



2018

Key Indicators

consolidated (in millions of EUR)	2018	2017	+/-
Consolidated sales	2,337.7	2,336.8	+ 0.0 %
EBITDA	332.1	314.3	+ 5.7 %
Operating profit	217.1	215.0	+ 1.0 %
Profit before tax	217.9	205.5	+ 6.0 %
Profit for the year	164.2	155.0	+ 5.9 %
Cash earnings	269.7	257.1	+ 4.9 %
Return on equity	12.1 %	12.0 %	
Operating margin	9.3 %	9.2 %	
Return on capital employed	15.5 %	15.1 %	
Total equity	1,384.8	1,318.6	+ 5.0 %
Total assets	2,065.7	2,013.4	+ 2.6 %
Capital expenditures (CAPEX)	124.4	159.1	- 21.8 %
Depreciation and amortization	107.3	99.7	+ 7.6 %
Employees	9,445	9,856	- 4.2 %
Earnings per share (in EUR)	8.18	7.73	+ 5.8 %
Dividend per share (in EUR)	3.20¹⁾	3.10	+ 3.2 %

¹⁾ proposed

Please find the five year overview 2014 – 2018 at the end of the report.

Strong Performance. Strong Assets.

As the world's largest producer of coated recycled fiber-based cartonboard with a significant production of virgin fiber-based cartonboard and as the largest European producer of folding cartons, the Mayr-Melnhof Group is strong positioned. High-performance facilities with state-of-the art technology and close to the customer are our industrial base, of which we show a selection in this report.

Facts

We focus sustainably on our core competence, the production and processing of cartonboard to packaging for consumer staples. We thus pursue a long-term attractive and balanced business with manageable cyclicity.

Market position

MM Karton is the world's largest producer of coated recycled fiber-based cartonboard and an important manufacturer of virgin fiber-based cartonboard in Europe. MM Packaging is the leading European producer of cartonboard packaging and one of the largest worldwide.

Market

The market for cartonboard packaging is sustainable and correlates with private consumption. MM Karton sells blank cartonboard mainly to packaging producers. MM Packaging supplies a broad range of consumer goods industries with printed and variously finished cartonboard packages.

Geographic positioning

The focus of our business lies on Europe. Cartonboard deliveries between continents are less important. Due to transport costs and service demands, cartonboard packaging is defined as regional product. With production plants all over Europe and in emerging markets, MM Packaging supplies customers increasingly global.

Strategic positioning

Consequent maintaining of market leadership in the core competence areas based on cost, technology and innovation leadership is the goal. The excellent industrial production using economies of scale and exploiting new markets determines our course.

Growth

We grow organically and through acquisitions. The collaboration with strong customers, maximum efficiency in production as well as unrestrained investment in technology and expertise are the basis. Creation of value added characterizes the expansion course.

Financial targets

We pursue a sustainably high return on capital employed (ROCE) and a continuous dividend policy in accordance with profit dynamics. Around 50 % of the generated cash earnings are invested in the long term, focusing on cost reduction and further growth.

Figures 2018

2,337.7

Group sales
in millions of EUR

8.18

Earnings per share
in EUR

3.20

Dividend per share
in EUR (proposed)

15.5 %

ROCE
return on capital employed

269.7

Cash earnings
in millions of EUR

2.7 %

Dividend yield

9.3 %

Operating margin

9,445

Employees

124.4

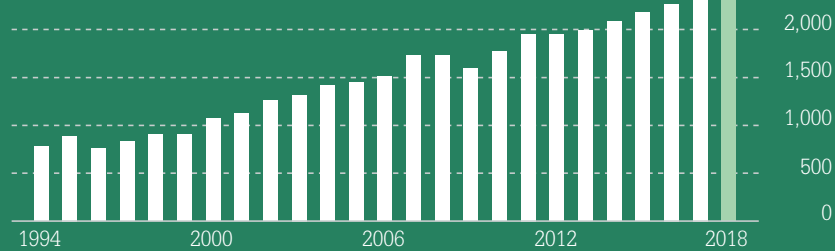
Capital expenditures
in millions of EUR

25 years on the Stock Exchange

Sales

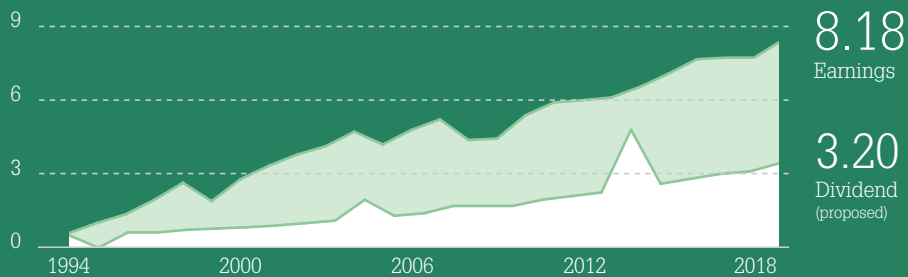
in millions of EUR

2,337.7



Earnings and dividend per share

in EUR



2004: incl. EUR 0.75 bonus
2013: incl. EUR 2.40 bonus

Share price Mayr-Melnhof Karton AG

in EUR

26.16



Our strategy has proved successful

- Focus on core business
- Market leader based on cost, technology, and innovation leadership
- Leading in consolidation of the European cartonboard packaging industry
- International growth with strong customers
- Consistent acquisition course
- Continuous dividend policy
- Long-term management

825.2

Dividend payment

in millions of EUR
(since IPO until year-end 2018)

470 %

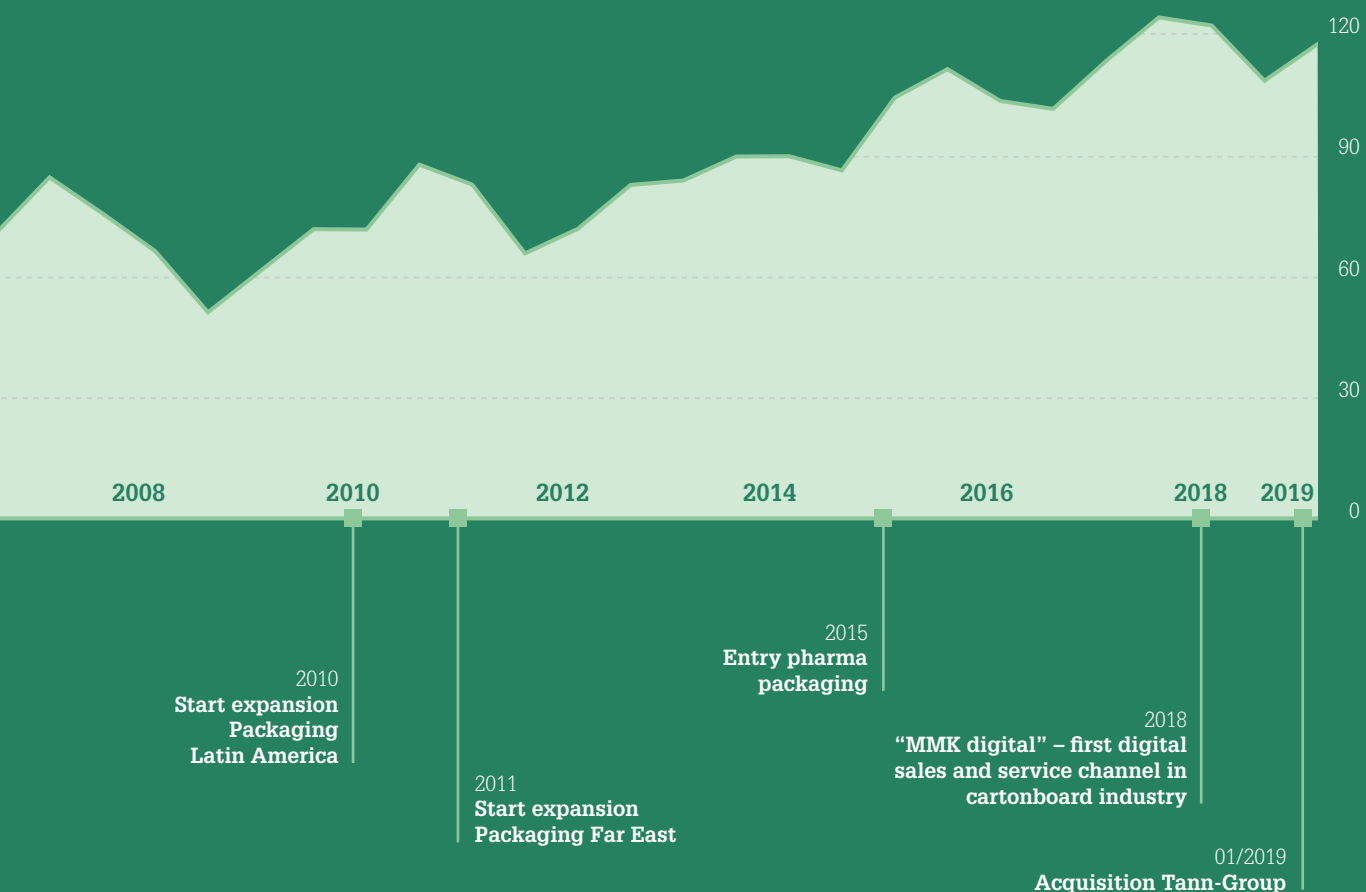
Total shareholder return

per share
(since IPO until year-end 2018)

2,200

Market cap

in millions of EUR
(year-end 2018)



Business structure

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



¹⁾ excl. rejects

(Values 2018)

A balanced portfolio

MM Karton

41 %
Group sales

44 %
Group operating profit

16.1 %
ROCE



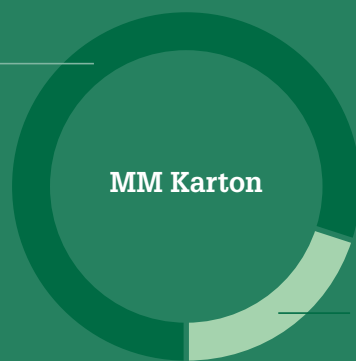
MM Packaging

59 %
Group sales

56 %
Group operating profit

15.1 %
ROCE

79 %
Recycled
fiber-based
cartonboard



79 %
Multinational
customers

21 %
Virgin fiber-based
cartonboard



21 %
Local customers

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Looking into the future,
continuity and long-term
orientation will remain
our direction.

Dear Shareholders,

I am pleased to report to you one more time in a row on the continuing success course of your Company in 2018. We again succeeded in concluding the year with a record result. This was underpinned by the initial economic-related robust demand in Europe and a strong performance of the MM Karton division due to better prices and lower direct costs. In contrast, at MM Packaging we have faced the challenge of passing on higher input prices to customers, in particular for cartonboard. The implementation was effected with a time lag, accompanied by consistent rationalization measures in the plants, thus pressure on margins could be absorbed.

I would like to take this opportunity to express my gratitude and high recognition to the entire MM team. Our employees once again have made a major contribution to the success of your Company with their performance, responsibility, and passion for our business. Their loyalty represents an important competitive advantage for the future.

I would also like to thank you, our shareholders, for the trust you have placed in us over so many years. In accordance with profit growth and our continuous dividend policy, it is with great pleasure and satisfaction to recommend to the 25th Ordinary Shareholders' Meeting another dividend increase. This will be the ninth time in succession in a steady upward development of profit and dividend distribution over 25 years of listing on the Stock Exchange.

The total shareholder return over this period of around 470 % underlines the long-term attractiveness of our business and the validity of MM's strategy in various and rapidly changing challenges. We have so far succeeded in sustainably maintaining market leadership in the core business on basis of cost, technology, and innovation leadership. Looking into the future, continuity and long-term orientation will therefore remain our direction, always with the focus on value orientation, use of state-of-the-art technologies, and sustainable development of our human resources.

Organic growth and appropriate acquisitions will further determine our future course with the goal of sustainably creating value added while keeping risk manageable. The latest acquisition also fits well into this concept, offering attractive potential through presence in new markets and cooperation with existing and new customers.

2019 has started well and your Company holds a solid position.

Accompany us further on!



Wilhelm Hörmanseder
Chairman of the Management Board
February 28, 2019

Management Board



Andreas Blaschke
Member of the Management Board



Wilhelm Hörmanseder
Chairman of the Management Board



Franz Hiesinger
Member of the Management Board



Franz Rappold
Member of the Management Board

An aerial photograph showing a large industrial mill complex situated along a river. The mill buildings are yellow and white, with a prominent green roof. A road with several trucks is visible on the right side of the river. In the background, there are green hills and a residential area with houses and a school. A green text box is overlaid on the top left of the image.

Europe's largest recycled board mill

MM Karton Frohnleiten, Austria



The Frohnleiten mill has the highest production capacity for recycled fiber-based cartonboard in Europe and is MM Karton's main factory. The here located innovation and competence center for cartonboard packaging is the largest in Europe. MM Karton Frohnleiten is leading in the field of barrier cartonboard for optimum protection of packaged food.

Strong Performance. Strong Assets.



Full power for recycling liner

FS Karton Neuss, Germany



Our cartonboard mill in Neuss produces white coated recycling liner and recycled fiber-based cartonboard on the largest cartonboard machine for recycling grades in Europe. Coated recycling liner is used as a covering material in the production of corrugated cardboard. An attractive application area where high printing quality and high-quality presentation count, e. g. for displays.

Strong Performance. Strong Assets.



MMP Neupack Polska in Bydgoszcz is the market leader for cartonboard packaging in Poland. The latest investments in large-format inline cold foil application, automated pallet logistics for both existing microflute machines and a fully automated finished goods warehouse for up to 17,000 pallets provide a strong basis for the further systematic development of the site.

Strong Performance. Strong Assets.

MMP Neupack Polska, Bydgoszcz, Poland

High-end logistics for consumer packaging





Fully automated
high performance

Mayr-Melnhof Gravure, Trier, Germany



With an annual production of over 4 billion packages, Mayr-Melnhof Gravure in Trier holds a leading position at MM Packaging. The plant's machinery specialized in large volumes guarantees high performance in terms of quantity and quality. Numerous production and logistics processes have been running fully automated recently.

