
Total equity	1,508,309	1,384,759
Total assets	2,422,653	2,065,705
Equity ratio	62.3 %	67.0 %

The aim of capital management to achieve an equity ratio ranging from 50 % to 70 % remains unchanged in comparison to the previous year. The Company fulfills 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.

Group's liquidity reserves are reflected by net debt indicator. It is calculated as of December 31, 2019 and December 31, 2018 as follows:

(in thousands of EUR)	**Dec. 31, 2019**	**Dec. 31, 2018**
Total funds available	126,807	261,143
Financial liabilities	(345,383)	(211,682)
Net debt (-)/Net liquidity (+)	**(218,576)**	**49,461**

Total funds available to the Group decreased in particular due to the purchase price payment for the acquisition of Tann-Group resulting in a net debt as of December 31, 2019 in comparison to a net liquidity as of December 31, 2018.

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. All of these clauses were complied with in the financial year.

e — 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, 2019**	**Dec. 31, 2018**
Financial assets:		
Derivative financial instruments (level 2)	1,660	717
Securities (level 1)	367	0
Financial liabilities:		
Derivative financial instruments (level 2)	1,840	963

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 method using directly or indirectly observable market data

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 general, there are also financial instruments measured at fair value using parameters for which no observable market data exist (Level 3 measurement). There are currently no financial instruments for which this measurement method would be applicable in the Group.

As of December 31, 2019, other financial assets classified as "at fair value through profit or loss" include investments in unconsolidated companies in the amount of thous. EUR 1,315 (December 31, 2018: thous. EUR 1,188). 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 but at their acquisition cost because of immateriality.

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". Cost represents an appropriate estimate of the fair value and the amount is of low significance for the Group, however.

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, 2019	Dec. 31, 2018
Investments in associated companies	2,104	2,136
Investments in joint ventures	1,472	0
Other investments	1,315	1,188
Liability insurance not pledged to beneficiaries	848	1,281
Non-current securities	488	161
Investments accounted for using the equity method, securities and other financial assets	**6,227**	**4,766**

As of December 31, 2019, non-current securities of the Group comprised investment funds and fixed-interest-bearing securities in the amount of thous. EUR 488. In the previous year, the Group held only non-current fixed-interest-bearing securities amounting to thous. EUR 161.

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:

	Investments in associates		Investments in joint ventures	
(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Share of result for the year[1]	(230)	(347)	(64)	0
Share of other comprehensive income[2]	198	(824)	1	0
Share of total comprehensive income	**(32)**	**(1,171)**	**(63)**	**0**

[1] recognized in “Other financial result – net”
[2] Share of foreign 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 obtain 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 the deferred tax asset or the settlement of 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, 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.

a — 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, 2019	Dec. 31, 2018
Intangible assets	1,666	1,943
Property, plant and equipment	10,234	9,389
Inventories	6,650	6,247
Defined benefit plans and other liabilities and charges	28,465	21,166
Loans receivable, investments and securities	1,862	1,615
Loss carryforwards	11,970	13,908
Financial liabilities	13,500	355
Other	2,968	3,385
Gross deferred tax assets	**77,315**	**58,008**
Unrecognized deferred tax assets	(9,408)	(12,362)
Net deferred tax assets	**67,907**	**45,646**
Offset	(25,453)	(22,073)
Deferred tax assets in the balance sheet	**42,454**	**23,573**
Intangible assets	(28,313)	(3,271)
Property, plant and equipment	(25,488)	(10,873)
Inventories	(797)	(901)
Defined benefit plans and other liabilities and charges	(3,728)	(11,515)
Loans receivable, investments and securities	(2,489)	(3,485)
Other	(4,330)	(6,425)
Net deferred tax liabilities	**(65,145)**	**(36,470)**
Offset	25,453	22,073
Deferred tax liabilities in the balance sheet	**(39,692)**	**(14,397)**

The unrecognized deferred tax assets in the amount of thous. EUR 9,408 (December 31, 2018: thous. EUR 12,362) comprise thous. EUR 8,252 (December 31, 2018: thous. EUR 10,834) of unrecognized loss carryforwards.

The following table shows the expected realization of deferred tax assets and liabilities:

(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018
Deferred tax assets, realized within 12 months	12,740	11,543
Deferred tax assets, realized after 12 months	55,167	34,103
Deferred tax assets	**67,907**	**45,646**
Deferred tax liabilities, realized within 12 months	(2,834)	(8,339)
Deferred tax liabilities, realized after 12 months	(62,311)	(28,131)
Deferred tax liabilities	**(65,145)**	**(36,470)**

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 1,273,295 at December 31, 2019 (December 31, 2018: thous. EUR 1,090,353). 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.

Tax assesment is still outstanding for several years. After a detailed analysis of potential risks, the Group considers all the risks for pending years of tax assesments to be covered sufficiently.

b — 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, 2019	Dec. 31, 2018
Loss carryforwards with expiration	25,100	28,557
Loss carryforwards with no expiration	24,240	27,455
Loss carryforwards	**49,340**	**56,012**

(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018
Recognized loss carryforwards	15,453	12,288
Unrecognized loss carryforwards	33,887	43,724
Loss carryforwards	**49,340**	**56,012**

The loss carryforwards limited in time will expire between 2020 and 2024 unless they are utilized before these dates.

The assessment of the recognition of loss carryforwards showed that for thous. EUR 15,453 (December 31, 2018: thous. EUR 12,288), deferred tax assets amounting to thous. EUR 3,718 (December 31, 2018: thous. EUR 3,074) were recognized. For the remaining amount of thous. EUR 33,887 (December 31, 2018: thous. EUR 43,724), deferred tax assets amounting to thous. EUR 8,252 (December 31, 2018: thous. EUR 10,834) were not recorded in the balance sheet. The expiry dates of this unrecognized loss carryforwards are as follows:

(in thousands of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**
1 year	2,480	810
2 years	2,103	1,189
3 years	7,473	4,377
4 years	8,065	9,855
5 years	3,370	8,621
After 5 years	0	784
No expiration	10,396	18,088
Total	**33,887**	**43,724**

c — "Income tax expense" recognized in the income statement

The position "income tax expense" is comprised as follows:

(in thousands of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**
Current taxes:		
Current period	74,544	55,816
Due to utilization of previously unrecognized loss carryforwards	(154)	(15)
Prior periods	6,649	(346)
Deferred taxes:		
Due to temporary differences	(18,989)	(3,536)
Due to tax loss carryforwards of the current period	(2,086)	(182)
Due to utilization of recognized loss carryforwards	1,254	2,259
Due to change of allowances	(39)	(31)
Due to tax rate changes	(269)	(218)
Income tax expense	**60,910**	**53,747**

d — Tax effects on "Other comprehensive income"

The amount of income taxes directly recognized in other comprehensive income is based on actuarial losses from defined benefit plans booked in 2019 amounting to thous. EUR 19,843 (2018: thous. EUR 1,280). Thereon deferred taxes amounting to thous. EUR 5,309 (2018: thous. EUR 429), were recognized for the financial year 2019. As a result, actuarial losses from defined benefit plans after tax amounted to thous. EUR 14,534 (2018: thous. EUR 851).

e — 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 %)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Applicable tax rate	**24.05 %**	**24.56 %**
Non-deductible expenses and tax-free income	(0.66 %)	(2.17 %)
Tax effect from unrecognized loss carryforwards of the financial year	0.29 %	1.51 %
Tax effect from the recognition of loss carryforwards of previous years	(0.83 %)	0.00 %
Tax effect from utilization of unrecognized loss carryforwards	(0.06 %)	(0.01 %)
Tax effect from changed assumptions of recoverability of deferred tax assets allowances	(0.02 %)	0.09 %
Tax effect from capital gains and withholding tax	1.28 %	1.56 %
Tax effect from tax rate changes	(0.10 %)	(0.10 %)
Non-periodic income tax expense or revenue (current and deferred)	0.32 %	(0.82 %)
Other effects	(0.02 %)	0.04 %
Effective tax rate	**24.25 %**	**24.66 %**

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 cartonboard division. 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 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, 2019	Dec. 31, 2018
Raw materials, manufacturing and operating supplies	204,795	191,653
Work in process	26,565	26,412
Finished goods and goods for resale	165,090	158,108
Total	**396,450**	**376,173**
Write-downs	(32,911)	(29,313)
Inventories – net	**363,539**	**346,860**

In the financial year 2019, write-downs of inventories recognized as an expense amounted to thous. EUR 9,876 (2018: thous. EUR 8,249), the reversal of write-downs as a result of changes in prices of inventories recognized as income amounted to thous. EUR 464 (2018: thous. EUR 1,450), both under cost of goods sold. The carrying amount of inventories carried at net realizable value amounted to thous. EUR 21,845 (December 31, 2018: thous. EUR 20,654).