Strong Performance. Strong Assets.

The image shows a vast industrial facility with a high, vaulted ceiling supported by a network of white steel trusses. The floor is filled with intricate machinery, including large rollers and conveyor systems. Multiple levels of metal walkways with safety railings are visible, providing access to different parts of the equipment. The lighting is a mix of overhead industrial fixtures and natural light from windows on the right side. The overall atmosphere is one of a modern, well-maintained manufacturing plant.

Our Slovenian mill, Kolicveo Karton, produces recycled fiber-based cartonboard, virgin fiber-based cartonboard, and white coated recycling liner on two machines. The mill rapidly addresses the latest trends and implements them in innovative new cartonboard solutions. For this purpose, the machines can switch flexibly between the manufacture of recycled and virgin fiber-based grades and supply products ranging from heavyweight to lightweight grammages.

Strong Performance. Strong Assets.

Kolicveo Karton, Slovenia

A photograph of a complex industrial machine, possibly a lathe or mill, with multiple levels of metal railings. The machine is made of grey metal and has several blue circular components. A blue rectangular box is overlaid on the image, containing white text. The background shows a factory setting with windows and overhead lights.

Flexible
all-rounder

A photograph of a paper mill interior. The scene is dominated by large, complex machinery, including rollers and control panels. A prominent feature is a large, white, cylindrical machine with a circular opening, likely a paper roll handling unit. To its left is a control cabinet with various buttons and a small screen. The background shows more industrial equipment, including large metal pipes and a red structural beam. The floor is a light-colored, polished concrete. The overall atmosphere is industrial and clean.

Global market
leader in
tipping paper

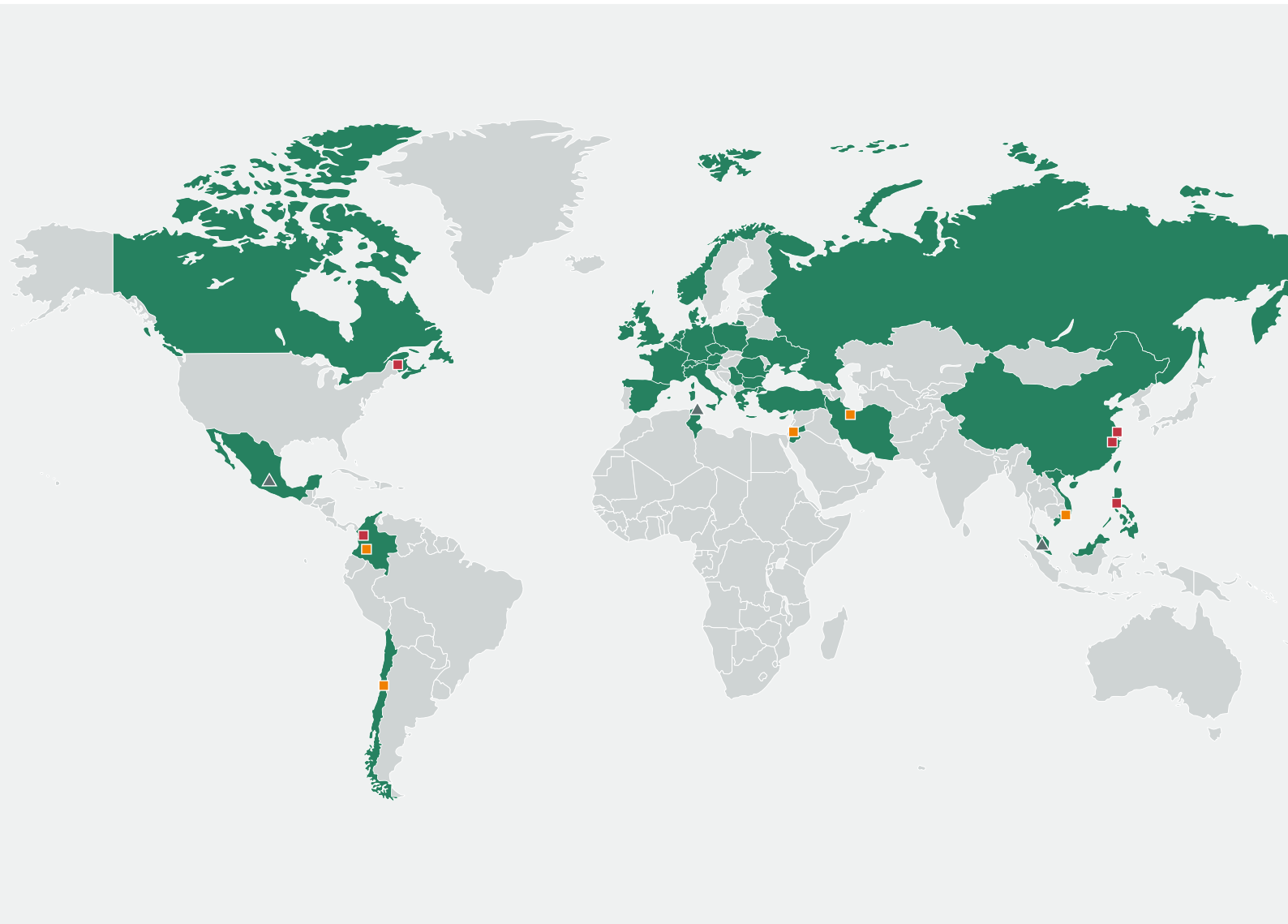
TANNPAPIER, Traun, Austria



As world market leader, the Tann-Group, acquired by MM Packaging at the beginning of 2019, prints and finishes fine paper into cigarette filter paper (tipping paper) at eight sites around the globe. MM Packaging expands the existing production of cigarette packages by the technologically-related manufacture of tipping paper with the aim of strengthening profitability by extending value added. The common customer base and Tann's global footprint open up interesting perspectives for the company's further development.

Strong Performance. Strong Assets.

Global presence ...



100

Sales in more than
100 countries

52

Production sites

7

Cartonboard mills

45

Packaging sites¹⁾

¹⁾ incl. acquisition Tann-Group

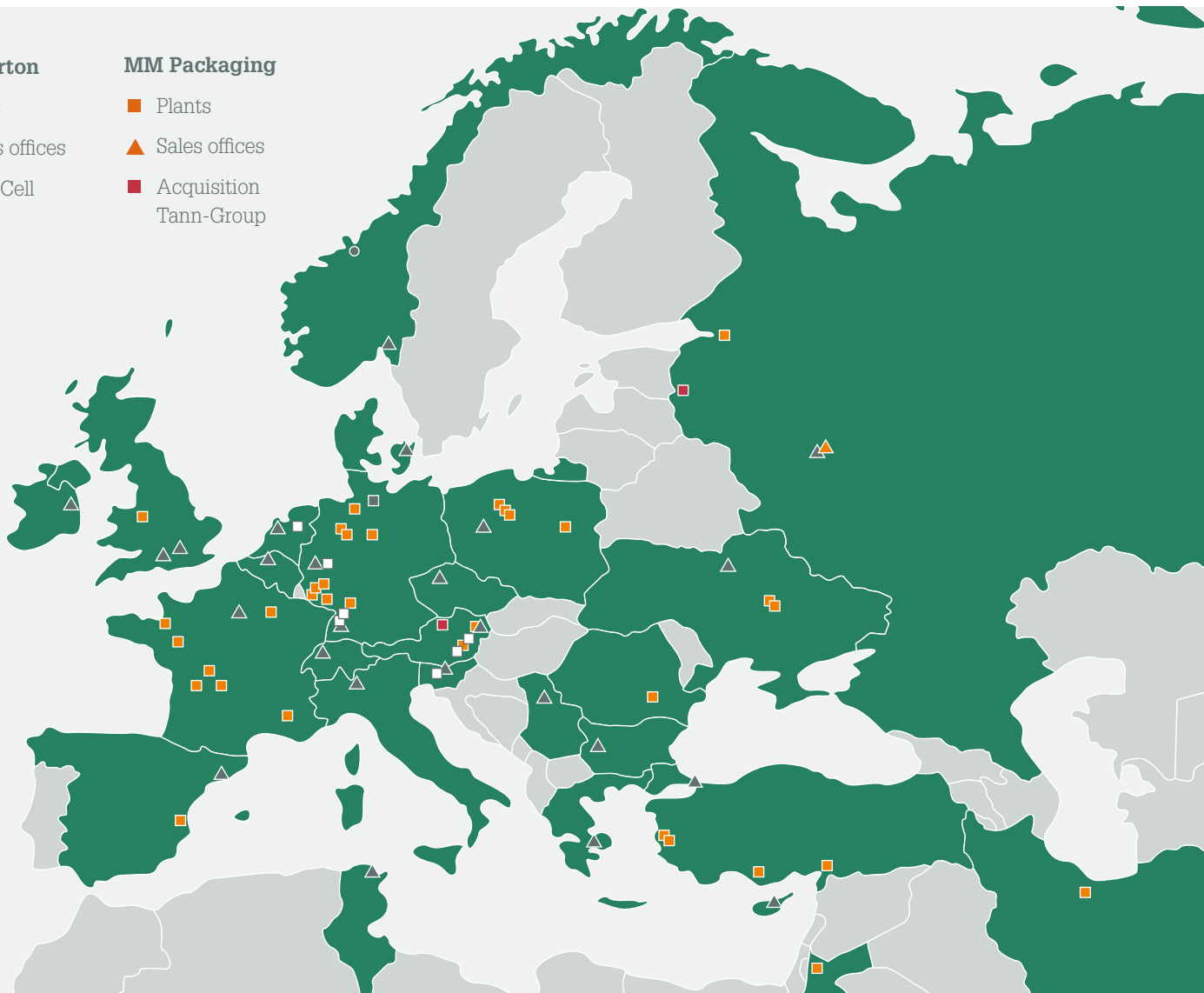
... Focus on Europe

MM Karton

- Mills
- ▲ Sales offices
- FollaCell

MM Packaging

- Plants
- ▲ Sales offices
- Acquisition
Tann-Group



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

MM Karton

Sustainable Board Solutions

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

Sustainable business model The products of MM Karton are used primarily as raw materials for the production of cartonboard packaging for consumer staples. The sales focus lies on food packaging, packaging for household and hygiene products as well as pharmaceuticals. Demand thus correlates strongly with private consumption.

MM Karton's main customers are folding carton producers of the still highly fragmented European folding carton industry. With a share in deliveries of approx. 12 %, MM Packaging is the largest customer of MM Karton, purchasing as a profit center at market conditions.

Focused production in Europe – global sales MM Karton has focused production on seven targeted cartonboard mills in the main market Europe. Around 85 % of the sales share are attributable to this. Owing to the high level of specific finishing of cartonboard in individual formats and high logistical demands regarding short-term product delivery to customers and transportation costs, the European cartonboard market is primarily supplied from Europe. Trade between the continents plays a minor role, particularly for recycled fiber-based cartonboard. The concentration of the European cartonboard industry is far progressed, with the five largest suppliers accounting for more than three-quarters of the capacities.

Leading through cost leadership and innovation Reduction of unit costs and continuous technological progress in production and service determine the strategic orientation of MM Karton. With an increasing share of new and optimized products for existing and new applications, we want to grow further and increase value added.

Sustained investment in our mills is primarily aimed at lowering specific costs, especially for fibers and energy, as well as continuous development of our facilities.

Differentiation through digitalization and automation Our current digitalization and automation initiative enables us to create differentiation through significant advances in speed and quality, both in the dialog with our customers and operational performance.

MM Karton Key Indicators

(in millions of EUR)	2018	2017	+/-
Sales	1,062.2	1,048.7	+ 1.3 %
EBITDA	142.9	115.9	+ 23.3 %
Operating profit	96.4	73.5	+ 31.2 %
Cash earnings	115.6	100.3	+ 15.3 %
EBITDA margin	13.5 %	11.1 %	
Operating margin	9.1 %	7.0 %	
Cash earnings margin	10.9 %	9.6 %	
Return on capital employed	16.1 %	12.7 %	
Capital expenditures (CAPEX)	70.6	65.9	+ 7.1 %
Depreciation and amortization	45.3	42.4	+ 6.8 %
Employees	2,501	2,524	- 0.9 %

	2018	2017	+/-
Tonnage sold (in thousands of tons)	1,663	1,675	- 0.7 %
Tonnage produced (in thousands of tons)	1,664	1,685	- 1.2 %
Recycled fiber-based board	1,313	1,345	
Virgin fiber-based board	351	340	
Capacity utilization	97 %	98 %	

1,062.2

Division sales

in millions of EUR

9.1 %

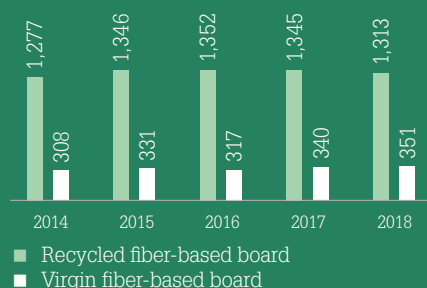
Operating margin

16.1 %

ROCE

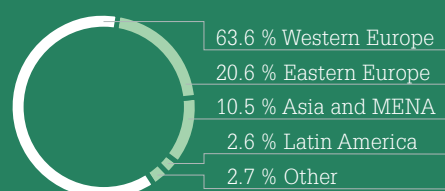
Return on capital employed

Tonnage produced by MM Karton



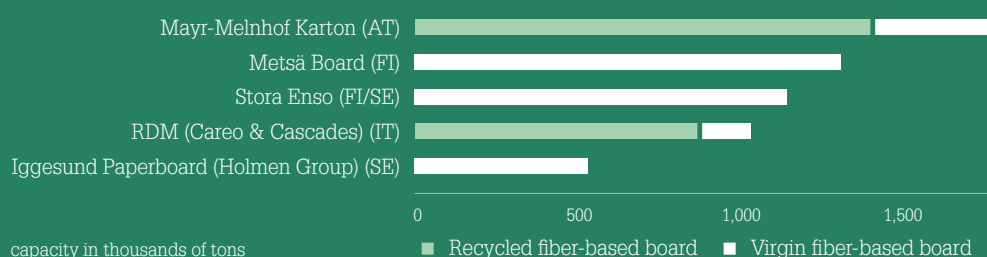
in thousands of tons

Sales by destination¹⁾



¹⁾ incl. interdivisional sales

Leading European producers of coated board



capacity in thousands of tons

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

MM Packaging

Shaping the World of Cartons

Market leader in consumer packaging and printing – in Europe and beyond In 2018, MM Packaging processed around 766,000 tons of recycled and virgin fiber-based cartonboard and paper into more than 60 billion consumer goods packages. MM Packaging is thus not only the leading producer of folding cartons in Europe but also one of the largest worldwide. Folding carton is defined as regional product due to transport costs and service demands.

With an international network of 45 sites¹⁾ in 18 countries, MM Packaging offers a unique pan-European supply concept and additionally holds a leading position also in individual countries outside Europe with production in the Middle East, Latin America, and the Far East.

Volume business and specialized high-end business The main sales area of MM Packaging are cartonboard packages for consumer staples. Due to the broad technological base and market expertise, our business covers the volume market of fast-moving consumer goods (FMCG) as well as highly specialized printing and packaging services for markets such as cigarettes, pharmaceuticals, and personal care.

Highly efficient production – progressed automation MM Packaging has been focusing for a long time on industrial production for differentiation within the European folding carton industry which is largely structured by trade businesses. The exploitation of economies of scale due to location size and production plant networks along with the use of high-performance technology characterize our positioning. Increasing automation and digitalization are oriented towards MM Packaging's guiding principle – the creation of the "perfect factory" – with the aim of sustainably maintaining market leadership based on cost and technology leadership.

Expansion with strong customers – consistent acquisition course At around 79 %, the major part of MM Packaging's sales is accounted for by large international customers. Business with a high number of local customers constitutes another core area.

Accompanying strong customers along their expansion and supplying more globally has been a determining factor of MM Packaging's growth course for a long time. Thereby we focus on both, organic growth opportunities and acquisitions, with the aim of continuously expanding our position further at a high profit quality.

¹⁾ incl. acquisition Tann-Group

MM Packaging Key Indicators

(in millions of EUR)	2018	2017	+/-
Sales	1,384.2	1,392.7	- 0.6 %
EBITDA	189.2	198.4	- 4.6 %
Operating profit	120.7	141.5	- 14.7 %
Cash earnings	154.1	156.8	- 1.7 %
EBITDA margin	13.7 %	14.2 %	
Operating margin	8.7 %	10.2 %	
Cash earnings margin	11.1 %	11.3 %	
Return on capital employed	15.1 %	16.7 %	
Capital expenditures (CAPEX)	53.8	93.2	- 42.3 %
Depreciation and amortization	62.0	57.3	+ 8.2 %
Employees	6,944	7,332	- 5.3 %

	2018	2017	+/-
Tonnage processed (in thousands of tons)	766	767	- 0.1 %
Sheet equivalent (in millions)	2,270.7	2,289.9	- 0.8 %

1,384.2

Division sales
in millions of EUR

8.7 %

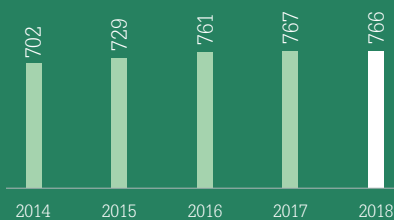
Operating margin

15.1 %

ROCE

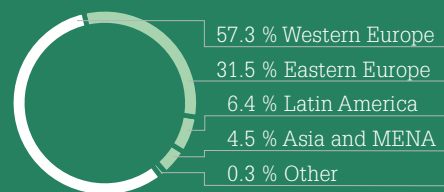
Return on capital employed

Tonnage processed by MM Packaging



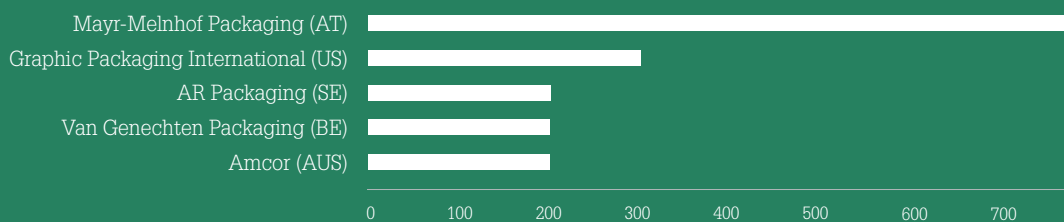
in thousands of tons

Sales by destination¹⁾



¹⁾ incl. interdivisional sales

Leading board converters in Europe



tonnage processed in thousands of tons

Source: MM

MM Shares

In a volatile trading year 2018, in which the indices experienced a considerable downward trend, the Mayr-Melnhof share performed comparatively well with a price performance of -10.2 %. After a price of EUR 122.50 on the last trading day of 2017 (December 29, 2017) and a dividend payout of EUR 3.10 per share, the year 2018 concluded with a share price of EUR 110.00. On January 23, 2018, the share reached a historic high of EUR 131.80.

Our ongoing investor relations activities focused on positioning the MM Group as a long-term oriented, profitable market leader in cartonboard packaging. In 2018 again, high attractiveness was attached to the sustainable business model with convincing dividend continuity and value-oriented and risk-conscious growth by international institutional investors and private investors. The investors' need for information was satisfied by the MM Group's continuous communication activities. We consider the regular, constructive feedback from our dialog with capital market participants an enrichment for our future path. Several analysts of international banks and brokerage houses accompany our business course and strategy with positive recommendations.

The share

The share of Mayr-Melnhof Karton AG has now been listed on the Vienna Stock Exchange for 25 years. The issue price on April 21, 1994 amounted to EUR 26.16. As the share has been listed in the ATX Prime for a long time, 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. Hereby the principle of "one share – one vote" is met, with each share having the same voting rights. Moreover, there is a Sponsored Level 1 American Depositary Receipt (ADR) program with the Bank of New York Mellon. ADRs are denominated in US dollars and are traded over the counter (OTC), with four ADRs equaling one share of common stock.

Stock markets 2018

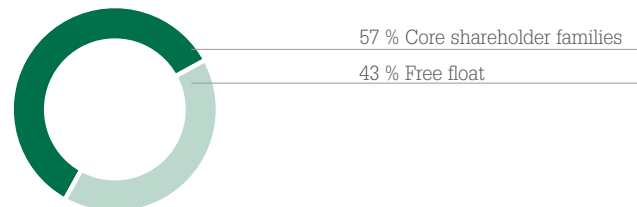
The share prices basically developed according to economic expectations which had been characterized by optimism at the beginning of the year and then revised as a result of trade disputes, the unresolved terms of Brexit, and increasing concerns about inflation-related interest rate hikes. A long period with highly volatile price movement was followed by a correction towards the end of the year. In 2018, the Dow Jones Industrial (DJI) reached a historical high several times as a result of the special tax drive given to the US economy, however turned in the fourth quarter and thus dropped by 5.6 % compared to the previous year. The pan-European index EURO STOXX 50 recorded a fall of 14.3 %. After new peaks in January 2018, the export-oriented DAX lost almost a fifth of its value (18.3 %) by the end of the year against a backdrop of emerging economic and trade-related risks. Similarly, the Vienna Stock Exchange

recorded the highest value of the ATX in the last decade in January 2018 and finished the year with a markdown of 19.7 % compared to the end of 2017.

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 US.

Shareholder structure in %



Continuous dividend policy

The Mayr-Melnhof Group is pursuing a policy of continuously distributing dividends in line with profit performance to the Company's shareholders. Following the positive profit development in the business year 2018, the Management Board will propose a dividend of EUR 3.20 per share to the 25th Ordinary Shareholders' Meeting on April 24, 2019, after EUR 3.10 per share were paid for 2017. This corresponds to a dividend payment totaling EUR 64.0 million (2017: EUR 62.0 million) for the business year 2018 and a payout ratio of 39.10 % (2017: 40.11 %). Based on the average share price in 2018, a dividend yield of around 2.7 % was achieved (2017: 2.7 %).

Investor Relations

The underlying strategy of our investor relations program is a sustainable personal and open dialog with institutional and private investors, analysts, journalists, and the interested public, which we continued to pursue with great commitments also in 2018.

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, Frankfurt, and Zurich. We furthermore recorded an increasing number of direct requests for dialog from investors in the context of new market regulations, which we gladly fulfilled. International and Austrian analysts regularly report on the Group and maintain a constant dialog with MM Investor Relations.

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 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. The presentation of the annual results also takes place as a video webcast in order to allow for maximum possible coverage and long-term availability of capital market information as provided by the management.

We offer conference calls with the CEO in connection with the presentation of the yearly and half-yearly results on a regular basis.

Group website completely modernized in 2018

All this information is regularly announced and made available on the Group's website at <https://www.mayr-melnhof.com>, which was completely modernized in 2018.

Service for shareholders

We offer shareholders and interested parties the possibility to register for the regular receipt of 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

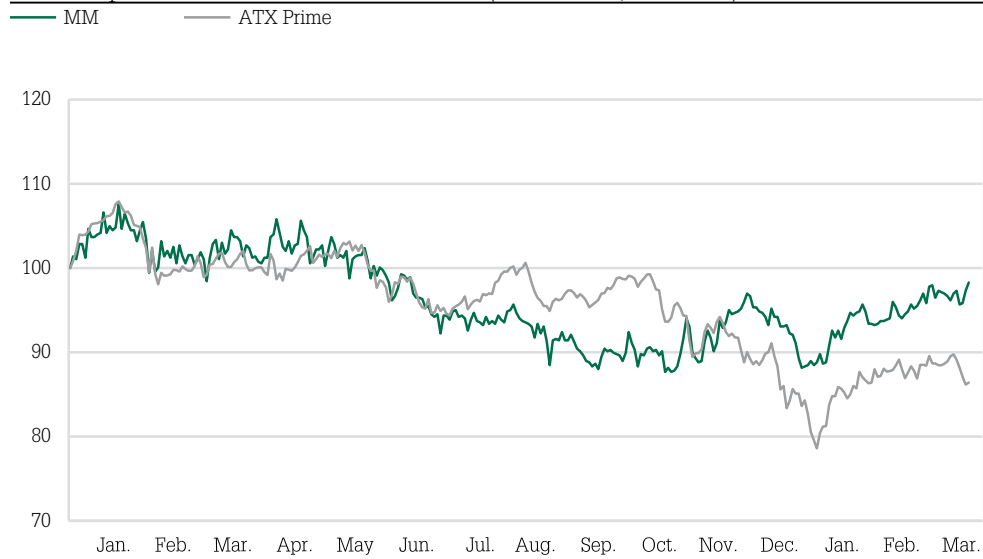
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Fax: +43 1 501 36 91195
E-mail: investor.relations@mm-karton.com
Website: <https://www.mayr-melnhof.com>

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 2018 (December 29, 2017 = 100)



Share performance indicators

Stock price per share (in EUR)	2016	2017	2018
High	111.45	130.95	131.80
Low	93.34	99.50	107.40
Year-end	100.70	122.50	110.00
Stock performance (as of Dec. 31)			
-1 month	+ 5.9 %	+ 1.6 %	- 3.7 %
-3 months	+ 2.9 %	+ 0.9 %	+ 1.7 %
-9 months	- 4.5 %	+ 12.2 %	- 10.7 %
Relative performance (year-end)			
MM Shares	- 12.1 %	+ 21.6 %	- 10.2 %
ATX Prime	+ 8.1 %	+ 29.9 %	- 19.6 %
Share performance indicators (in EUR)			
Earnings per share	7.67	7.73	8.18
Cash earnings per share	12.82	12.85	13.49
Total equity per share	62.62	65.81	69.13
Dividend per share	3.00	3.10	3.20 ³⁾
Dividend (in millions of EUR)	60.00	62.00	64.00 ³⁾
Dividend yield per average share price	3.0 %	2.7 %	2.7 %
Stock market data (Vienna Stock Exchange)			
Trading volume ¹⁾ (in EUR)	1,002,934	1,056,260	1,252,761
Number of shares issued	20,000,000	20,000,000	20,000,000
Free float ²⁾	8,296,720	8,596,720	8,596,720
Market capitalization ²⁾ (in millions of EUR)	2,014	2,450	2,200
ATX Prime weighting ²⁾ (in %)	2.26 %	1.99 %	2.41 %

¹⁾ daily average²⁾ as of Dec. 31³⁾ proposed

Corporate Governance Report

The Mayr-Melnhof Group pursues a responsible business activity focusing on sustainable profitability in both segments, MM Karton and MM Packaging. In order to ensure this, we pay attention to a consistent compliance with the principles of proper Corporate Governance. They are the basis for the trust our employees, shareholders, customers, suppliers and the public place in the management and control of the Company, pursuing the goal of long-term value creation.

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. In accordance with national and international developments, the Code is regularly reviewed and adjusted accordingly. The applicable version of the Austrian Corporate Governance Code can be downloaded from the website of the Austrian Working Group for Corporate Governance at www.corporate-governance.at. The Company's compliance with the Corporate Governance Code is subject to an annual internal evaluation. Furthermore, every three years an external evaluation of compliance with C rules is carried out, which was performed for 2018 again in order to rotation.