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)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Cost of materials	1,329,150	1,264,210
Cost of purchased services	32,968	39,753
Total	**1,362,118**	**1,303,963**

11 — TRADE RECEIVABLES

Receivables are accounted for at amortized cost, i.e. at par value less allowances.

(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018
Trade receivables	420,124	368,918
Allowances	(1,391)	(1,387)
Trade receivables – net	**418,733**	**367,531**

As of December 31, 2019 and December 31, 2018, the aging of trade receivables overdue but not impaired is as follows:

(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018
Up to 30 days overdue	6,883	5,779
31 – 60 days overdue	4,093	2,386
61 – 365 days overdue	2,993	2,614
More than 365 days overdue	500	102
Total of trade receivables overdue but not impaired	**14,469**	**10,881**

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)	2019	2018
Allowances at the beginning of the year	**1,387**	**1,192**
Effect of exchange rate changes	17	(14)
Changes in consolidated companies	676	0
Utilization	(633)	(49)
Reversal	(370)	(322)
Increase	314	580
Allowances at the end of the year	**1,391**	**1,387**

12 — PREPAID EXPENSES AND OTHER CURRENT ASSETS

Prepaid expenses and other current assets are as follows:

(in thousands of EUR)	Dec. 31, 2019	Dec. 31, 2018
Value-added tax receivables	19,873	22,614
Other tax receivables	11,819	17,898
Prepaid expenses	10,198	10,000
Assets held for sale	3,739	3,553
Payments on account	2,235	7,405
Other receivables and other assets	15,638	14,532
Prepaid expenses and other current assets	**63,502**	**76,002**
Thereof financial assets	9,922	9,836
Thereof non-financial assets	53,580	66,166

13 — EQUITY

a — 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.

The Management Board was authorized by the 25th Ordinary Shareholders' Meeting to repurchase own shares up of to 10 % of the Group's share capital, which remains valid until October 24, 2021. As of December 31, 2019, the Management Board has made no use of this authorization.

b — 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, 2019, the distributable unappropriated retained earnings amounted to thous. EUR 75,000 (December 31, 2018: thous. EUR 65,000).

Extract from the individual financial statements of Mayr-Melnhof Karton AG

(in thousands of EUR)	2019	2018
Unappropriated retained earnings at Jan. 1	**65,000**	**66,000**
Net profit of the Company for the year ended Dec. 31	69,602	56,945
Changes in reserves	4,398	4,055
Dividend paid	(64,000)	(62,000)
Unappropriated retained earnings at Dec. 31	**75,000**	**65,000**

For the year ended December 31, 2019, the Management Board has proposed to the Supervisory Board and subsequently to the Shareholders' Meeting a dividend of EUR 3.60 per voting share after EUR 3.20 for 2018, resulting in a dividend of thous. EUR 72,000 as of the balance sheet date of 2019. The dividend for 2018, amounting to thous. EUR 64,000, was paid out according to schedule on May 8, 2019 (see consolidated statement of changes in equity).

c — 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.

	Dec. 31, 2019		Dec. 31, 2018	
(in thousands EUR)	**MM Karton**	**MM Packaging**	**MM Karton**	**MM Packaging**
Non-current assets	592	54,723	377	36,712
Current assets	3,210	66,836	3,131	29,547
Non-current liabilities	848	28,683	569	22,059
Current liabilities	1,145	33,813	1,163	12,121
Net assets	**1,809**	**59,063**	**1,776**	**32,079**
Carrying amount of the non-controlling (minority) interests	**704**	**4,571**	**715**	**1,449**

	Year ended Dec. 31, 2019		Year ended Dec. 31, 2018	
Sales	6,027	68,982	5,802	41,654
Profit for the year	1,190	6,695	1,121	6,880
Thereof attributable to non-controlling (minority) interests	**364**	**112**	**375**	**120**
Total comprehensive income	1,496	6,540	1,504	7,553
Thereof attributable to non-controlling (minority) interests	**346**	**108**	**379**	**169**
Dividend paid to non-controlling (minority) interests	357	690	297	449
Net change in cash and cash equivalents	**0**	**16,996**	**0**	**5,600**

d — 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 foreign currency translation as well as actuarial gains and losses arising from the defined benefit pension and severance obligations, the latter after considering deferred income taxes.

In 2019, profit and loss recognized in other comprehensive income consisted of foreign currency translations with a positive amount of thous. EUR 9,199 (2018: negative amount of thous. EUR 34,399) as well as actuarial losses in the amount of thous. EUR 19,843 (2018: thous. EUR 1,280). Thereon deferred taxes in the amount of thous. EUR 5,309 (2018: thous. EUR 429), were recognized for the financial year 2019.

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, 2019	Dec. 31, 2018
Non-current interest-bearing financial liabilities	187,226	176,539
Non-current lease liabilities	45,314	809
Non-current financial liabilities	**232,540**	**177,348**
Current interest-bearing financial liabilities	104,494	33,842
Current lease liabilities	8,349	492
Current financial liabilities	**112,843**	**34,334**
Financial liabilities	**345,383**	**211,682**

a — Interest-bearing financial liabilities

As of December 31, 2019 and December 31, 2018, 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, 2019
0.789 % EUR loan(s) due 2020	55,688
9.450 % JOD loan(s) due 2020	1,573
6.524 % CNY loan(s) due 2020	1,235
0.750 % EUR loan(s) due 2021	12,693
6.524 % CNY loan(s) due 2021	1,235
0.691 % EUR loan(s) due 2022	20,000
6.524 % CNY loan(s) due 2022	1,235
6.524 % CNY loan(s) due 2023	2,063
1.846 % EUR loan(s) due 2024	80,000
0.691 % EUR loan(s) due 2025	20,000
2.673 % EUR loan(s) due 2026	50,000
Used loan facilities	45,998
Interest-bearing financial liabilities	**291,720**
Thereof non-current interest-bearing financial liabilities	187,226
Thereof current interest-bearing financial liabilities	104,494

(in thousands of EUR)	**Dec. 31, 2018**
0.697 % EUR loan(s) due 2019	30,000
8.333 % JOD loan(s) due 2019	924
2.500 % EUR loan(s) due 2020	5,000
8.333 % JOD loan(s) due 2020	923
8.500 % JOD loan(s) due 2021	616
0.781 % EUR loan(s) due 2022	20,000
1.869 % EUR loan(s) due 2024	80,000
0.781 % EUR loan(s) due 2025	20,000
2.673 % EUR loan(s) due 2026	50,000
Used loan facilities	2,918
Interest-bearing financial liabilities	**210,381**
Thereof non-current interest-bearing financial liabilities	176,539
Thereof current interest-bearing financial liabilities	33,842

As of December 31, 2019, the weighted average interest rate for these financial liabilities was 1.610 % (December 31, 2018: 1.869 %).

As of December 31, 2019, the Group had available current interest-bearing loan facilities in the amount of thous. EUR 45,998 (December 31, 2018: thous. EUR 2,918), of which thous. EUR 45,998 (December 31, 2018: thous. EUR 2,918) were used as of the balance sheet date. As of December 31, 2019, the weighted average interest rate of these current loans, mainly used by subsidiaries in Austria, was 1.239 % (December 31, 2018: used by subsidiaries outside the Euro participating countries 8.500 %). These loans are subject to common banking terms and conditions.

Of the interest-bearing financial liabilities, loans in the amount of thous. EUR 141,171 (December 31, 2018: thous. EUR 110,000) are subject to a fixed interest rate, whose fair value amounts to thous. EUR 149,023 as of December 31, 2019 (December 31, 2018: thous. EUR 113,203). 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, 2019, the Group had unused non-current credit lines available in the amount of thous. EUR 400,000 (December 31, 2018: thous. EUR 390,000).

As of December 31, 2019, the current revolving bank credits in an amount of thous. EUR 37,980 (December 31, 2018: thous. EUR 10,000) are included in the interest-bearing financial liabilities.

b — Leases

The Group is predominantly the lessee in lease transactions. Until the financial year 2018, leases of property, plant and equipment were classified as either finance leases or operating leases. As of January 1, 2019, leases have been recognized as right-of-use asset and a corresponding 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. All contracts which were identified as leases according to IAS 17 as of December 31, 2018 are taken over into IFRS 16.

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 associated with short-term leases of equipment and vehicles and all leases of low-value assets are not recognized on 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 property and equipment leases. The Group has assessed these and considered them accordingly. These contract conditions are used to maximise 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, 2019 is presented below:

(in thousands of EUR)	**Dec. 31, 2019**	**Jan. 1, 2019**
Non-current lease liabilities	45,314	47,061
Current lease liabilities	8,349	7,195
Lease liabilities	**53,663**	**54,256**

Total cash outflows for leases in 2019 were thous. EUR 9,833.