The implementation and evaluation for the business year 2018 is based on the Code's version of January 2018. 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 in 2018:

- | | |
|----------|--|
| 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
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
born 1952

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 Industrieliegenschaftsverwaltung AG, Vienna, 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 since April 29, 2009

born 1961

Chairman of the Supervisory Board of Plansee Holding AG, Reutte, Member of the Supervisory Board of voestalpine AG, Linz (until August 1, 2018), Member of the Supervisory Board of Molibdenos y Metales S.A., Santiago, Chile (until April 17, 2018)

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

Michael SCHWARZKOPF
 Member of the Supervisory Board, voestalpine AG, Linz, Austria (until August 1, 2018)
 Member of the Supervisory Board, Molibdenos y Metales S.A., Santiago, Chile (until April 17, 2018)

Independence of the members of the Supervisory Board

The members of the Supervisory Board have orientated themselves towards the guidelines of the Austrian Corporate Governance Code 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 only 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 2018, the total amount of compensation for the members of the Management Board was thous. EUR 9,017 (2017: thous. EUR 7,302). Thereof, thous. EUR 2,668 (2017: thous. EUR 2,342) were related to fixed compensation and thous. EUR 6,349 (2017: thous. EUR 4,960) to variable compensation. The compensations of the individual members are as follows: Wilhelm Hörmanseder accounts for a fixed compensation of thous. EUR 1,230 and a variable compensation of thous. EUR 2,890, Franz Rappold accounts for a fixed compensation of thous. EUR 482 and a variable compensation of thous. EUR 1,153, Andreas Blaschke accounts for a fixed compensation of thous. EUR 479 and a variable compensation of thous. EUR 1,153, Franz Hiesinger accounts for a fixed compensation of thous. EUR 477 and a variable compensation of thous. EUR 1,153.

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 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 2017 amounted to thous. EUR 475. 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

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 Appointment 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 2018, 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, the main areas of focus were Group strategy, investment and acquisition plans – in particular the acquisition of the Tann-Group –, financing, risk evaluation as well as topics of Corporate Governance, compliance and succession planning. Further core topics were the non-financial report, cyber security, digitalization, and the implementation of the Data Protection Directive. As in previous years, the Supervisory Board has again visited one of the Group's production facilities in 2018.

The Supervisory Board carried out a self-evaluation for the financial year 2018 in regular 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 by-laws, 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 2018. All participants had sufficient opportunity for questions and discussions.

Focus of the Committees of the Supervisory Board

In 2018, the Presidium (Committee for Management Board Issues) met eight times. It dealt in particular with Group strategy, acquisitions as well as matters relating to the Management Board, and prepared the meetings of the Supervisory 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 2018, the Audit Committee held four meetings and fulfilled its statutory duties. One focus was placed on dealing with the Group financial statements and the individual financial statements for 2017 as well as the preparation of the Group financial statements and the individual financial statements for 2018. In this context, legislative changes, such as the report pursuant to Article 11 of Regulation (EU) No 537/2014 and the non-financial report according to section 267 a of the Austrian Commercial Code, were discussed, details concerning the scope of non-auditing services rendered by the auditors as well as the key audit matters were determined. Another focus was placed on the selection process for assigning the audit of the annual financial statements of 2019 for the whole Group.

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 laid down in the Code of Conduct. It is stated 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 Equality Act for Women and Men has been applied to new appointments to the Supervisory Board since the beginning of 2018. The Supervisory Board currently comprises ten men, and the Management Board four.

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 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. We nevertheless 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

An external evaluation of the Company's compliance with the C rules (Comply or Explain) 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, February 28, 2019

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p.

Franz Hiesinger m. p.

Franz Rappold m. p.

Report of the Supervisory Board

In the financial year 2018, the Supervisory Board fulfilled its responsibilities pursuant to statutory provisions and the Articles of Association. In addition to analyzing ongoing business development, the main areas of focus were the Group strategy, investment and acquisition plans – in particular the acquisition of the Tann-Group –, financing, risk evaluation as well as topics of Corporate Governance, compliance and succession planning. Further core topics were the non-financial report, cyber security, digitalization, and the implementation of the Data Protection Directive.

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.

In the meetings of the Supervisory Board and the Committees, there was always sufficient opportunity to discuss individual agenda items and timely submitted documents in detail.

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.

During the financial year 2018, 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 eight times, the Audit Committee chaired by Romuald Bertl met four times.

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

The annual financial statements and the management report of Mayr-Melnhof Karton AG for the year ending December 31, 2018 including accounting were audited by Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft. 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 2018.

In the course of the audit of the annual financial statements 2018, an evaluation of compliance with the C Rules of the Austrian Corporate Governance Code was carried out. It confirmed that the declaration given by Mayr-Melnhof Karton AG regarding compliance with the Corporate Governance Code in the version of January 2018 corresponds to the actual conditions.

The Supervisory Board concurs with the annual financial statements, the management report, the corporate governance report, the 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, 2018. Thus, the 2018 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 2018.

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 2018.

Vienna, March 2019

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 in focus

The production and sale of cartonboard as well as the processing of cartonboard into consumer goods packages form the core business of the Mayr-Melnhof Group. Both business areas are managed as divisions that are responsible for their own results and carry out business with 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 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 the most important raw material used for the production of folding carton packaging. Folding cartons are, besides plastics, the most important packaging material for consumer staples. Demand for our products correlates with the development of private consumption, especially of consumer staples. Due to transport costs and logistical challenges, 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 plays a minor role.

Two profit centers

Similar to the previous year, MM Karton supplied in 2018 around 12 % of its cartonboard sales to MM Packaging at arm's length conditions. The majority of its production, however, is sold to folding carton producers outside the Group and directly to consumer goods manufacturers. MM Packaging buys around one quarter of the tonnage processed internally from MM Karton. However, the major share of the required cartonboard is purchased from external suppliers. Reasons are the limited internal supply of virgin fiber-based cartonboard as well as market conditions and specifications by customers concerning particular cartonboard grades.

Focus on Europe – global growth orientation

The geographic focus of our business is the developed European market, where both divisions have been market leader for a long time. Here, our growth course is driven by further penetration of existing market segments as well as the exploitation of new sales opportunities. Furthermore, we pursue an expansion and acquisition strategy at a global scope with the aim of achieving a leading position in attractive markets and to expand this further. By focusing on an attractive value added as well as the combination of organic growth and acquisitions in the areas of our core business, we strive for profitable growth at a manageable risk over the long term.

"Best practice" for sustainable profitability and development

Markets for cartonboard packages are attractive and thus face intense competition. We therefore focus on economies of scale and the continuous implementation of "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. Thereby, we ensure a good standard at our locations and timely initiate corrective actions. We constantly invest in progress and strengthening the competitiveness using state-of-the-art technologies as well as in the continuous development of our employees to exploit new opportunities in time.

MAYR-MELNHOF KARTON

Leading in coated recycled fiber-based cartonboard

MM Karton produces a wide range of cartonboard products at seven European locations with a total annual production capacity of more than 1.7 million tons. Coated recycled fiber-based cartonboard accounts for approx. 80 % of the annual 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, with a production share of approx. 20 %. Around 74 % of the fibers used are recycled fibers which are purchased from external suppliers. Another approx. 20 % 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 6 % of the fiber demand.

Cartonboard for consumer goods packaging

Cartonboard products of MM Karton are used in the production of packages in numerous markets. They are mainly used for packages for consumer staples. Due to the division's size and a broad range of standard and special qualities, MM Karton is a full-scale supplier and covers a diversified range of possible applications. 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 are at the center of constant product development and innovation activities. MM Karton thereby pursues a holistic approach and 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 services are the focus of our portfolio. Furthermore, MM Karton offers a high degree of supply reliability, as it is possible to deliver the same products from several cartonboard mills (multi-mill concept). 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 top layer for the corrugated board industry in low grammage) – have been set up as separate units within the sales organization.

Plastics are the most important competitive product for cartonboard in the field of packaging with a high dependency on the price of crude oil and a broad variety of application specializations. Interaction between these two principal packaging materials has so far been limited to fringe areas owing to their different properties and functionality. However, in light of discussions on the substitution of plastics, increasing attention is paid to examining new possibilities for the use of cartonboard.

Main market Europe – 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, Europe is MM Karton's main market, where it distributes around 82 % of its sales volume. Another 18 % are sold to countries outside Europe. In addition to its leading market position in Europe, MM Karton thereby accounts for the largest share of cartonboard exports from Europe. More than 1,000 customers are supplied worldwide. These are primarily printing businesses in the medium-sized and highly fragmented European folding carton industry. The influence of consumer goods producers and retailers on buying decisions for cartonboard has increased significantly for years. In response to this trend, MM Karton positions itself through a broad customized range of products and services, size as well as comprehensive expertise and solution capability.

“MMK digital” – digital sales and service channel

With “MMK digital”, MM Karton has taken a pioneering role in digitalization in the cartonboard industry, setting new standards in terms of speed and communication. For the first time, customers can perform all business processes with MM Karton in just a few seconds online and securely in real time, around the clock, seven days a week. Customers can complete all the steps themselves online at any time – from the selection of cartonboard quality and production forecast as well as ordering to call-off from the warehouse. “MMK digital” has been available to customers since the end of March 2018 and has achieved a high level of acceptance.

Concentrated production at specialized locations and machines

The production of coated cartonboard for packaging is a capital-intensive industrial process. Therefore, MM Karton has for a long time concentrated production on high-performance cartonboard machines in order to exploit efficiencies of scale. Production is currently performed on nine cartonboard machines at seven European locations in four countries: Germany, Austria, Slovenia, and the Netherlands. Each of the machines specializes in specific recycled or virgin fiber-based cartonboard product qualities. The machines in the Slovenian cartonboard mill provide special features as they are flexibly producing both cartonboard qualities.

Recycled fibers – the most important raw material 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 further significant input factors. The application of a coating made from chalk, fillers, and binders to the outer surface of cartonboard allows for high-quality printing.

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 recycling quotas in Europe and existing reserves, 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 – continuing strong competition

According to our estimates, the total recorded global consumption of cartonboard amounts to approx. 62 million tons per year, more than half of which is accounted for by Asia and around one fifth each by America and Europe.

The concentration of the cartonboard industry in Europe is already far advanced. Thus, 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. The three largest Scandinavian suppliers operate exclusively in the area of virgin fiber-based cartonboard. Moreover, the MM Group is the only European cartonboard producer with an additional mainstay in folding carton production, the following step in the value added chain.

With regards to recycled fiber-based cartonboard, the capacity growth in Europe has been achieved through a continuous technological modernization of existing mills (“creeping capacity increase”) for 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.

Product development and competitive strength – MM Karton’s drivers

Cartonboard has a high attractiveness due to its wide range of possible applications and its economic and ecological advantages. For this reason, MM Karton focuses on continued growth in recycled and virgin fiber-based cartonboard while maintaining an attractive result quality. We will pursue our path with a high degree of discipline and prioritize maintaining our prices over volumes as hitherto. We will continue to create new capacities primarily in our existing mills. Our production facilities, development, technology as well as sales organization are very well positioned for this path.

We focus on achieving a reduction in unit costs and strengthening our market position by using state-of-the-art technology as well as improved and innovative products and services. Our investment activity remains continuously concentrated on this.

MAYR-MELNHOF PACKAGING

Leading folding carton producer

The core business of MM Packaging focuses on folding cartonboard packages for consumer staples. In 2018, we have processed around 766,000 tons of recycled and virgin fiber-based cartonboard and paper into more than 60 billion individual packages. MM Packaging is thus the leading producer of folding cartons in Europe and one of the largest worldwide.

The production of corrugated cardboard is a separate industry with fundamentally different products and markets in which we do not operate. Overlaps are mainly limited to micro-flute consumer packages, which are also produced at a few specialized MM Packaging locations.

Growing international location network

Transport costs and service requirements clearly limit the supply radius of folding cartons, which are thus defined as regional products. With an international network of 37 production plants in 15 countries, MM Packaging offers a unique pan-European supply concept and, moreover, has a leading position in individual countries in the Middle East, Latin America, and the Far East. With this broad geographical structure, we are able to offer our multinational customers increasingly more global delivery opportunities.

Europe is MM Packaging's geographical concentration and primary sales market, with a share in sales of around 89 %. Moreover 6 % are accounted for by Latin America and 5 % by the Middle East/Asia. Recent expansion projects outside Europe primarily involved the development of our plants in Jordan, Iran, and Vietnam. The aim thus consists in continuing to support our customers in their expansion with modern local production plants.

Broad sales range – balance and potential

Within the packaging market for consumer staples, MM Packaging covers a wide range of sectors, thus creating potential and balance. The technological facilities of the production plants and the account management are therefore aligned to meet the individual market and product requirements. Accordingly, MM Packaging's business covers the volume market of fast-moving consumer goods (FMCG) as well as the highly specialized markets of packages for cigarettes, pharmaceuticals, detergents, and personal care. We hold a unique position in Europe through combining a variety of end markets and company size.

Around three quarters of MM Packaging's sales are accounted for by large multinational consumer goods manufacturers. The remaining part of the business is local. In total, MM Packaging sells products to about 1,500 customers, and has been growing ever since, both organically as well as through acquisitions.

Broad technological basis

The production of folding cartons is subdivided into 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 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 in a folded state. The packages are then usually filled with consumer goods by the customers' packing systems.

MM Packaging uses all common state-of-the-art preprinting, printing, and finishing technologies. In accordance with our aspiration for "best practice" in efficiency and quality, we constantly improve our products and processes and invest in new technologies. We regularly create spaces for innovation, often in close cooperation with our customers, aimed at operational and technological leadership. We therefore currently pay intensified attention to topics of automation and digitalization.

Essential raw material cartonboard

The production of folding cartons starts with cartonboard as a raw material, constituting both the most important input and cost factor at the same time. The choice of 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. The purchase of cartonboard for large international business operations is also decided 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.

Besides cartonboard and paper, other important input factors include inks, varnishes, and tools. The ratio of personnel costs to sales in folding carton production is generally higher than in cartonboard production.

Focus on cost leadership

MM Packaging has for a long time pursued strategical differentiation through industrial production in the European folding carton industry, which is largely dominated by trade businesses. 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 are major characteristics of this.

MM Packaging's guiding principle is the establishment of the "perfect factory". We therefore attach highest 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 state-of-the-art. Moreover, we focus on sales-market-specific innovation and specialization initiatives aiming at maintaining 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. The five largest suppliers account here for one third of the market volume. Market barriers are generally lower, resulting in an ongoing intensive competitive environment.