Expenses related to payments not included in the measurement of the lease liability are as follows:

(in thousands of EUR)	Year ended Dec. 31, 2019
Expenses related to variable lease payments	5,637
Expenses related to short-term leases	1,329
Expenses related to leases of low value assets	399

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.

a — Development of provisions for non-current liabilities and charges

In 2019, provisions for non-current liabilities and charges developed as follows:

(in thousands of EUR)	Pensions	Severance	Anniversary bonuses	Pre-retirement programs	Other	**Total**
Balance at Jan. 1, 2019	**72,926**	**31,550**	**10,646**	**359**	**428**	**115,909**
Effect of exchange rate changes	698	(133)	0	0	0	565
Changes in consolidated companies	367	8,474	2,400	0	0	11,241
Utilization	(4,248)	(3,319)	(747)	(286)	(4)	(8,604)
Increase	3,849	2,880	2,634	503	2,483	12,349
IAS 19 remeasurements through other comprehensive income	14,786	4,661	0	0	0	19,447
Benefit payments from and contributions to plan assets	(3,368)	0	0	0	0	(3,368)
Balance at Dec. 31, 2019	**85,010**	**44,113**	**14,933**	**576**	**2,907**	**147,539**

In 2018, provisions for non-current liabilities and charges developed as follows:

(in thousands of EUR)	Pensions	Severance	Anniversary bonuses	Pre-retirement programs	Other	**Total**
Balance at Jan. 1, 2018	**77,634**	**33,122**	**9,608**	**562**	**429**	**121,355**
Effect of exchange rate changes	(104)	(508)	0	0	0	(612)
Utilization	(4,132)	(2,728)	(509)	(397)	(4)	(7,770)
Increase	3,607	2,264	1,547	194	3	7,615
IAS 19 remeasurements through other comprehensive income	1,980	(704)	0	0	0	1,276
Benefit payments from and contributions to plan assets	(6,059)	104	0	0	0	(5,955)
Balance at Dec. 31, 2018	**72,926**	**31,550**	**10,646**	**359**	**428**	**115,909**

As of December 31, 2019, securities with a fair value of thous. EUR 1,341 (December 31, 2018: thous. EUR 1,303) have been provided as security for provisions for pre-retirement programs within the scope of the respective legal commitments. At December 31, 2019 and December 31, 2018, those securities were deducted as plan assets from the underlying obligations.

b — 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 6,008 in the financial year 2019 (2018: thous. EUR 5,168).

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 fulfillment 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:

	Dec. 31, 2019		**Dec. 31, 2018**	
(in %)	**Pensions**	**Severance**	**Pensions**	**Severance**
Discount rate	1.18 %	1.23 %	2.10 %	2.64 %
Salary growth rate	2.53 %	2.66 %	2.50 %	3.03 %
Pension growth rate	2.16 %	-	2.26 %	-

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" (2018: AVÖ 2018-P "Angestellte" or "Gemischt"), for Germany: Heubeck-Richttafeln 2018 G (2018: 2018 G), for Great Britain: Post Retirement and Pre Retirement: S3PA CMI_2018_M/F [1.25 %] (2018: S2PA CMI_2017_M/F [1.25 %]). As a rule, the retirement age corresponds to the respective country-specific legal regulations.

The following expenses were recorded for defined benefit pension and severance commitments:

	2019		**2018**	
(in thousands of EUR)	**Pensions**	**Severance**	**Pensions**	**Severance**
Service cost	1,557	1,939	1,395	1,599
Net interest on the net defined benefit liability	1,430	964	1,331	722
Past service costs	0	153	0	(57)
Effects due to plan changes	727	(176)	749	0
Administration costs	135	0	132	0
Net periodic benefit cost	**3,849**	**2,880**	**3,607**	**2,264**

The defined benefit obligation and plan assets developed as follows:

	2019		2018	
(in thousands of EUR)	Pensions	Severance	Pensions	Severance
Defined benefit obligation at the beginning of the year	**126,100**	**31,550**	**125,507**	**33,223**
Effect of exchange rate changes	1,983	(133)	(294)	(508)
Changes in consolidated companies	2,515	8,474	0	0
Service cost	1,557	1,939	1,395	1,599
Interest cost	2,676	964	2,328	724
Past service costs	0	153	0	(57)
Remeasurements	15,577	4,661	547	(703)
Thereof (gains)/losses from change in demographic assumptions (e.g. life expectancy, retirement age)	*(979)*	*(479)*	*1,658*	*(579)*
Thereof (gains)/losses from change in financial assumptions (e.g. discount rate, salary growth rate, pension growth rate)	*17,470*	*4,452*	*(4,388)*	*(999)*
Thereof experience (gains)/losses (deviation between actual value and planned value)	*(914)*	*688*	*3,277*	*875*
Benefit payments	(4,248)	(3,319)	(4,132)	(2,728)
Effects due to plan changes	727	(176)	749	0
Defined benefit obligation at the end of the year	**146,887**	**44,113**	**126,100**	**31,550**

	2019		2018	
(in thousands of EUR)	Pensions	Severance	Pensions	Severance
Fair value of plan assets at the beginning of the year	**53,174**	**0**	**47,873**	**101**
Effect of exchange rate changes	1,285	0	(190)	0
Changes in consolidated companies	2,148	0	0	0
Interest income	1,246	0	997	2
Administrative expense	(135)	0	(132)	0
Remeasurements	791	0	(1,433)	1
Thereof return on plan assets excluding amounts included in interest income - net	*791*	*0*	*(1,433)*	*1*
Employer contributions	5,024	0	7,583	0
Benefit payments from plan	(1,656)	0	(1,524)	(104)
Fair value of plan assets at the end of the year	**61,877**	**0**	**53,174**	**0**

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 2019 and 2018 is represented as follows:

	2019							
	MM Karton				MM Packaging			
(in thousands of EUR)	Germany	Austria	Other countries[1)]	**Total**	Germany	Austria	Other countries	**Total**
Net periodic benefit cost	535	1,730	1,315	3,580	997	1,047	1,105	3,149
Defined benefit obligation at the end of the year	26,195	52,049	42,947	121,191	37,211	23,979	8,619	69,809
Fair value of plan assets at the end of the year	920	29,245	27,321	57,486	717	3,280	394	4,391

1) This primarily includes the pension plan in Great Britain.

	2018							
	MM Karton				MM Packaging			
(in thousands of EUR)	Germany	Austria	Other countries[1)]	**Total**	Germany	Austria	Other countries	**Total**
Net periodic benefit cost	517	1,583	1,198	3,298	964	644	965	2,573
Defined benefit obligation at the end of the year	22,696	44,402	37,017	104,115	32,072	14,410	7,053	53,535
Fair value of plan assets at the end of the year	937	25,791	22,753	49,481	657	3,036	0	3,693

1) This primarily includes the pension plan in Great Britain.

The employers' contributions to plan assets for the year 2020 are expected to amount to thous. EUR 4,589. This includes a contribution for increasing plan assets and for other expenses in Great Britain in the amount of thous. EUR 882.

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, 2019 and of December 31, 2018:

(in thousands of EUR)	Dec. 31, 2019	in %	Dec. 31, 2018	in %
Equity instruments:				
– developed markets	8,497		6,094	
– emerging markets	1,409		1,187	
Total	**9,906**	**16 %**	**7,281**	**14 %**
Debt instruments:				
– Corporate bonds	13,855		11,956	
– Government bonds	782		521	
Total	**14,637**	**24 %**	**12,477**	**23 %**
Qualifying insurance policy pledged to beneficiaries	35,822	58 %	30,422	57 %
Money market investment/Bank deposit	1,469	2 %	2,995	6 %
Total	**61,834**	**100 %**	**53,175**	**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 a rating of "BBB".

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:

	Dec. 31, 2019		Dec. 31, 2018	
(in thousands of EUR)	**Pensions**	**Severance**	**Pensions**	**Severance**
Defined benefit obligation	**146,887**	**44,113**	**126,100**	**31,550**
Thereof obligations covered by provisions	*61,740*	*44,113*	*53,927*	*30,034*
Thereof obligations covered by funds	*85,147*	*0*	*72,173*	*1,516*
Less fair value of plan assets	(61,877)	0	(53,174)	0
Net liability recognized as provision for non-current liabilities and charges	**85,010**	**44,113**	**72,926**	**31,550**

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 2019		
(in %)	**Change in assumption**	**Increase in assumption**	**Decrease in assumption**
Discount rate	0.25 %	Decrease by 3.6 %	Increase by 3.8 %
Salary growth rate	0.25 %	Increase by 0.9 %	Decrease by 0.8 %
Pension growth rate	0.25 %	Increase by 2.5 %	Decrease by 2.3 %

		Increase by one year in assumption	
Retirement age		Decrease by 0.8 %	
Life expectancy		Increase by 3.0 %	

	Impact on the defined benefit obligation 2018		
(in %)	**Change in assumption**	**Increase in assumption**	**Decrease in assumption**
Discount rate	0.25 %	Decrease by 3.5 %	Increase by 3.7 %
Salary growth rate	0.25 %	Increase by 0.8 %	Decrease by 0.8 %
Pension growth rate	0.25 %	Increase by 2.3 %	Decrease by 2.6 %

		Increase by one year in assumption	
Retirement age		Decrease by 1.2 %	
Life expectancy		Increase by 2.7 %	

The weighted average duration of the defined benefit obligation is 14.8 years as of the balance sheet date (December 31, 2018: 14.6 years).