Long-term growth course

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

Outside Europe, the strategy remains focused on occupying a significant position in future markets on time, with the aim of securing the greatest possible potential at a manageable risk. The main focus of existing production sites outside Europe lies on generating further growth and optimizing the size of operations.

The acquisition course remains characterized by opportunities as hitherto. MM Packaging strives for continuing its expansion course, in a risk-conscious way, guided by value creation and striving for a sustainably high quality of results.

2 — DEVELOPMENT IN THE YEAR 2018

GENERAL ECONOMIC SITUATION

A noticeable change of mood clouded from the middle of the year the positive picture of the global economy seen at the beginning of the year 2018. Besides trade conflicts, for example between the USA and China, increased crude oil prices and a slowdown in the growth rates of important emerging economies like China were decisive for this. Moreover, there were dampening effects in the Euro area resulting from uncertainties surrounding Brexit and recent sobering economic news. In the course of this, growth forecasts for Europe's economic engine, Germany, were continuously withdrawn for 2018 as well as 2019. In contrast to this, a good capacity situation and the improved situation on the labor market continued to support private consumption as an important pillar of the economy. At the same time, however, persistent inflation, particularly as a result of increases in collective wage agreements as well as in transportation and energy prices, represented a constant challenge for industries.

INDUSTRY DEVELOPMENT

In line with the overall economy, the situation on the European cartonboard and folding carton markets was characterized by high demand dynamics until the middle of the year that slowed down again in subsequent months. The second half of the year was marked by greater caution in planning especially due to a well-stocked supply chain. This led to a further increase in competitive intensity.

On the fiber markets, the decline in prices for mixed recovered paper grades as a result of lower exports from Europe to Asia was followed by a slight increase from the middle of the year driven by demand. In contrast, products based on virgin fibers like pulp were marked by a continuing strong upward trend in prices. Passing on prior cartonboard price increases constituted a challenge in cartonboard processing. Furthermore, higher costs for energy and transportation and collective wage increases particularly contributed to general cost inflation. Following capacity increases in the area of virgin fiber-based cartonboard in Europe in the recent past, capacity growth in the European cartonboard industry was restrained in 2018 and thus mainly focused on "creeping capacity increase" through ongoing investment activity. Capacity utilization therefore developed at an overall good level. The trend towards lighter packages and special solutions with particular functionality continued. The public discussion on the topic of plastics substitution drew greater attention to fiber-based packages but did not lead directly to any boost in demand. In the generally positive market environment, the consolidation process in the still very fragmented European folding carton market remained subdued. Hence there were no major changes in the supplier structure.

DEVELOPMENT OF BUSINESS 2018

GROUP

The Mayr-Melnhof Group was able to conclude the year 2018 with a further profit increase in succession. A strong development in the first three quarters contrasted with a noticeable market- and production-related decrease in volumes in the final quarter, which reduced the lead over the previous year. The company nevertheless succeeded in maintaining capacity utilization and volumes at a high level on a whole year perspective. The cartonboard division was the main driver of profit growth, in particular as a result of improved average prices. In contrast, a sharp rise in input costs, in particular for cartonboard, put pressure on the margin, as this increase could only be passed on with delay.

In line with the sound profit development, a recommendation will be made to the 25th Ordinary Shareholders' Meeting on April 24, 2019, to increase the dividend for the financial year 2018 to EUR 3.20 per share (2017: EUR 3.10).

With the acquisition of the Tann-Group, which was successfully closed on January 15, 2019, MM Packaging took an important growth step. Tann prints and finishes bought-in fine paper into cigarette filter paper (tipping paper) and is the global market leader in this field technologically related to MM Packaging. The aim is to expand value added and strengthen the profitability of MM Packaging as well as to achieve further growth.

Consolidated income statements

Consolidated income statements (condensed version)

(in millions of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017	+/-
Sales	2,337.7	2,336.8	+ 0.0 %
Operating profit	217.1	215.0	+ 1.0 %
Financial result and result from investments	0.8	(9.5)	
Income tax expense	(53.7)	(50.5)	
Profit for the year	164.2	155.0	+ 5.9 %

Consolidated sales of the Group totaled EUR 2,337.7 million and thus were at previous year's level (2017: EUR 2,336.8 million). A price-related increase in sales at the cartonboard division contrasts with a slight decrease at the packaging division. In the geographical distribution of sales, the shares of Western and Eastern Europe, at 59.5 % and 27.0 %, respectively, were slightly higher, while the share of business outside Europe changed to 13.5 % (2017: 58.9 %; 26.1 %; 15.0 %). Intra-group sales amounted to EUR 108.7 million (2017: EUR 104.7 million) and were mainly connected to deliveries from MM Karton to MM Packaging.

Group sales by destination

(in %)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Western Europe (excl. Austria)	57.3 %	56.6 %
Austria	2.2 %	2.3 %
Eastern Europe	27.0 %	26.1 %
Asia and MENA	7.2 %	8.2 %
Latin America	4.9 %	5.3 %
Other	1.4 %	1.5 %
Total	100.0 %	100.0 %

Cost of sales

(in millions of EUR)	Percentage of sales				
	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017	+/-	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Cost of materials and purchased services	1,304.0	1,328.6	- 1.9 %	55.8 %	56.9 %
Personnel expenses	313.0	313.3	- 0.1 %	13.4 %	13.4 %
Depreciation and amortization	96.0	89.2	7.6 %	4.1 %	3.8 %
Other expenses	77.1	72.6	6.2 %	3.3 %	3.1 %
Cost of sales	1,790.1	1,803.7	- 0.8 %	76.6 %	77.2 %

Cost of sales for operating performance, at EUR 1,790.1 million, were EUR 13.6 million or 0.8 % below the comparative value of the previous year (2017: EUR 1,803.7 million). This decrease was primarily due to overall lower fiber costs. The share in sales changed analogously from 77.2 % to 76.6 %.

Selling and distribution, administrative and other operating expenses

(in millions of EUR)	Percentage of sales				
	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017	+/-	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Personnel expenses	131.9	133.2	- 1.0 %	5.6 %	5.7 %
Depreciation and amortization	11.3	10.5	7.6 %	0.5 %	0.4 %
Other expenses	200.0	191.6	4.4 %	8.6 %	8.2 %
Selling and distribution, administrative and other operating expenses	343.2	335.3	2.4 %	14.7 %	14.3 %

Selling and distribution costs, administrative and other operating expenses rose to EUR 343.2 million (2017: EUR 335.3 million). Their share in sales was maintained largely constant at 14.7 % (2017: 14.3 %).

At EUR 217.1 million, an operating profit above the previous year's level was achieved (2017: EUR 215.0 million). A significant profit increase at the cartonboard division contrasted with a decrease at the packaging division. The Group's operating margin reached 9.3 % (2017: 9.2 %), the return on capital employed 15.5 % (2017: 15.1 %).

Financial income of EUR 1.3 million (2017: EUR 2.0 million) contrasted with financial expenses of EUR -6.1 million (2017: EUR -6.2 million). "Other financial result – net" went up to EUR 5.6 million (2017: EUR -5.3 million), in particular as a result of foreign currency gains, after one-time expenses due to accumulated currency translations of EUR 2.6 million had been reported in the previous year following the deconsolidation of subsidiaries.

Profit before tax increased by 6.0 % to EUR 217.9 million (2017: EUR 205.5 million). Income tax expenses totaled EUR 53.7 million (2017: EUR 50.5 million), with the effective Group tax rate for 2018 remaining constant at 24.7 % (2017: 24.6 %).

Profit for the year, earnings per share

Profit for the year rose by 5.9 % to EUR 164.2 million (2017: EUR 155.0 million). The net profit margin at 7.0 % (2017: 6.6 %) was thus slightly higher than in the previous year. Based on an unchanged total average of 20,000,000 shares outstanding and a profit for the year attributable to the shareholders of the Company amounting to EUR 163.7 million (2017: EUR 154.6 million), earnings per share were at EUR 8.18 (2017: EUR 7.73).

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, 2018	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017	Year ended Dec. 31, 2017
Origin:				
Sales	2,337.7		2,336.8	
Other operating income	12.7		17.2	
Change in finished goods and own work capitalized	4.6		4.5	
Financial result and result from investments	0.8		(9.5)	
Total operating revenue	2,355.8		2,349.0	
(-) Expenditures on purchased goods and services	(1,578.0)		(1,590.1)	
(-) Depreciation and amortization	(107.3)		(99.7)	
Net value added	670.5	100.0 %	659.2	100.0 %
Distribution:				
Employees	(257.4)	(38.4 %)	(260.0)	(39.4 %)
Social benefit costs	(127.3)	(19.0 %)	(127.1)	(19.3 %)
Public authorities	(121.6)	(18.1 %)	(117.0)	(17.8 %)
Non-controlling (minority) interests	(0.5)	(0.1 %)	(0.5)	(0.1 %)
Shareholders' dividend (proposed for 2018)	(64.0)	(9.5 %)	(62.0)	(9.4 %)
Company	99.7	14.9 %	92.6	14.0 %

In the financial year 2018, the Group generated a total operating revenue of EUR 2,355.8 million, which was higher than that of the previous year (2017: EUR 2,349.0 million). After deduction of expenditures on purchased goods and services as well as depreciation and amortization totaling EUR 1,685.3 million (2017: EUR 1,689.8 million), the net value added amounts to EUR 670.5 million (2017: EUR 659.2 million).

With 38.4 % or EUR 257.4 million (2017: 39.4 %; EUR 260.0 million), the major share of the net value added was again distributed to our employees. A similarly large proportion of 37.1 % or EUR 248.9 million (2017: 37.1 %; EUR 244.1 million) was paid to public authorities and social insurance. The shareholders of the Company are to receive a dividend of EUR 64.0 million or 9.5 % of the net value added (2017: EUR 62.0 million; 9.4 %) for the financial year 2018. A profit of EUR 99.7 million or 14.9 % of the net value added will be retained within the Group (2017: EUR 92.6 million; 14.0 %).

Assets, capital, and liquid funds

Consolidated balance sheets (condensed version)

(in millions of EUR)	Dec. 31, 2018	Dec. 31, 2017
Non-current assets	1,003.8	1,013.1
Current assets	1,061.9	1,000.3
Total assets	2,065.7	2,013.4
Total equity	1,384.8	1,318.6
Non-current liabilities	307.6	327.6
Current liabilities	373.3	367.2
Total equity and liabilities	2,065.7	2,013.4

As of December 31, 2018, the Group's total assets amounted to EUR 2,065.7 million and were thus EUR 52.3 million higher than the respective figure at the end of 2017 (December 31, 2017: EUR 2,013.4 million). The Group's total equity rose from EUR 1,318.6 million to EUR 1,384.8 million, mainly as a result of profit. Total equity to total assets was therefore at 67.0 % (December 31, 2017: 65.5 %), return on equity at 12.1 % (December 31, 2017: 12.0 %).

Financial liabilities at EUR 211.7 million (December 31, 2017: EUR 212.5 million) remained almost unchanged and are primarily of a long-term character. Provisions for non-current liabilities and charges related to accruals for employee benefits decreased to EUR 115.9 million (December 31, 2017: EUR 121.4 million).

Total funds available went up to EUR 261.1 million (December 31, 2017: EUR 200.7 million), resulting in the Group reporting a net liquidity of EUR 49.4 million (December 31, 2017: net debt of EUR 11.8 million) at the end of 2018. Furthermore, credit lines totaling EUR 392.9 million (December 31, 2017: EUR 399.5 million) were available to the Group and can be used at any time.

At EUR 1,003.8 million, non-current assets were slightly below the previous year's value (December 31, 2017: EUR 1,013.1 million) as a result of lower capital expenditures and slightly higher depreciation and amortization. Current assets rose to EUR 1,061.9 million from EUR 1,000.3 million at the end of 2017, mainly due to an increase in cash and cash equivalents.

Cash flow development

Consolidated cash flow statements (condensed version)

(in millions of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Net cash from operating activities	250.1	217.2
Net cash from investing activities	(119.0)	(154.4)
Net cash from financing activities	(69.3)	(114.5)
Effect of exchange rate changes	1.3	(1.5)
Net change in cash and cash equivalents (< 3 months)	63.1	(53.2)
Cash and cash equivalents (< 3 months) at the end of the year	261.0	197.9
Current and non-current securities	0.1	2.8
Total funds available to the Group	261.1	200.7

Cash flow from operating activities reached EUR 250.1 million and was thus EUR 32.9 million higher than the previous year's figure (2017: EUR 217.2 million). The profit increase and a lower growth in working capital compared to the previous year were the main contributing factors in this connection.

Cash flow from investing activities changed from EUR -154.4 million to EUR -119.0 million. This difference primarily results from lower payments for the purchase of property, plant and equipment and intangible assets amounting to EUR 130.0 million after EUR 150.8 million in 2017.

Investment expenditures at MM Karton amounting to EUR 75.8 million (2017: EUR 60.3 million) were mainly related to technical modernization and expansion with focal points on the Frohnleiten mill in Austria and the German Neuss mill as well as on the market launch of the digital sales and service channel "MMK digital".

Investment expenditures at MM Packaging totaled EUR 54.2 million (2017: EUR 90.5 million) with a particular focus on upgrades to machinery in Russia, Poland, Germany, Austria, Romania, and Turkey.

Cash flow from financing activities changed from EUR -114.5 million to EUR -69.3 million mainly due to the repayment of loans in the previous year.

Further information

In mid-October 2018, the division MM Packaging reached an agreement with the owners of the Tann-Group on the complete acquisition of the group of companies headquartered in Traun, Austria. The acquisition was successfully closed on January 15, 2019, and will be integrated into the MM Group in the first quarter of 2019. The preliminary purchase price amounts to around EUR 270 million. At the time of initial consolidation in the Group, non-cash one-off expenses from valuation effects will be accounted for, however beside the good current result of Tann.

The Tann-Group prints and finishes bought-in fine paper into cigarette filter paper (tipping paper) and is the global market leader in this field. With eight production sites in seven countries and about 1,100 employees world-wide, the group generates annual sales of around EUR 230 million.

Through this acquisition, MM Packaging extends its existing production of cigarette packages by the technologically related manufacture of tipping paper. Due to technological similarities and the existing long-standing cooperation with the same top-customers, the company strategically fits into the MM Packaging division.

Detailed information is reported in the consolidated financial statements under note 32 "Significant subsequent events".

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 deferred taxes.

Cash earnings margin

Cash earnings divided by sales.

Employees

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

Total equity to total assets

Total equity divided by total assets.

Net debt/net liquidity

The sum of interest-bearing current and non-current financial liabilities, including liabilities from finance lease less cash and cash equivalents as well as current and non-current securities. If the sum of cash and cash equivalents and securities 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)

Profit before tax, excluding net interest income/expenses and excluding the respective profit attributable to non-controlling (minority) shareholders according to IAS 32 divided by the sum of average total equity, average current and non-current interest-bearing financial liabilities, including liabilities from finance lease, 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 as well as current and non-current securities.

Return on equity (ROE)

Profit for the year divided by average total equity.

Sheet equivalent

Production volume in sheets of offset printing and running meters of gravure and flexographic printing converted into a standardized unit.

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

BUSINESS DEVELOPMENT IN THE DIVISIONS

MM Karton

Good demand characterized development on the European cartonboard markets in the first three quarters of 2018. However, this was followed by a noticeable weakening in the final quarter due to seasonal factors and the filled supply chain.

On procurement markets, a fall in prices for mixed recovered paper qualities due to reduced exports from Europe to Asia, contrasted with a sharp price increase for virgin fiber-based products, with the need to adjust prices for virgin fiber-based cartonboard.

MM Karton was able to maintain its position very well in 2018 through better prices, a sound volume development, and an optimized product portfolio and concluded the year with a significant increase in profit compared to the previous year. We continued to implement our proven strategy of a disciplined price policy while maintaining market shares.

With “MMK digital”, MM Karton provided the first digital sales and service channel in the cartonboard industry in spring 2018, which has been received with high customer acceptance on the market right from the beginning.

The average order backlog totaled 77,000 tons and was thus below the previous year's level (2017: 85,000 tons). At 97 %, capacities in the division were however still well utilized (2017: 98 %).

Cartonboard production, at 1,664,000 tons, was 1.2 % below the previous year (2017: 1,685,000 tons). 1,313,000 tons (79 %) thereof were attributable to recycled fiber-based cartonboard and 351,000 tons (21 %) to virgin fiber-based cartonboard (2017: 1,345,000 tons or 80 % and 340,000 tons or 20 %, respectively). Based on the average number of employees, 663 tons per employee were produced (2017: 664 tons). Cartonboard sold developed in line with production, totaling 1,663,000 tons (2017: 1,675,000 tons).

Sales increased, driven by prices, from EUR 1,048.7 million to EUR 1,062.2 million. With a share of around 63 % in Western Europe (2017: 62 %) and 21 % in Eastern Europe (2017: 21 %), slightly more was sold on the European markets, thus the sales share in countries outside Europe decreased to 16 % (2017: 17 %).

Operating profit increased significantly by 31.2 % or EUR 22.9 million to EUR 96.4 million compared with the previous year (2017: EUR 73.5 million) owing to better average prices and lower direct costs. The operating margin amounted to 9.1 % after 7.0 % in 2017, the return on capital employed was 16.1 % (2017: 12.7 %). Cash earnings totaled EUR 115.6 million (2017: EUR 100.3 million), with a cash earnings margin of 10.9 % (2017: 9.6 %).

Divisional indicators MM Karton

(in millions of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017	+/-
Sales ¹⁾	1,062.2	1,048.7	+ 1.3 %
Operating profit	96.4	73.5	+ 31.2 %
Operating margin (%)	9.1 %	7.0 %	
Return on capital employed (%)	16.1 %	12.7 %	
Tonnage sold (in thousands of tons)	1,663	1,675	- 0.7 %
Tonnage produced (in thousands of tons)	1,664	1,685	- 1.2 %

¹⁾ including interdivisional sales

MM Packaging

European packaging demand for consumer goods was high from the beginning of 2018 and showed just in the fourth quarter a noticeable weakening as a result of a successive reduction in stocks along the supply chain. Competitive intensity remained very high, as capacities in the industry continued to be sufficient.

Against this background, it was largely possible to maintain plant capacity utilization at a high level. At the same time, however, the margin was under pressure due to previous cartonboard price increases and further cost rises, especially for transport and logistics, since corresponding price increases are difficult to be realized in the market or are only possible with delay. While the efficiency gains achieved in the course of rationalization programs were able to alleviate the pressure on the result, they could not fully compensate these developments.

The strategic focus of maintaining strength and exploiting growth opportunities in individual markets such as FMCG (fast-moving consumer goods), cigarette packaging, pharmaceuticals as well as personal care with dedicated locations on the basis of maximum cost efficiency and quality was pursued consistently and implemented in the course of the investment program. High priority was attributed to automation and digitalization projects.

Tonnage processed, at 766,000 tons, was close to the previous year's figure (2017: 767,000 tons). The sheet equivalent developed largely in parallel to this, with 2,270.7 million sheets in 2018 after 2,289.9 million sheets in the previous year. Based on the average number of employees, the sheet equivalent per employee increased from 316 thousand to 318 thousand and underlines the continuous increase in efficiency at MM Packaging.

At EUR 1,384.2 million, sales developed steadily compared to the previous year (2017: EUR 1,392.7 million). The geographical distribution of sales was also characterized by continuity, with 57 % and 32 % accounted for by Western and Eastern Europe, respectively, and 11 % by business outside Europe (2017: 58 %; 30 %; 12 %). MM Packaging supplies around 1,500 customers in various consumer goods sectors. Packages for food and cigarettes were the main areas of sales also in 2018. In line with the high degree of producer concentration in these markets, a great share of business is generated with multinational

customers. Accordingly, around 41 % of sales were achieved with the five largest customers in 2018 (2017: 40 %).

The decrease in operating profit by 14.7 % to EUR 120.7 million (2017: EUR 141.5 million) resulted primarily from the significant increase in direct costs.

The operating margin accordingly amounted to 8.7 % (2017: 10.2 %). The return on capital employed reached 15.1 % (2017: 16.7 %). Cash earnings totaled EUR 154.1 million (2017: EUR 156.8 million), while the cash earnings margin was 11.1 % (2017: 11.3 %).

Divisional indicators MM Packaging

(in millions of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017	+/-
Sales ¹⁾	1,384.2	1,392.7	- 0.6 %
Operating profit	120.7	141.5	- 14.7 %
Operating margin (%)	8.7 %	10.2 %	
Return on capital employed (%)	15.1 %	16.7 %	
Tonnage processed (in thousands of tons)	766	767	- 0.1 %
Sheet equivalent (in millions)	2,270.7	2,289.9	- 0.8 %

¹⁾ including interdivisional sales

3 — RESEARCH AND DEVELOPMENT

The goal of the research and development activities of the Mayr-Melnhof Group consists in long-term safeguarding and strengthening competitiveness and progress in the two divisions MM Karton and MM Packaging. Our strategic direction, market leadership based on cost and technology leadership determines our path. Starting point of the innovation activity is identifying market needs and future trends at an early stage and exploiting them by using the best possible technologies to provide the benefits of the thus created added value for the market and the Company. Thereby we regularly include aspects of the entire supply chain and also examine opportunities which go beyond the conventional areas of application of our products.

Innovation management – networked collaboration within the Group

The focused collaboration of experts from different areas of the Group with access to a knowledge base built up over many years forms the basis of our R&D activities. Moreover, external specialists and research institutions are involved when appropriate. An innovation organization has been established in both divisions to accompany the process systematically from the generation of ideas to implementation with the relevant resources required. Attention is given in equal measure to product and process innovations, with the common goal of bringing innovations rapidly to market and thereby generating added value from this in a timely manner.

We aspire 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. Close cooperation with standardization and legislative bodies contribute to our products always being further developed in anticipation of compliance with regulations.

Efficient at implementing new requirements

Sustainability, convenience, safety and online sales are the requirements currently characterizing the packaging industry, in addition to trends towards naturalness, unconventional forms, simplicity, and plastics-free packages. Working closely together with our customers, we include these aspects in the development of individual solutions and ensure maximum performance and efficiency in their implementation.

Innovation activity in the MM Karton division in 2018

Primary emphasis of MM Karton's innovation activities in the product area is placed on continuous improvement of qualitative parameters like visual appearance, printability, stiffness, barriers, and efficiency in high-performance processing of cartonboard, and, at the same time, on new state-of-the-art grades in line with market requirements. Projects related to basic research are rendered and coordinated by the R&D center located in the Austrian cartonboard mill at Frohnleiten and also performed for third parties, in particular customers.

In 2018, special emphasis was again placed on the formulation and application of functional barriers (e.g. grease and migration barriers), especially using new raw materials and exploiting innovative application methods. In addition, a modern laboratory information system has been set up.

Young products – significant share of sales

Through close cooperation between our sales and engineering departments and customers, new, innovative products account for a share of around one fifth of the total sales volume of MM Karton. The aim is to further increase this share. This development is underpinned by the “Renovation” project which repositions the products of individual mills for specific markets and applications, with the strategy of sustainably increasing the value added and competitiveness of MM Karton through value creation. New features in 2018 related in particular to the following products:

Topcolor™ Grease 5-7 from the Frohnleiten mill is a recycled fiber-based cartonboard with an effective and environmentally friendly grease barrier that is approved for direct contact with dry and greasy foods. Through a high-quality top and reverse side the cartonboard is the customized quality for the attractive market of fast food and food service.

Excellent Top™ Freeze Quick Release is a new quality of virgin fiber-based cartonboard from the Baiersbronn mill that prevents food from adhering to the packaging material. This grade of cartonboard thereby guarantees a clean presentation of the product in connection with practical handling.

Excellent Top™ Brown (virgin fiber-based kraft cartonboard) and Browncolor (recycled fiber-based cartonboard) from the Kolicveo mill are characterized by brown color and thus represent the modern packaging material for communicating naturalness and sustainability at the point of sale.

The offset qualities MM Liner™ from the Kolicveo mill and MM Topliner™ from the mill in Neuss are made available in grammage ranges between 180 and 210 g/m², enabling MM Karton to completely satisfy a frequent market demand.

"MMK digital" – high customer acceptance

The new sales and service channel "MMK digital" has been actively used by a growing number of customers since its market launch at the end of March 2018. This innovative service offering has been accompanied by positive feedback and high interest since its inception. Additional forward-looking and helpful features are further increasing the attractiveness.

Award for FOODBOARD™ virgin fibre

FOODBOARD™ virgin fibre, the first virgin fiber-based cartonboard that offers innovative barrier protection against mineral oil and other defined unintended substances was honored with the Recyclable Packaging Award from Packaging Europe. Safety and environmental friendliness were significant criteria for this.

Innovation activity in the MM Packaging division in 2018

Bundled innovative power

“The plus in innovation” – this is the guiding principle under which MM Packaging is bundling its interdisciplinary expert teams in the newly established innovation organization Innovation[+]Plus. Innovation[+]Plus is seen as an interface to the customers and offers tailored services for products and processes with access to the entire expertise of the MMP innovation network. MM Packaging’s innovation organization comprises the following institutions: PacProject, the creative Innovation Center in Hamburg, the Premium Printing Center in Trier, the Technical Competence Center for coordinating specific client briefings, and local Packaging Development Centers of the individual production sites.

A technical account manager performs the management function in individual projects, both internally and in relation to the customer. The focus is thus placed on solutions that have been approved by the Divisional Technical Support Team and the production site involved.

Broad range of innovation

MM Packaging aims at offering relevant and convincing solutions in every phase of the innovation process, thus making a significant contribution to the success of the customers on the market. MM Packaging’s innovation team therefore has a broad scope and accompanies customers from the generation of ideas to strategic development of custom design concepts, from consumer insights for boosting a brand to process optimization and its implementation on production machinery.

It is our ambition to set new standards. Using and connecting the latest packaging technologies and in close cooperation with customer communication, we help our customers to acquire competitive advantages and increase the value added created by MM Packaging. Considering our expertise and experience in a wide range of industries, new opportunities in a large number of markets are available.

Innovation partner for sustainability

Sustainability is nowadays a core issue, with fiber-based packaging materials gaining relevance. With a team of designers together with packaging and marketing specialists, MM Packaging provided customers again with new ideas for future sustainable packaging solutions in 2018 in order to reduce the use of plastics. The focus here is placed on the choice of materials, life-cycle analyses, and “design for recycling”. MM Packaging’s ambition is to develop convincing solutions in this highly complex field together with the customer.

1st Carton Austria Award for MM

“Burgerista”, a new type of fast-food packaging made by Mayr-Melnhof Packaging Austria from the Topcolor™ cartonboard grade of MM Karton that unfolds to a practical serving dish when opened, was awarded the 1st Carton Austria Award. A good visual appearance, perfect functional implementation, and environmental friendliness were considered convincing arguments by the expert jury.

4 — RISK MANAGEMENT

In the course of its global activity with a focus on Europe, the Mayr-Melnhof Group is exposed to different general and industry-specific risks. Due to the correlation between demand for cartonboard packages and private consumption, especially the current and expected economic situation has a significant influence on the Group's risk position. In procurement, special emphasis for risk assessment is placed on the development of the markets for fibers and energy. The Group's risk situation for the financial year 2018 and at the beginning of 2019 can be classified as largely unchanged. The risks faced by the Group are still manageable and the Group's continued existence and ability to develop are secured.

Owing to a long-term focus on the two business areas of cartonboard and packaging, the Mayr-Melnhof Group has a solid base to identify potential risks at an early stage and to adequately assess any possible consequences thereof. For dealing with risks, a risk management system has been established. 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 is aimed at limiting substantial risks to an acceptable level by means of suitable measures. Thereby the existence of the Group and its ability to create value should 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 intended to improve the Group's risk position, however without restricting possible opportunities.