The expected maturity analysis of defined benefit obligations for the next ten years as of December 31, 2019 and December 31, 2018 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, 2019					
Defined benefit plans	5,256	9,620	21,782	44,276	80,934
As of Dec. 31, 2018					
Defined benefit plans	4,591	4,806	22,389	38,398	70,184

16 — TRADE LIABILITIES

Current liabilities are, as a rule, stated at cost which presents the consideration to be paid.

Trade liabilities amounting to thous. EUR 219,562 (December 31, 2018: thous. EUR 205,114) as of December 31, 2019 comprise liabilities from acquisition of property, plant and equipment, and intangible assets amounting to thous. EUR 19,398 (December 31, 2018: thous. EUR 9,572) which are taken into consideration by the cash flow from investing activities as non-cash transactions as well as advances from customers in an amount of thous. EUR 1,100 (December 31, 2018: thous. EUR 796).

17 — DEFERRED INCOME AND OTHER CURRENT LIABILITIES

Accruals comprise the 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, 2019**	**Dec. 31, 2018**
Obligations for personnel and social costs	82,158	74,254
Other tax liabilities	13,290	10,335
Liabilities for customer rebates and bonuses	10,782	10,823
Deferred income	3,133	2,678
Other liabilities	13,430	9,891
Deferred income and other current liabilities	**122,793**	**107,981**
Thereof financial liabilities	11,984	8,620
Thereof non-financial liabilities	110,809	99,361

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.

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, when it is probable that it will be settled and when 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 end of the reporting period. If the interest effect is considerable, the provision is discounted with a market interest rate.

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 under liabilities if the probability of a claim on assets is negligible within a single obligation included in this group.

In the financial year 2019, provisions for current liabilities and charges developed as follows:

(in thousands of EUR)	Sales	Other provisions	**Total**
Balance at Jan. 1, 2019	**3,935**	**7,954**	**11,889**
Effect of exchange rate changes	(7)	4	(3)
Changes in consolidated companies	412	192	604
Utilization	(1,766)	(2,785)	(4,551)
Reversal	(317)	(258)	(575)
Increase	2,106	2,720	4,826
Balance at Dec. 31, 2019	**4,363**	**7,827**	**12,190**

In the financial year 2018, provisions for current liabilities and charges developed as follows:

(in thousands of EUR)	Sales	Other provisions	**Total**
Balance at Jan. 1, 2018	**4,169**	**10,293**	**14,462**
Effect of exchange rate changes	(120)	(19)	(139)
Changes in consolidated companies	0	(20)	(20)
Utilization	(1,834)	(3,729)	(5,563)
Reversal	(147)	(692)	(839)
Increase	1,867	2,121	3,988
Balance at Dec. 31, 2018	**3,935**	**7,954**	**11,889**

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 by the calculation.

The position "Other provisions" primarily comprises provisions for litigations and legal costs, environmental matters as well as other taxes.

19 — SEGMENT REPORTING INFORMATION

Mayr-Melnhof Karton AG and its subsidiaries operate in two operating areas, the production of cartonboard (division MM Karton) 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 Karton manufactures and distributes numerous grades of cartonboard, focusing in particular on coated cartonboard made primarily from recycled fibers.

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, pharmaceutical packaging, and high-grade confectionary).

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.

Revenues 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 Mayr-Melnhof Group and include income from the sale of numerous grades of cartonboard and folding cartons. The disaggregation 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:

	2019			
(in thousands of EUR)	MM Karton	MM Packaging	Eliminations	**Consolidated**
Sales to external customers	967,219	1,577,190	0	2,544,409
Intersegment sales	111,078	765	(111,843)	0
Total sales	**1,078,297**	**1,577,955**	**(111,843)**	**2,544,409**
Operating profit	110,436	144,835	0	255,271
Financial income	421	1,363	(319)	1,465
Financial expenses	(3,079)	(5,634)	319	(8,394)
Profit before tax	106,317	144,812	0	251,129
Income tax expense	(27,449)	(33,461)	0	(60,910)
Profit for the year	78,868	111,351	0	190,219
Capital expenditures	84,757	66,243	0	151,000
Depreciation and amortization	(51,750)	(82,579)	0	(134,329)
Segment assets	1,195,247	1,486,206	(258,800)	2,422,653
Segment liabilities	380,896	792,248	(258,800)	914,344
Employees per segment as of December 31	2,516	7,498		10,014

	2018			
(in thousands of EUR)	MM Karton	MM Packaging	Eliminations	**Consolidated**
Sales to external customers	954,127	1,383,531	0	2,337,658
Intersegment sales	108,043	683	(108,726)	0
Total sales	**1,062,170**	**1,384,214**	**(108,726)**	**2,337,658**
Operating profit	96,386	120,696	0	217,082
Financial income	367	1,252	(293)	1,326
Financial expenses	(1,960)	(4,411)	293	(6,078)
Profit before tax	94,889	123,023	0	217,912
Income tax expense	(22,787)	(30,960)	0	(53,747)
Profit for the year	72,102	92,063	0	164,165
Capital expenditures	70,564	53,840	0	124,404
Depreciation and amortization	(45,306)	(61,972)	0	(107,278)
Segment assets	1,091,208	1,051,896	(77,399)	2,065,705
Segment liabilities	318,632	439,713	(77,399)	680,946
Employees per segment as of December 31	2,501	6,944		9,445

The assets, liabilities, financial position and profit or loss of MM Packaging division in the financial year 2019 are particularly affected by the inclusion of the Tann-Group.

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:

	2019			2018		
(in thousands of EUR)	**Net sales**	**Non-current assets**	**Capital expenditures**	**Net sales**	**Non-current assets**	**Capital expenditures**
Austria	52,686	511,304	34,200	51,439	203,075	29,294
Germany	435,898	312,984	51,426	444,529	266,720	39,165
France	273,151	79,128	8,330	284,138	78,644	4,398
Great Britain	222,443	14,239	6,700	207,864	4,151	1,711
Other Western European countries	405,505	75,311	11,042	402,766	69,218	9,279
Eastern Europe (including Turkey)	726,173	244,263	27,558	629,980	226,006	32,490
Asia and MENA	258,885	112,165	8,085	168,829	84,150	6,798
The Americas	134,515	44,073	3,659	114,887	43,511	1,269
Other	35,153	0	0	33,226	0	0
Consolidated total	**2,544,409**	**1,393,467**	**151,000**	**2,337,658**	**975,475**	**124,404**

Non-current assets and capital expenditures comprise property, plant and equipment as well as intangible assets including goodwill (see note 6) as well as payments on account of property, plant and equipment (see note 12).

20 — OTHER OPERATING INCOME

(in thousands of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**
Insurance claims	2,982	3,307
Rental income	1,409	1,147
Gains and losses from disposal of property, plant and equipment, and intangible assets – net	623	202
Result of deconsolidations[1]	0	2,882
Other income – net	6,868	5,186
Other operating income	**11,882**	**12,724**

[1] see note 5

Other income – net includes income from compensation for damages in an amount of thous. EUR 2,692 (2018: thous. EUR 1,917) and diverse other negligible income, such as canteen income.

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 2019 and 2018:

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Cost of materials and purchased services	1,362,118	1,303,963
Personnel expenses	496,774	444,937
Depreciation and amortization	134,329	107,278
Other expenses	307,799	277,122
Total cost of sales, selling and distribution, administrative and other operating expenses	**2,301,020**	**2,133,300**

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Cost of materials and purchased services	1,362,118	1,303,963
Personnel expenses	350,236	312,979
Depreciation and amortization	112,502	95,994
Other expenses	92,668	77,123
Cost of sales	**1,917,524**	**1,790,059**

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Personnel expenses	146,538	131,958
Depreciation and amortization	21,827	11,284
Other expenses	215,131	199,999
Total selling and distribution, administrative and other operating expenses	**383,496**	**343,241**

22 — PERSONNEL EXPENSES

Personnel expenses from all Group areas can be broken down as follows:

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Gross wages	222,030	197,691
Gross salaries	167,879	151,148
Severance expenses	3,928	5,555
Pension expenses	7,577	6,573
Expenses for statutory social security as well as payroll-related taxes and compulsory contributions	82,473	73,581
Other welfare expenses	12,887	10,389
Total	**496,774**	**444,937**

The average number of employees is as follows:

(Number of persons)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Factory workers	7,857	7,509
Office staff	2,315	2,138
Total	**10,172**	**9,647**

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)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Salaries and other short-term employee benefits (incl. remuneration of the Supervisory Board)	10,698	9,492
Post-employment benefits	6,309	4,464
Total	**17,007**	**13,956**

The remuneration of the members of the Management Board is as follows:

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Fixed remuneration	2,756	2,668
Variable remuneration	7,445	6,349
Total	**10,201**	**9,017**

The remuneration of the members of the Supervisory Board elected by the shareholders for the financial year 2019 amounted to thous. EUR 497 (2018: thous. EUR 475).