The Management Board is responsible for the Group's risk management and defines the risk policy and sets the framework for Group-wide risk management. Overall, the Group's risk policy is characterized by a conservative approach. Risk prevention and risk reduction are given high 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.

In the following, the most significant risk areas to which the Group is exposed are described and the measures to manage these risks are presented.

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 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 48 % of divisional sales with 20 main customers, including MM Packaging. The packaging division supplies printed cartonboard packages to consumer goods manufacturers and generates around three quarters of divisional sales with multinational customers. The level of dependency on individual customers is still classified as manageable.

Customers assess their supplier base and locations network by constant evaluations in order to optimize costs and exploit growth opportunities. This can lead to relocation and new allocation of business. However, the Group's broad positioning in a great number of market segments and the geographical width of market presence contribute to minimizing risk.

A broad range of 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.

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

In both divisions, an innovation management across all locations is implemented with modern R&D capacities which are constantly extended. This allows for a sustainable offer of market-adequate, safe, and innovative products.

Digitalization opportunities receive special attention. In terms of sales, the cartonboard division increasingly exploits the potentials of the new digital sales and service channel "MMK digital". Efforts are being made towards solutions for other fields. Following the trend for lightweight cartonboard packages, MM Karton has extended its range of qualities with low grammages. The topic of substitution of plastics is proactively tackled in customer projects.

Within the framework of the Tobacco Products Directive (TPD2), national legislators have the possibility to insist on packaging units and cigarettes without trademark logos (plain packaging). Besides the outer packaging, tipping paper, tear tapes, and inner liner can also be affected by the national regulations. Introducing a traceability system (track & trace) and the application of a security feature on packages of tobacco products as of 2019 are also connected to the directive. Most of the member states have implemented TPD2; some countries have, however, exceeded the regulations of TPD2 and have resolved or already implemented the introduction of plain packaging (Great Britain, Ireland, and France). In Hungary and Slovenia this is imminent. Thus, a growing number of countries worldwide pursues the implementation of plain packaging or increased warnings on cigarette packages (Canada, Chile, Russia, South Africa, Turkey). In order to assess and minimize risks, a project team has been set up that collaborates closely with cigarette producers. The actual impact of the Tobacco Products Directive, and especially of plain packaging, on the sales development of the MM Packaging division still cannot be finally assessed from today's perspective. The broad geographical sale of cigarette packaging in various countries, also outside the EU, provides, however, an important contribution to minimizing risks.

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, transport, and logistics) for our production, a high solution expertise, and guaranteeing quality while maintaining a sound financial conduct. We therefore focus on continuous benchmarking between the locations, innovations, and sustainable investments in the latest technology. Possibilities of further automation are actively pursued and, among others, accompanied by an own consulting company in the area of robotics and automation. The aim consists in implementing 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 from outside. 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, paper, inks, varnishes, and tools. 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 present 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 for the MM Packaging division is conducted by its own procurement organization with continuous screening of various cartonboard producers.

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.

Basically there is a regulatory risk regarding the availability of emission rights in general and costs incurred in case (additional) emission certificates have to be purchased. The following applies based on current knowledge: Since 2013 up to and including 2020, the volume allocation of CO₂ certificates to the seven cartonboard mills located within the European Union and the fiber mill FollaCell will be largely free of charge. Accordingly, there is an overall sufficient number of CO₂ certificates available for the sites until the end of 2020. However, an examination of the allocation process for the subsequent years (2021 et seq.) by the EU is to be anticipated. This revision is to be expected only by the end of 2019. A reduction of approximately 20 % in CO₂ emissions until 2020 in comparison to the reference year 1990 has been pursued as a political objective by the European Union until now. In this context, free allocations of CO₂ have been reduced since 2013, however, the MM Group has a sufficient quantity.

Human Resources

The Group relies on qualified, motivated, and performance-oriented employees at all levels in order to achieve corporate success. With the aim of tying our employees to the Company in the long run and finding suitable top performers for vacancies, we promote sustainable collaboration through continuous personnel development, education, appropriate remuneration and bonus systems as well as a practiced value and corporate culture. 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, training, and counselling 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 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. Moreover, liquidity risk is counteracted by using qualifying insurance policies in Austria and Germany and a defined benefit pension plan in Great Britain.

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. In the regions of Eastern Europe, South Eastern Europe, Latin America, and Asia, we pursue a policy of minimizing currency risks 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. 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. With regard to the General Data Protection Regulation, appropriate measures have been set to meet the respective requirements in time.

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 deal with the risk area of "Legal Compliance", which comprises all actions and measures geared towards compliance with legal regulations and contractual provisions by the function of a Legal Manager as well as by using a "Legal Compliance System", and, if necessary, by consulting external experts. Our aim consists in preventing increasing risks of infringement of applicable laws and possible sanctions due to ever stricter regulations.

The Group monitors the ongoing developments regarding Brexit (the withdrawal of the United Kingdom from the European Union) and evaluates different scenarios. Resulting risks are classified as manageable.

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 2018:

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 — 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 81 et seq.).

7 — OUTLOOK ON THE FINANCIAL YEAR 2019

This outlook reflects the assessment of the Management Board as of February 28, 2019, and does not take into consideration the effects of any possible acquisitions, disposals, or other structural changes in 2019. 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.

Since the beginning of 2019, demand for cartonboard packaging has once again normalized following the weakening in the fourth quarter of last year, though without any noticeable momentum. Against this background, the plants are reporting overall good capacity utilization, however competition in the markets remains very intense.

The price increase for virgin fiber-based cartonboard announced by MM Karton as a result of higher prices for pulp and groundwood pulp took effect at the beginning of the year. In contrast, a continuous pricing policy is pursued for recycled fiber-based cartonboard due to stable recovered paper markets. The focus at MM Packaging remains on passing on increases in input factors promptly.

The aim of both divisions in 2019 is to continue to grow with the market as well as through displacement and to maintain the profit quality at a high level. Therefore, the focus on products with high value added and productivity gains in manufacture will be pursued consistently. In 2019, the largest contribution to growth will result from the acquisition of the Tann-Group, which will be integrated into the Group following the successful closing in the first quarter of 2019.

We will continue our investment activities on a long-term scale focusing on growth and cost reduction through the use of state-of-the-art technology.

After another record result was achieved in 2018, our goal is to make 2019 another year of success.

High attention will also be paid to the continuation of our acquisition course.

Vienna, February 28, 2019

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p.

Franz Hiesinger m. p.

Franz Rappold m. p.

Non-financial Report

CORPORATE RESPONSIBILITY

SUSTAINABILITY MANAGEMENT IN THE MM GROUP

STAKEHOLDERS

MATERIALITY ANALYSIS

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. Water consumption in production
3. Waste in production

Employees

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

Society

1. Compliance

CONTEXT OF NON-FINANCIAL TOPICS WITH BUSINESS DEVELOPMENT

NON-FINANCIAL INDICATORS

DISCLOSURES ON THE NON-FINANCIAL REPORT

GRI CONTENT INDEX

Sustainability management in the MM Group

Foreword

This detailed report in our combined annual and 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 fulfil our statutory obligation to prepare a consolidated non-financial report according to Article 267 a of the Austrian Commercial Code, and we report in detail how we deal with matters of economic, social, and ecological interest.

The topics described below were determined in the course of a materiality analysis in the Company. Relevant performance indicators were identified following 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 in order to be able to provide additional information. Besides the information provided here, the sections “Foreword”, “Locations”, and “Divisions” in other parts of the Annual Report also form part of the non-financial report.

Vienna, February 28, 2019

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p.

Franz Hiesinger m. p.

Franz Rappold m. p.

What we stand for

Responsible use of resources

We process primarily renewable raw materials and deploy state-of-the-art high-performance technologies in order to produce high-quality cartonboard and folding carton products in a resource-friendly way. These materials can be completely recycled after use. Sustainability and the implementation of a cyclical economy have thus always been an inherent part of the Mayr-Melnhof Group's business operations. Thereby, we combine a great sense of responsibility with long-term competitiveness.

Best possible standards

As an international group of companies with production sites in 18 countries and as the market leader in Europe, we have set ourselves the goal of sustainably establishing the best possible standards in all business areas throughout the Group.

Thus, we apply a challenging performance benchmark among individual locations to ensure that "best practice" takes root throughout the Group. It is our ambition to improve them further through continuous investment in technical progress.

Corporate values – our guiding principle

Responsibility, performance, and passion are the practiced core values of the MM Group which guide our actions throughout the Group in a corporate culture characterized by economic efficiency, transparency, and trust. Our business development is characterized by a long-term nature under a constant emphasis of profitability and solidity.

The highest degree of integrity is at the core of our principles of conduct, a sustainable protection of the environment is an inherent part of our business model. Besides adhering to the principles of honorable business people in our business activities, we also acknowledge our long-term responsibility towards society.

MM Group Code of Conduct

The principles of conduct of the Mayr-Melnhof Group are summarized in our Code of Conduct. They include the universal principles of the United Nations Global Compact and constitute guidelines for the responsible actions of our employees in order to conform to the ethical guiding principles from the areas of legal compliance, human rights, and labor standards throughout the Group.

Continuous communication and training courses are intended to increase detailed knowledge of this topic and provide orientation for its implementation.

Responsible persons

The ultimate responsibility for non-financial matters lies with the Management Board and the Supervisory Board, operational decisions for the relevant matters being taken by the respective persons in charge.

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 commissioned to conduct the materiality analysis, data collection, and reporting. The respective managers of the specialist departments exercise their managerial duties, with each employee making his or her own contribution. Sustainability management therefore does not take place in an isolated way, but as an integral element of the organization and its processes.

Stakeholders

The MM Group is aware of its responsibility towards a large number of stakeholder groups and acts accordingly in a purposeful manner.

Individual stakeholders of the MM Group were identified in the course of an analysis along the value added chain by involving internal experts from various business areas as follows:

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
- Residents

Stakeholder dialog

The dialog with these stakeholders takes place in a variety of ways. Information may be obtained via a number of different channels (such as website or newsletter). MM is, however, also available for a personal exchange at any time (e.g. in the form of customer meetings, supplier discussions, trade fairs) and, additionally, regularly conducts customer surveys. Shareholders and capital market participants are in regular contact with the Investor Relations department. Employee performance reviews are generally carried out once a year. Company representatives are members of European (e.g. CEPI, ECMA) and national interest groups (e.g. VDP, Austropapier).

Materiality analysis

A materiality analysis was conducted already in the financial year 2017. As a result, we analyzed MM's value added chain with regard to potential risks for the environment, society, and the economy. Thereby the impacts of MM's business activity on these topics 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 the non-financial issues 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 departmental 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 a better understanding of the impacts on non-financial issues 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 outcome for the Group.

The following key topics for MM resulted from the two dimensions of impacts and stakeholder interests:

Key topic	NaDiVeG ¹⁾ matters	GRI ²⁾ topic	See chapter
Renewable raw materials and recyclability	Environmental matters	301	Material and product responsibility
Ecological criteria in procurement	Environmental matters	308	Material and product responsibility
Packaging safety	Social matters	416	Material and product responsibility
Energy consumption and emissions in cartonboard production	Environmental matters	302, 305	Environmental management
Transport emissions	Environmental matters	305	Environmental management
Water consumption in cartonboard production	Environmental matters	303	Environmental management
Waste from production	Environmental matters	306	Environmental management
Employees' education and training	Employee matters	404	Employees
Employees' safety and health	Employee matters	403	Employees
Socially acceptable working conditions for employees	Employee matters, respect for human rights	102, 408, 409	Employees, society
Compliance with regulations and requirements	Social matters	419	Society
Anti-corruption and anti-competitive behavior	Fight against corruption and bribery	205, 206	Society

¹⁾ Sustainability and Diversity Improvement Act

²⁾ Global Reporting Initiative

The further development of the materiality analysis resulted in a slight shift in the list of key topics. While the effects relating to local employment and income effects were no longer classified as significant, the topics of “ecological criteria in procurement” and “transport emissions” have gained relevance. Ecological criteria in procurement had already been discussed in previous years. The significance of the topic of transport emissions needs to be analyzed in greater detail and will be addressed in future.

Sustainability topics

MATERIAL AND PRODUCT RESPONSIBILITY

1 — RENEWABLE RAW MATERIALS AND RECYCLABILITY

As industry leader, our aim is to comply with high standards also in view of the sustainable and responsible use of resources.

The MM Group defines cartonboard as an “ecologically intelligent packaging material” for many reasons as it has low environmental impact and combines additional significant advantages.

Cartonboard is

- renewable due to the use of the organically regenerative raw material wood: certifications for fibers from responsibly managed forests are considered standard in the cartonboard industry.
- climate-friendly, as forests constitute an important carbon reservoir. Cartonboard has extremely low CO₂ values within the value added chain.
- recyclable and can thus be reused several times. Used cartonboard packages have the highest recycling rate of all packaging materials and form the basis for the production of an environmentally friendly packaging material – recycled fiber-based cartonboard. A cellulose fiber can be recycled five to seven times.
- compostable and represents a valuable source of energy at the end of its life cycle, all in accordance with EU Directive 94/62/EG (referring to packaging and packaging waste).

The MM Group thus focuses on a product made from organic, renewable, and recyclable fibers. A difference is generally made between reprocessed fibers in the form of recovered paper and virgin fibers in the form of pulp or groundwood pulp.

In their production process, MM’s cartonboard mills use 74 % of recycled fibers and around 26 % of virgin fibers from responsibly managed and controlled forests.

MM Packaging produces cartonboard packaging using a state-of-the-art machinery pool in a broad range of sizes, shapes, designs, and finishing techniques. The main focus of the packaging production is placed on the highest quality together with cost-efficient and environmentally friendly material use.