23 — EXPENSES FOR THE GROUP AUDITOR

The 25th Ordinary Shareholders' Meeting on April 24, 2019 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 2019, expenses for services rendered by PwC Wirtschaftsprüfung GmbH in Austria amounted to thous. EUR 397 (2018: thous. EUR 283), of which thous. EUR 376 (2018: thous. EUR 281) were related to auditing and other assurance services and thous. EUR 21 (2018: thous. EUR 2) were related to other services. The previous year was audited by Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft.

24 — RESEARCH AND DEVELOPMENT EXPENSES

Research and development costs are recognized as expenses as incurred. Neither as of December 31, 2019 nor as of December 31, 2018 have any development costs been capitalized.

Research and development costs recognized as expenses in the income statement amounted to thous. EUR 2,997 in the financial year 2019 (2018: thous. EUR 2,986).

25 — FINANCIAL INCOME

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Interest from bank deposits	1,359	1,233
Other financial income	106	93
Total financial income	**1,465**	**1,326**

26 — FINANCIAL EXPENSES

(in thousands of EUR)	Year ended Dec. 31, 2019	Year ended Dec. 31, 2018
Interest expense related to financial liabilities	(5,301)	(4,729)
Interest expense on lease liabilities	(1,673)	(61)
Other financial expenses	(1,420)	(1,288)
Total financial expenses	**(8,394)**	**(6,078)**

Other financial expenses comprise commitment fees for unused credit lines.

27 — OTHER FINANCIAL RESULT – NET

(in thousands of EUR)	**Year ended Dec. 31, 2019**	**Year ended Dec. 31, 2018**
Foreign currency exchange rate gains (losses) – net	5,226	6,568
Net interest cost from benefit obligation	(2,605)	(2,204)
Dividend income	283	422
Result from investments accounted for using the equity method	(294)	(347)
Gains from disposal of other investments	0	1,143
Other financial income	177	0
Other financial result – net	**2,787**	**5,582**

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, 2019 nor as of December 31, 2018, 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.

	Year ended Dec. 31, 2019	**Year ended Dec. 31, 2018**
Profit attributable to ordinary shareholders of the parent company (in thousands of EUR)	189,743	163,670
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)	9.49	8.18

As in the previous year, the number of shares issued as of December 31, 2019 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 the 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 the results of its operations, 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 legislations 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. The Group records an accrual for environmental matters when an expense is probable and may be reasonably estimated. For the assessment of the amount of accruals, estimates have to be used to a certain extent. It is possible that the final assessment of some of these matters may require the Group to make expenditures in excess of the amounts currently provided for. The Management believes, however, that such additional amounts will not have a material effect on the Group's financial position or results of operations.

Expenses related to environmental matters were not material for the years ended December 31, 2019 and 2018.

Other contingent liabilities

At December 31, 2019, purchase obligations for fixed assets regarding planned capital expenditures maturing within one year amounted to thous. EUR 36,059 (December 31, 2018: thous. EUR 47,103).

30 — DISCLOSURES ON TRANSACTIONS WITH RELATED PARTIES

Raw materials for the production of cartonboard amounting to thous. EUR 7,268 were purchased from other related companies in 2019 (2018: thous. EUR 7,677). As of December 31, 2019, trade liabilities with other related companies amounted to thous. EUR 1,100 (December 31, 2018: thous. EUR 954).

In 2019, sales from transactions with associated companies amounted to thous. EUR 1,549 (2018: thous. EUR 607). As of December 31, 2019, trade receivables with associated companies amounted to thous. EUR 468 (December 31, 2018: thous. EUR 148), while trade liabilities with associated companies amounted to thous. EUR 311 (December 31, 2018: thous. EUR 160).

Raw materials amounting to thous. EUR 409 were purchased from joint ventures in 2019 (2018: thous. EUR 0). As of December 31, 2019, trade liabilities with joint ventures amounted to thous. EUR 297 (December 31, 2018: thous. EUR 0).

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.

For information about 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, 2019	Dec. 31, 2018
Fixed deposits	24,447	19,680
Unrestricted bank deposits and cash	102,292	241,271
Other restricted bank deposits	68	31
Cash and cash equivalents	**126,807**	**260,982**

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 went up from thous. EUR 250,104 to thous. EUR 331,421. The higher cash-effective result, which contrasted with higher income tax payments, substantially contributed to this increase.

In 2018, other adjustments in net cash from profit result in particular from the changes in long-term provisions and effects from exchange rate changes.

Cash flow from investing activities changed from thous. EUR -119,034 to thous. EUR -380,554. This difference particularly results from the purchase price payment (net of cash acquired – see note 5) for the acquisition of the Tann-Group as well as an increase of payments for the acquisition of property, plant and equipment and intangible assets.

Cash flow from financing activities changed from thous. EUR -69,266 to thous. EUR -87,141. The use of short-term bank credit facilities to finance the acquisition was contrasted by loan repayments and the dividend payment for the financial year 2018.

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, 2019	**177,348**	**34,334**	**211,682**
Issuances of financial liabilities	870	188,149	189,019
Repayments of financial liabilities	(943)	(202,027)	(202,970)
Total cash changes	**(73)**	**(13,878)**	**(13,951)**
Acquisition of subsidiaries	32,040	58,575	90,615
Effect of exchange rates	127	77	204
Initial application of IFRS 16	46,155	6,800	52,955
Other non-cash changes	(23,057)	26,935	3,878
Total non-cash changes	**55,265**	**92,387**	**147,652**
Balance at Dec. 31, 2019	**232,540**	**112,843**	**345,383**

Other non-cash changes include additions to lease liabilities which contrasted with the acquisition of assets at the same amount.

(in thousands of EUR)	Non-current interest- bearing financial liabilities	Current interest-bearing financial liabilities	**Total**
Balance at Jan. 1, 2018	**191,890**	**20,578**	**212,468**
Issuances of financial liabilities	5,746	1,495	7,241
Repayments of financial liabilities	(31)	(7,776)	(7,807)
Total cash changes	**5,715**	**(6,281)**	**(566)**
Effect of exchange rates	203	(423)	(220)
Other non-cash changes	(20,460)	20,460	0
Total non-cash changes	**(20,257)**	**20,037**	**(220)**
Balance at Dec. 31, 2018	**177,348**	**34,334**	**211,682**

32 — SIGNIFICANT SUBSEQUENT EVENTS

As of January 14, 2020, the Company announced that Peter Oswald will take over the function of chairman of the Management Board from Wilhem Hörmanseder as of May 1, 2020. Since Mr. Hörmanseder has been appointed to the Management Board until June 30, 2021, provisions for existing claims of Mr. Hörmanseder as of his retirement will be created by the Group depending on any negotiations in the first quarter of 2020.

Additionally, 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

2019					2018				
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 KARTON					**MM KARTON**				
Baiersbronn Frischfaser Karton GmbH, Baiersbronn (DEU)	EUR	2,050	100.00 %	FC[1]	Baiersbronn Frischfaser Karton GmbH, Baiersbronn (DEU)	EUR	2,050	100.00 %	FC[1]
CartPrint AG i. l., Vaduz (LIE)	EUR	50	100.00 %	FC[1]	CartPrint AG, Vaduz (LIE)	EUR	50	100.00 %	FC[1]
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]
FS-Karton GmbH, Baiersbronn (DEU)	EUR	7,500	100.00 %	FC[1]	FS-Karton GmbH, Baiersbronn (DEU)	EUR	7,500	100.00 %	FC[1]
Industriewater Eerbeek B.V., Eerbeek (NLD)	EUR	143	37.50 %	NE[2]	Industriewater Eerbeek B.V., Eerbeek (NLD)	EUR	143	37.50 %	NE[2]
Kolicevo Karton Proizvodnja kartona, d.o.o., Domzale (SVN)	EUR	12,828	100.00 %	FC[1]	Kolicevo Karton Proizvodnja kartona, d.o.o., Domzale (SVN)	EUR	12,828	100.00 %	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]
Mayr-Melnhof Cartonboard International GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC[1]	Mayr-Melnhof Cartonboard International GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC[1]
Mayr-Melnhof Eerbeek B.V., Eerbeek (NLD)	EUR	7,300	100.00 %	FC[1]	Mayr-Melnhof Eerbeek B.V., Eerbeek (NLD)	EUR	7,300	100.00 %	FC[1]
Mayr-Melnhof Gernsbach GmbH, Gernsbach (DEU)	EUR	9,205	100.00 %	FC[1]	Mayr-Melnhof Gernsbach GmbH, Gernsbach (DEU)	EUR	9,205	100.00 %	FC[1]
Mayr-Melnhof Karton Gesellschaft m.b.H., Frohnleiten (AUT)	EUR	7,500	100.00 %	FC[1]	Mayr-Melnhof Karton Gesellschaft m.b.H., Frohnleiten (AUT)	EUR	7,500	100.00 %	FC[1]
MM Karton FollaCell AS, Verran (NOR)	NOK	10,000	100.00 %	FC[1]	MM Karton FollaCell AS, Verran (NOR)	NOK	10,000	100.00 %	FC[1]
MM Karton Turkey Ticaret Limited Sirketi, Istanbul (TUR)	TRY	10	100.00 %	FC[1]	MM Karton Turkey Ticaret Limited Sirketi, Istanbul (TUR)	TRY	10	100.00 %	FC[1]
Stort Doonweg B.V., Eerbeek (NLD)	EUR	18	50.00 %	NE[2]	Stort Doonweg B.V., Eerbeek (NLD)	EUR	18	50.00 %	NE[2]

2019				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
Trading companies & sales offices of MM Karton				
Austria Cartón S.A., Barcelona (ESP)	EUR	60	75.00 %	FC[1]
Keminer Remmers Spiehs Kartonhandels GmbH, Gernsbach (DEU)	EUR	1,280	100.00 %	FC[1]
Mayr-Melnhof Cartonboard UK Limited, Theale-Reading (GBR)	GBP	1,000	100.00 %	FC[1]
Mayr-Melnhof France SARL, Paris (FRA)	EUR	8	100.00 %	FC[1]
Mayr-Melnhof Italia S.R.L., Milan (ITA)	EUR	51	75.00 %	FC[1]
Mayr-Melnhof Karton Polska Sp. z o.o., Poznan (POL)	PLN	50	100.00 %	FC[1]
Mayr-Melnhof Mediterra SARL, Tunis (TUN)	TND	80	100.00 %	FC[1]
Mayr-Melnhof Benelux B.V., Amstelveen (NLD)	EUR	91	100.00 %	FC[1]
Mayr-Melnhof & Wilfried Heinzel Tehran Co., Tehran (IRN)	IRR	100,000	36.00 %	NE[2]
MM Guang Zhou Yue Ran Paper Co., Ltd., Guangzhou (CHN)	CNY	1,500	100.00 %	NC[4]
MM Karton Bulgaria EOOD, Sofia (BGR)	BGN	5	100.00 %	FC[1]
MM Karton Praha s.r.o., Prague (CZE)	CZK	820	100.00 %	FC[1]
MM Karton Russia LLC, Moscow (RUS)	RUB	14,290	100.00 %	FC[1]
MM Kartonvertrieb GmbH, Neuss (DEU)	EUR	26	100.00 %	FC[1]
MM Prodaja Kartona, trgovina s kartonom d.o.o., Domzale (SVN)	EUR	30	100.00 %	FC[1]
Varsity Packaging Limited, Theale-Reading (GBR)	GBP	300	100.00 %	FC[1]

2018				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
Trading companies & sales offices of MM Karton				
Austria Cartón S.A., Barcelona (ESP)	EUR	60	75.00 %	FC[1]
Keminer Remmers Spiehs Kartonhandels GmbH, Gernsbach (DEU)	EUR	1,280	100.00 %	FC[1]
Mayr-Melnhof Cartonboard UK Limited, Theale-Reading (GBR)	GBP	1,000	100.00 %	FC[1]
Mayr-Melnhof France SARL, Paris (FRA)	EUR	8	100.00 %	FC[1]
Mayr-Melnhof Italia S.R.L., Milan (ITA)	EUR	51	75.00 %	FC[1]
Mayr-Melnhof Karton Polska Sp. z o.o., Poznan (POL)	PLN	50	100.00 %	FC[1]
Mayr-Melnhof Mediterra SARL, Tunis (TUN)	TND	80	100.00 %	FC[1]
Mayr-Melnhof Benelux B.V., Amstelveen (NLD)	EUR	91	100.00 %	FC[1]
Mayr-Melnhof & Wilfried Heinzel Tehran Co., Tehran (IRN)	IRR	100,000	36.00 %	NE[2]
MM Guang Zhou Yue Ran Paper Co., Ltd., Guangzhou (CHN)	CNY	1,500	100.00 %	NC[4]
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MM Karton Praha s.r.o., Prague (CZE)	CZK	820	100.00 %	FC[1]
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MM Prodaja Kartona, trgovina s kartonom d.o.o., Domzale (SVN)	EUR	30	100.00 %	FC[1]
Varsity Packaging Limited, Theale-Reading (GBR)	GBP	300	100.00 %	FC[1]

2019					2018				
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]	Al-Ekbal Printing & Packaging Co., Amman (JOR)	JOD	3,500	86.94 %	FC[1]
Beaucrest Limited, Hong Kong (HKG)	HKD	1	100.00 %	NC[4]	-	-	-	-	-
C.P. Schmidt GmbH, Kaiserslautern (DEU)	EUR	3,000	100.00 %	FC[1]	C.P. Schmidt GmbH, Kaiserslautern (DEU)	EUR	3,000	100.00 %	FC[1]
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]	-	-	-	-	-
Gundlach GmbH, Bielefeld (DEU)	EUR	52	100.00 %	FC[1]	Gundlach GmbH, Bielefeld (DEU)	EUR	52	100.00 %	FC[1]
Mayr-Melnhof Graphia Izmir Karton sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	24,613	100.00 %	FC[1]	Mayr-Melnhof Graphia Izmir Karton sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	24,613	100.00 %	FC[1]
Mayr-Melnhof Gravure GmbH, Trier (DEU)	EUR	7,000	100.00 %	FC[1]	Mayr-Melnhof Gravure GmbH, Trier (DEU)	EUR	7,000	100.00 %	FC[1]
Mayr-Melnhof Packaging Austria GmbH, Vienna (AUT)	EUR	3,050	100.00 %	FC[1]	Mayr-Melnhof Packaging Austria GmbH, Vienna (AUT)	EUR	3,050	100.00 %	FC[1]
Mayr-Melnhof Packaging Iberica SL, Valencia (ESP)	EUR	7,500	100.00 %	FC[1]	Mayr-Melnhof Packaging Iberica SL, Valencia (ESP)	EUR	7,500	100.00 %	FC[1]
Mayr-Melnhof Packaging International GmbH, Vienna (AUT)	EUR	5,000	100.00 %	FC[1]	Mayr-Melnhof Packaging International GmbH, Vienna (AUT)	EUR	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 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 Packaging Romania S.R.L., Blejoi (ROU)	RON	5,504	100.00 %	FC[1]	Mayr-Melnhof Packaging Romania S.R.L., Blejoi (ROU)	RON	5,504	100.00 %	FC[1]
Mayr-Melnhof Packaging UK Limited, Deeside (GBR)	GBP	9,700	100.00 %	FC[1]	Mayr-Melnhof Packaging UK Limited, Deeside (GBR)	GBP	9,700	100.00 %	FC[1]
Mayr-Melnhof Printing and Packaging Tehran Company, Private Joint Stock, Tehran (IRN)	IRR	514,800,000	99.56 %	FC[1]	Mayr-Melnhof Printing and Packaging Tehran Company, Private Joint Stock, Tehran (IRN)	IRR	514,800,000	99.56 %	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]
MM Graphia GmbH, Bielefeld (DEU)	EUR	25	100.00 %	FC[1]	MM Graphia GmbH, Bielefeld (DEU)	EUR	25	100.00 %	FC[1]
MM Graphia Innovaprint GmbH, Bielefeld (DEU)	EUR	500	100.00 %	FC[1]	MM Graphia Innovaprint GmbH, Bielefeld (DEU)	EUR	500	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]

2019					2018				
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 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	97,000,000	100.00 %	FC[1]	MM Packaging Colombia S.A.S., Santiago de Cali (COL)	COP	75,000,000	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 GmbH, Bielefeld (DEU)	EUR	26	100.00 %	FC[1]	MM Packaging GmbH, Bielefeld (DEU)	EUR	26	100.00 %	FC[1]
MM Packaging Polska Sp. z o.o., Bydgoszcz (POL)	PLN	71,500	100.00 %	FC[1]	MM Packaging Polska Sp. z o.o., Bydgoszcz (POL)	PLN	71,500	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 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 Polygrafoformlenie Packaging LLC, St. Petersburg (RUS)	RUB	565,851	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]	MM Polygrafoformlenie Rotogravure LLC, St. Petersburg (RUS)	RUB	33,000	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]	-	-	-	-	-
Neupack Gesellschaft m.b.H., Reichenau/Rax (AUT)	EUR	1,820	100.00 %	FC[1]	Neupack Gesellschaft m.b.H., Reichenau/Rax (AUT)	EUR	1,820	100.00 %	FC[1]
OOO TANN Nevskiy, Pskov (RUS)	RUB	230,000	100,00 %	FC[1]	-	-	-	-	-
PacProject GmbH, Hamburg (DEU)	EUR	26	69.77 %	FC[1]	PacProject GmbH, Hamburg (DEU)	EUR	26	69.77 %	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]	R + S Stanzformen GmbH, Niederdorfelden (DEU)	EUR	260	100.00 %	FC[1]
sigmavista it consulting gmbh, Traun (AUT)	EUR	35	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]

2019					2018				
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	52,000	100.00 %	FC[1]
TANN ARGENTINA S.A., Buenos Aires (ARG)	ARS	12	100,00%	NC[4]	-	-	-	-	-
TANN Colombiana S.A.S., La Ceja/Medellin (COL)	COP	351,000	100,00 %	FC[1]	-	-	-	-	-
TANN GERMANY GmbH, Glinde (DEU)	EUR	512	100,00 %	VK[1]	-	-	-	-	-
TANN Holding GmbH, Traun (AUT)	EUR	70	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 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 Service GmbH, Traun (AUT)	EUR	35	100,00 %	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]	-	-	-	-	-
TBG Development Philippines, Inc., Makati City (Metro Manila) (PHL)	PHP	53,320	100,00 %	FC[1]	-	-	-	-	-
Ultimatec Engineering GmbH, Vienna (AUT)	EUR	35	100,00 %	FC[1]	Ultimatec Engineering GmbH, Vienna (AUT)	EUR	35	60.00 %	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 (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 2019, the Board Members were as follows:

Management Board
Wilhelm HÖRMANSEDER (Chairman)
Andreas BLASCHKE (Member of the Management Board)
Franz HIESINGER (Member of the Management Board)
Franz RAPPOLD (Member of the Management Board until June 30, 2019)

Supervisory Board
Rainer ZELLNER (Chairman)
Johannes GOESS-SAURAU (1st Deputy Chairman)
Nikolaus ANKERSHOFEN (2nd Deputy Chairman)
Romuald BERTL (Member of the Supervisory Board)
Guido HELD (Member of the Supervisory Board)
Alexander LEEB (Member of the Supervisory Board)
Georg MAYR-MELNHOF (Member of the Supervisory Board)
Michael SCHWARZKOPF (Member of the Supervisory Board until December 18, 2019)
Andreas HEMMER (Employee Representative)
Gerhard NOVOTNY (Employee Representative)

Vienna, March 16, 2020

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke 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 of December 31, 2019, the separate consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the fiscal 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 of December 31, 2019, and of its financial performance and cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRSs) as adopted by the EU and the additional requirements under section 245 a of the 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 auditing standards. 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 is sufficient and appropriate to provide a basis for our opinion.

Other Matter

The consolidated financial statements of Mayr-Melnhof Karton Aktiengesellschaft, Vienna, for the fiscal year ended December 31, 2018 were audited by another auditor who issued an unqualified audit opinion dated February 28, 2019 on these financial statements.

Our audit opinion is not qualified in respect of this matter.

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 fiscal 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
- Reference to related disclosures

1. Business combinations – identification and measurement of assets and liabilities acquired in the course of the acquisition of Eurasia Invest Holding AG (now Tann Holding GmbH), Traun

Description

On January 15, 2019, Mayr-Melnhof Packaging International GmbH, Vienna, acquired all shares in Eurasia Invest Holding AG (i. e. Tann Holding GmbH), Traun, including its subsidiaries, in short the Tann-Group. The consideration transferred at the acquisition date amounted to thous. EUR 267,718. Taking into account the acquired net assets in the amount of thous. EUR 137,222, this resulted in goodwill in the amount of thous. EUR 130,496.

Pursuant to IFRS 3, the identifiable assets and liabilities acquired were stated at fair value at the acquisition date. The identification and measurement of the net assets acquired is complex and requires a series of discretionary decisions and assumptions. In particular, the measurement of intangible assets, buildings and machinery acquired is based to a considerable amount on asset specific assumptions requiring discretionary decisions and estimates of the Management Board. To determine the fair values of the identifiable assets and liabilities, the Management Board consulted external independent experts.

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 measured 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 understand the business combination, we read the share purchase agreement, including the supplementary agreement to the share purchase agreement, entered into between the selling parties and Mayr-Melnhof Packaging International GmbH, Vienna. In accordance with the relevant regulations of IFRS 3 "Business Combinations", we have evaluated the arrangements agreed in these agreements with regard to the recognition in the consolidated balance sheet and the notes to the consolidated financial statements as at December 31, 2019.

We have critically assessed the expertise, competencies and objectivity of the engaged experts. 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 and replacement cost of acquired machinery as well as the assumptions on the estimated churn rate of the identified customer base) and whether the assets and liabilities identified in the course of the purchase price allocation are complete and measured adequately. We checked whether the measurement methods applied are in accordance with the measurement principles of IFRS 3 in conjunction with the relevant regulations of IFRS 13.

Finally, we evaluated whether the disclosures on the business combination of the Tann-Group in the notes to the consolidated financial statements as at December 31, 2019 are complete and appropriate.

The approach serving as a basis for the identification and measurement 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 presentation of the business combination in the notes to the consolidated financial statements as at December 31, 2019 complies with the requirements of IFRS 3.

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, 2019 under note 5 – "Changes in the consolidated companies" in section a – "Changes in 2019", under note 7 – "Financial instruments disclosures" in section d – "Capital management" as well as under Note 31 – "Notes on the consolidated cash flow statement".

2. Impairment of assets – Recoverability of property, plant and equipment and the carrying amounts of the cash generating units.

Description

The consolidated financial statements of Mayr-Melnhof Karton Aktiengesellschaft, Vienna, include property, plant and equipment in the amount of thous. EUR 1,034,471 as at December 31, 2019 (prior year: thous. EUR 852,607). In case of any indications in this regard, the Management Board evaluates whether property, plant and equipment or the carrying amounts of a cash generating unit may be impaired.

An impairment loss is recognized to the extent the carrying amount of the individual asset or the cash generating unit exceeds the recoverable amount. The recoverable amount of an asset or a cash generating unit is the fair value less costs to sell or the higher value in use.

When evaluating whether there are any indications for an impairment, external and internal sources of information are to be taken into account.

Mayr-Melnhof 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. As already slight changes in the capitalization rate may have a significant impact on the recoverable amount, there are major estimation uncertainties with regard to determining the value in use and thus the recoverability of property, plant and equipment and the carrying amount of the cash generating units. If there are any indications for a possible impairment and the value in use is below the carrying amounts of property, plant and equipment or the carrying amount of the cash generating units, Mayr-Melnhof determines the fair value less costs to sell together with external independent experts.

Measurement of the fair values less costs to sell is complex, requires relevant expertise and considerably depends on significant assumptions and discretionary decisions. For the consolidated financial statements, there is the risk that the measurement assumptions serving as a basis for the impairment test – in case the asset specific fair values less costs to sell are not measured 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 exposed to risk and identified in this process may be impaired. Moreover, we evaluated whether all relevant internal and external sources of information were taken into account by management.

Together with our measurement experts, we examined the appropriateness of the significant assumptions and input parameters as well as the measurement of the values in use and, where relevant, the fair values less costs to sell. In doing so, we particularly ascertained the appropriateness of the assumptions made with regard to the planned development of future cash flows before tax.

We assessed the capitalization rates being applied and how they were derived, both with regard to the individual assumptions and parameters based on available market data and against the backdrop of a critical overall evaluation in comparison with similar companies in the packaging industry.

We varified the assumptions made by management with regard to the amount of the fair values less costs to sell of the property, plant and equipment to be tested and reconciled them with the bid prices for comparable property, plant and equipment made available by the external expert (comparative value method). We examined the measurement methods applied to determine whether they are in accordance with the measurement principles set forth in IFRS.

Finally, we evaluated whether the disclosures in the notes on the recoverability of property, plant and equipment of the cash generating units are complete and adequate.

The carrying amounts of the property, plant and equipment or 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 justifiable range. The disclosures in the notes to the consolidated financial statements as at December 31, 2019 with regard to the recoverability of property, plant and equipment and 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 of December 31, 2019 under note 6 – "Development of fixed assets" in section c – "Recoverability of non-current assets".

Responsibilities of Management and of the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the EU, and the additional requirements under Section 245 a of the 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 auditing standards, 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 auditing standards, 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 the Austrian Commercial Code, 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 requirements.

Management is responsible for the preparation of the management report for the Group in accordance with the Austrian Commercial Code.

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 requirements, includes accurate disclosures pursuant to Section 243 a of the 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.

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 the auditor's report.

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 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, 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.

Additional information in accordance with article 10 of the EU regulation
We were appointed as statutory auditor at the Ordinary Shareholders' Meeting dated April 24, 2019. We were engaged by the supervisory board on August 8, 2019. We were appointed as auditor of the consolidated financial statements for the first time as of December 31, 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 we did not provide any prohibited non-audit services (Article 5 paragraph 1 of the EU Regulation) and that we remained independent of the audited company in conducting the audit.

Responsible Austrian Certified Public Accountant
Responsible for the proper performance of the engagement is Aslan Milla, Austrian Certified Public Accountant.

Vienna, March 16, 2020

PwC Wirtschaftsprüfung GmbH

Frédéric VILAIN m. p.
Austrian Certified Public Accountant

Aslan MILLA 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 Group 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 paragraph 2 of the 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 16, 2020

The Management Board

Wilhelm Hörmanseder m. p.
Chairman of the Management Board

Andreas Blaschke m. p.
Member of the
Management Board

Franz Hiesinger m. p.
Member of the
Management Board

Development in the 4th Quarter 2019

QUARTERLY OVERVIEW

Mayr-Melnhof Group (IFRS, unaudited)

(consolidated, in millions of EUR)	1st Quarter 2019	2nd Quarter 2019	3rd Quarter 2019	4th Quarter 2019	4th Quarter 2018	+/-
Sales	642.9	632.6	648.8	620.1	574.6	+ 7.9 %
EBITDA[1]	90.9	100.7	105.6	92.4	72.3	+ 27.8 %
Operating profit	57.2	66.8	71.6	59.7	44.8	+ 33.3 %
Operating margin (%)	8.9 %	10.6 %	11.0 %	9.6 %	7.8 %	
Profit before tax	58.1	64.5	71.6	56.9	48.9	+ 16.4 %
Income tax expense	(14.4)	(15.9)	(17.6)	(13.0)	(11.1)	
Profit for the period	43.7	48.6	54.0	43.9	37.8	+ 16.1 %
Net profit margin (%)	6.8 %	7.7 %	8.3 %	7.1 %	6.6 %	
Basic and diluted earnings per share (in EUR)	2.17	2.42	2.70	2.20	1.88	

[1] adjusted according to definition (see Glossary)

Market dynamics traditionally slowed towards the end of the year but remained overall more solid than in the previous year's quarter which had been characterized by a noticeable weakening due to a reduction in stocks along the supply chain.

MM Karton recorded a capacity utilization of 95 % after 90 % in the fourth quarter of the previous year. Operating profit of the division totaled EUR 23.1 million after EUR 16.5 million. The operating margin reached 8.7 % (4th quarter 2018: 6.3 %).

Operating profit of MM Packaging at EUR 36.6 million was mainly acquisition-related above the previous year's value (4th quarter 2018: EUR 28.3 million), resulting in an increase of the operating margin to 9.5 % (4th quarter 2018: 8.4 %).

Consolidated sales at EUR 620.1 million were around 7.9 % higher than in the previous year's period (4th quarter 2018: EUR 574.6 million). This growth is mainly due to the initial inclusion of the Tann-Group.

The Group's operating profit rose to EUR 59.7 million (4th quarter 2018: EUR 44.8 million), the operating margin to 9.6 % (4th quarter 2018: 7.8 %).

Profit before tax increased to EUR 56.9 million (4th quarter 2018: EUR 48.9 million), the profit for the period to EUR 43.9 million (4th quarter 2018: EUR 37.8 million).

Glossary

DEFINITION OF FINANCIAL INDICATORS

Cash earnings
Sum of profit for the year before depreciation, amortization as well as impairment of property, plant and equipment and intangible assets and before non-cash-effective and deferred taxes.

Cash earnings margin
Cash earnings divided by sales.

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 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, and the respective profit or loss attributable to non-controlling (minority) shareholders according to IAS 32 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, average provisions for non-current liabilities and charges and average obligations with regard to non-controlling (minority) shareholders according to IAS 32 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 and the respective profit or loss attributable to non-controlling (minority) shareholders according to IAS 32 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

	2015	2016	2017	2018	2019
Development of sales (in millions of EUR)					
Total sales	2,567.7	2,659.5	2,751.9	2,788.1	**2,976.9**
less intersegment sales between the divisions	(102.5)	(102.9)	(104.7)	(108.7)	**(111.8)**
less intersegment sales in the divisions	(283.7)	(283.9)	(310.4)	(341.7)	**(320.7)**
Consolidated sales	2,181.5	2,272.7	2,336.8	2,337.7	**2,544.4**
Earnings data (in millions of EUR)					
Net value added	601.6	650.8	659.2	670.5	**756.1**
EBITDA	299.4[3]	312.7[3]	314.7[3]	324.4[3]	**389.6**
Operating profit	199.9	213.7	215.0	217.1	**255.3**
Profit for the year	142.1	153.4	155.0	164.2	**190.2**
Cash earnings	238.4	256.3	257.1	269.7	**310.4**
Depreciation/capital expenditures (in millions of EUR)					
Depreciation and amortization[1]	99.6	99.1	99.7	107.3	**134.3**
Capital expenditures (CAPEX)	128.0	144.2	159.1	124.4	**151.0**
Employees	9,938	9,927	9,856	9,445	**10,014**
Profitability indicators					
Return on equity	12.7 %	12.8 %	12.0 %	12.1 %	**13.1 %**
Return on assets	8.3 %	8.4 %	8.3 %	8.5 %	**9.0 %**
Net profit margin	6.5 %	6.7 %	6.6 %	7.0 %	**7.5 %**
EBITDA margin	13.7 %	13.8 %	13.5 %	13.9 %[3]	**15.3 %**
Operating margin	9.2 %	9.4 %	9.2 %	9.3 %	**10.0 %**
Cash earnings margin	10.9 %	11.3 %	11.0 %	11.5 %	**12.2 %**
Return on capital employed	16.1 %	15.8 %[3]	15.1 %	15.0 %[3]	**15.4 %**
Return on investment	10.9 %	11.0 %	10.9 %	11.0 %	**11.7 %**
Balance sheet indicators					
Equity ratio	60.2 %	63.5 %	65.5 %	67.0 %	**62.3 %**
Property, plant and equipment to total assets	40.0 %	40.0 %	42.7 %	41.3 %	**42.7 %**
Total equity and non-current liabilities to property, plant and equipment	2.0	2.0	1.9	2.0	**1.9**
Working capital (in millions of EUR)	615.7	710.5	644.3	698.8	**523.9**
Financial indicators (in millions of EUR)					
Net debt (-)/Net liquidity (+)	- 35.0	- 7.2	- 11.8	49.4	**- 218.6**
Share performance indicators (in EUR)					
Market capitalization[2] (in millions of EUR)	2,290	2,014	2,450	2,200	**2,392**
Basic and diluted earnings per share	7.08	7.67	7.73	8.18	**9.49**
Dividend per share	2.80[4]	3.00	3.10	3.20	**3.60[5]**

[1] incl. impairment of property, plant and equipment and intangible assets
[2] per ultimo
[3] adjusted according to definition (see Glossary)
[4] thereof EUR 1.60 interim dividend per share
[5] proposed for 2019

The key indicators of the financial year 2019 are not fully comparable with the previous years due to initial application of IFRS 16.

FINANCIAL CALENDAR 2020

April 19, 2020	Record date "Ordinary Shareholders' Meeting"
April 29, 2020	26th Ordinary Shareholders' Meeting – Vienna
May 6, 2020	Ex-dividend day
May 7, 2020	Record date "Dividends"
May 13, 2020	Dividend payment date
May 14, 2020	Results for the 1st quarter of 2020
August 20, 2020	Results for the 1st half-year of 2020
November 12, 2020	Results for the first three quarters of 2020

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 81906 a 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.

Statements referring to people are valid for both men and women.

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Published and edited by

Mayr-Melnhof Karton AG
Brahmsplatz 6
A-1040 Vienna

For further information, please contact
Stephan Sweerts-Sporck
Investor Relations
Phone: +43 1 501 36-91180
Fax: +43 1 501 36-91195
e-mail: investor.relations@mm-karton.com