Use of materials by MMK and MMP

MMK	<p>Recycling paper</p> <p>The use of recovered fibers as part of a cascaded utilization of the renewable raw material wood is of great ecological benefit. The cycle is closed, increasing the life cycle of wood within the entire value added chain by many times. More than 60 years ago, the Mayr-Melnhof Group recognized the economic and ecological advantage of “recovered paper” as a raw material and back then focused on the industrial production of recycled fiber-based cartonboard. Today, recycling has become indispensable and is at the core of our economic activity. The paper and cartonboard industry differentiates between more than 60 grades of recovered paper.</p> <p>Virgin fibers</p> <p>Around one quarter of the fibers used by MM Karton in cartonboard production is derived from virgin fibers (groundwood pulp and pulp).</p> <p>Chemicals</p> <p>Functional and process chemicals are required for the production of cartonboard. Functional chemicals include primarily inorganic pigments (calcium carbonate, kaolin), binding agents, starch, and sizing agents that aim at improving the visual, processing-related, and functional characteristics of cartonboard. Process chemicals, such as retention agents, dispersion agents, and defoaming agents, are necessary for the cartonboard production process.</p> <p>Packaging</p> <p>Our cartonboard products are shipped using functional transport packaging to protect them from damage or quality degradation caused by external influences. We always consider the relevant requirements of the means of transport and route and ensure an optimum and resource-efficient use of packaging materials, in particular of pallets and foils.</p>
MMP	<p>Print substrate (cartonboard and paper)</p> <p>The print substrate is the main input factor in the packaging production and has a decisive impact on print quality. It must have good printability properties and good operating performance in printing and processing machines as well as in the customers’ packaging units.</p> <p>MMP uses mainly the following types of print substrates:</p> <ul style="list-style-type: none"> ▪ Coated cartonboard allows for brilliant color effects and thus an excellent printed image and a high gloss effect. ▪ Uncoated cartonboard is matt with a high-quality front made from pulp and is good for printing. ▪ Corrugated cartonboard is a glued composite material with a corrugated paper web (corrugated medium) with at least one flat web of a different paper (liner). Liners can be, for example, Kraft liners, test liners, white top liners (white-coated liners).

MMP	<ul style="list-style-type: none"> ▪ Paper is used for various packaging solutions or leaflets. Coated and uncoated papers made from virgin fibers are primarily used. <p>Printing inks</p> <p>MMP deploys a limited number of rigorously tested and certified ink systems with precisely specified pigments. Mixing equipment in our own plants allows us to satisfy even the special color requirements of our customers.</p> <p>Varnishes</p> <p>The value of printing can be significantly increased by applying a layer of varnish. Spot varnishing can be used to highlight certain pictorial elements (e.g. product images) through matt/gloss contrasts resulting in special color effects.</p> <p>Foils for hot- and cold-foil embossing</p> <p>Embossing is one of the most challenging and effective finishing methods. The use of different types of embossing foils (high-gloss embossing foil, metalized embossing foil, holographic embossing foil, etc.) allows for a large number of different effects to be realized with foil embossing.</p> <p>Glue</p> <p>The quality of folding carton bonding depends on the adhesive used, the nature of the front and back of the cartonboard, and the process-related conditions in the folding carton gluing machine. We use primarily water-based dispersion adhesives.</p> <p>Printing and cutting dies (plates/cylinders)</p> <p>Different methods of printing require different printing forms whose costs and production times have an influence on the suitability of a printing method. Focus is placed on the use of printing plates for offset printing. The production of printing cylinders for gravure printing is complex; they are thus particularly suitable for high-quality requirements with large print runs. The printing machines are required to transfer the ink as precisely as possible from the form to the print substrate with a consistent transfer quality throughout the whole print run.</p> <p>Packaging</p> <p>Packaging at MM Packaging is used according to the principle of “as much as necessary, as little as possible” and also depends on customer requirements. Priority is given to sustainably manufactured materials. MM Packaging takes great care to ensure that packaging materials can be reused in the recycling process. Common materials include outer transport packaging made from corrugated board, pallets, and foils.</p>
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a — Risks and impacts

The most important resources for manufacturing cartonboard are fibers, chemicals, water, and energy. In contrast, the focus of folding carton production lies on the materials used (cartonboard, ink, varnishes, finishing materials, glue).

As raw materials, both divisions of the MM Group process a high proportion of renewable materials, i.e. fibers. Non-renewable raw materials play a subordinate role. This is also reflected in the volumes used, which are presented on page 114. 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 recyclability of our products saves natural resources. The raw material of recovered paper is available in sufficient quantities for our production sites. Around 60 million tons of paper are collected and reprocessed in Europe every year. MM Karton processes around 1.1 million tons thereof.

Stock preparation, i.e. breaking down individual fibers before application on 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 for MMK and MMP consists in the discharge of chemicals in the course of production. 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

Recovered paper is subject to strict quality standards. The different grades are precisely defined in the EN643 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.

Fibers are the most important material in the production of cartonboard. Cartonboard mills therefore work continuously on projects aimed at optimizing fiber use and application. Improvements in extracting recycled fibers are achieved primarily through progress in stock preparation. Constant monitoring ensures optimum use in day-to-day production.

All the chemicals used in cartonboard production conform to 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 comply 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 of chemicals to humans and the environment.

For food packages, only low-migration inks and varnishes that comply with all relevant legal regulations are used in the folding carton production at MMP. 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 glue used for food packages has to fulfil high demands in terms of processability, strength of the adhesive seam, and safety for use with food, and is 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.

c — Measures and development

MM Karton achieves optimization in the use of fibers and chemicals in particular through the continuous development of products, formulations, and processes. In 2018, we continued to focus on improving the use of recovered fibers in a division-wide project and reduced the use of pulp and white grades of recovered paper in recycled fiber-based cartonboard. Improvements in fiber consumption involved both product-related and production-related adjustments (e.g. production in the Neuss mill in three instead of the previous four layers) as well as the reduction of waste and reject material. Moreover, we also focused on optimizing sources of supply. The main improvements in chemicals consumption were achieved through process modifications and the use of substitutes, e.g. the discontinuation of de-inking at the Eerbeek site and wastewater treatment in the Baiersbronn mill.

MM Packaging achieved improvements in its consumption of printing material through process optimization and the associated reduction in waste. The focus of chemicals management was placed on consumption and reuse.

2 — ECOLOGICAL CRITERIA IN PROCUREMENT

Besides the use of renewable and recycled raw materials, ecological criteria in procurement are also a key topic for the Mayr-Melnhof Group. The focus is placed on independent verification of raw materials procurement and proven compliance of the company's working methods with international environmental and social standards that support long-term sustainable development. In addition, care is generally taken wherever possible to use sources of supply located near our plants.

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.

b — Management approach

According to the principle of dealing responsibly with resources and using designated sustainable raw materials in production a Chain-of-Custody standard is pursued.

Certification in the area of Chain-of-Custody:

- FSC®
- PEFC™

FSC® and PEFC™

The successful completion of chain-of-custody certification for all seven MM cartonboard mills according to the PEFC™ and FSC® standards (license FSC-C003336) in 2009 demonstrates 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.

Moreover, MM Karton has committed itself to excluding the following origin for wood (in accordance with the currently valid FSC® "Controlled Wood Standard"):

- 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 by MM Karton and MM Packaging.

MMK mills work with a so-called “credit system” which records all purchased 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. The shares of FSC®- and PEFC™-certified and controlled virgin fiber use are presented on page 114.

In MM Packaging plants, FSC®- and PEFC™-certified cartonboard is stored and processed strictly separately from non-certified cartonboard. Which type of cartonboard is used in folding carton production depends on our customers’ wishes and the respective scope 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 and cover 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 within the supply chain, and we encourage them to introduce and implement similar principles of responsibility.

c — Measures and development

FSC®- or PEFC™-certified cartonboard is increasingly used in individual plants of the MM Packaging division owing to customer demand.

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 harm for consumers’ health, 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

A detailed overview of certified MM locations can be found 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 was one of the first companies in the cartonboard industry to be certified according to the ISO 9001 quality management system which currently covers all production sites of the cartonboard division as well as more than 90 % of the packaging sites.

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 the certified hygiene management in accordance with EN 15593 apply in particular to cartonboard packaging products used in the fields of food and pharmaceuticals. Here, 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 producing 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 ECMA (European Carton Makers Association). All European packaging sites comply with the requirements of this guideline.

c — Measures and development

An ongoing internal and external analysis of cartonboard products and a continuous evaluation with regard to compliance with the relevant rules and regulations also played a central role in MM's measures in 2018. Comprehensive employee training in product safety and food contact in order to safeguard expertise and competence in state-of-the-art technology were consistently pursued. At MM Karton, special attention was paid to the introduction of new products such as FOODCART™ and the use of fluorine-free barriers in 2018. At MM Packaging, particular focus was placed on improving existing certifications regarding food safety (BRC, FSSC, ISO 22000, ECMA GMP) and meeting special customer requirements.

In 2018, five cartonboard mills switched to the new version of the ISO 9001/14001 standards for quality and environmental management. Two cartonboard mills and the FollaCell fiber mill had already successfully implemented this standard. Certification and recertification in the packaging division involved particularly ISO 9001.

ENVIRONMENTAL MANAGEMENT

1 — ENERGY CONSUMPTION AND EMISSIONS IN PRODUCTION

The most important environmental impacts of the business operation of the MM Group is due to its energy and water consumption. While MM Karton requires proportionally higher volumes of energy, the consumption at MM Packaging is significantly lower.

Natural gas provides over 80 % of the primary energy needs 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 sources of energy in the individual mills include hydroelectric power, light heating oil, diesel, and liquefied gas.

Furthermore, in the Hirschwang mill, leftover materials from production (reject materials and fiber residues) are used in a thermal process to generate energy for the production of steam. The Frohnleiten mill also uses biogas from anaerobic wastewater treatment. Increasing efficient self-supply of power is MM Karton's long-term goal. Figures of the absolute and specific energy consumption in cartonboard production can be seen on page 115.

The production of MM Karton which already works very energy efficiently today, is additionally supplied with power from renewable energy sources.

Resource-efficient operations not only pay off for us but also for our environment. Responsible energy consumption management has therefore always been of high priority. Care is taken throughout the Group to ensure that the best-possible standards are integrated, and existing facilities are upgraded systematically.

a — Risks and impacts

Exhaust air emissions that result from cartonboard production are mainly caused in energy production by burning natural gas. Emissions of CO₂, 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 to pre-heat other premises, for example.

Low carbon footprint

Wood and cartonboard play a significant role in climate protection. Trees absorb CO₂ while growing. Wood fibers from the forests that are processed into cartonboard store carbon in the finished product – the cartonboard product. Moreover, the recycling of folding cartons also keeps the carbon stored, preventing it from returning into the atmosphere. Cartonboard and folding carton thus play a role in the expansion of forests and in the protection of the environment.

In the light of climate protection, a disclosure of the carbon footprint is a way of helping consumers to compare and assess the environmental impact of the production process through to the finished product.

In accordance with the agreement of the European paper, cartonboard and packaging producers, MM Karton, along with other manufacturers, applies the calculation method of the NCASI framework (National Council for Air and Stream Improvement) which was defined by the CEPI (Confederation of European Paper Industries) and is scientifically sound and independently audited.

Pro Carton, the European association of the cartonboard and folding carton industry, has published the latest average CO₂ footprint of folding carton production in Europe, in intervals of three to five years: due to a reduction by an additional 3 % between 2011 and 2014, the carbon footprint is now at 885 kg of fossil CO₂ equivalents per processed ton of folding carton and is largely offset by the storage of -730 kg of biogenic CO₂. This is the result of continuous improvement measures in the entire production process – from the use of raw materials and energy to waste reduction. The official Pro Carton method of calculating the carbon footprint for the production of folding cartons starts with the raw materials (cradle) and ends at the folding carton producer's exit gate.

b — Management approach

Existing environmental management systems within the MM Group have been set up in such a way that changing requirements can be incorporated and adapted to easily and as quickly as possible.

Each year, environmental objectives are defined at all the levels concerned and for each relevant area. 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 regarding 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. In addition, the MM Group follows the precautionary principle in its activities by taking account of anticipated developments and forecasts for all objectives and measures.

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

Environment- and energy-management-specific certification comprises in particular the following standards:

- ISO 14001
- EMAS
- ISO 50001

ISO 14001

The systematic incorporation of environmental protection into management considerations already started back in 1996 with the certification of the cartonboard mill in Frohnleiten according to the globally applicable standard for environmental management systems, ISO 14001. Since then, regular internal and external audits have safeguarded the high environmental standard and supported us in meeting new requirements.

EMAS

Since 1996, the cartonboard sites in Frohnleiten and Hirschwang have participated voluntarily in the EC's ecological auditing regulation. 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 from the certified sites. 22 locations in the packaging division are certified according to ISO 14001 and/or EMAS.

ISO 50001

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

Systematic energy management using a set of key performance indicators (KPIs) is consequently continued and optimized 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 also documented in detail, enabling everyone to clearly see their influence on energy saving.

Emission certificates (“carbon leakage” classification for MM Karton)

The following applies based on current knowledge: the volume allocation of CO₂ certificates to the seven cartonboard mills located within the European Union and the FollaCell fiber mill since 2013 up to and including 2020 will be largely free of charge. Accordingly, a sufficient number of CO₂ certificates is available for the sites until the end of 2020. However, an examination of the allocation process for the subsequent years (2021 et seq) by the EU is to be anticipated. This revision is to be expected only by the end of 2019. The political goal of the European Union was, until now, a reduction in CO₂ emissions by approximately 20 % by 2020 compared to the reference year 1990. In this context, free allocations of CO₂ have been reduced since 2013. CO₂ emissions are determined based on a comprehensive monitoring concept adapted to each location in accordance with Regulation (EU) No. 601/2012. Figures on the absolute and specific direct CO₂ emissions in MM Karton’s production can be found on page 115.

c — Measures and development

Projects of MM Karton in 2018 focused in particular on improving the efficiency in energy generation through technological optimization of existing facilities and by investing in replacements. Furthermore, the use of biogas was extended. The most important project was the commissioning of a new gas and steam power station at the Frohnleiten site in Austria as replacement for the existing plant in order to reduce NO_x emissions and increase efficiency.

In the “e. efficiency” initiative all measures aimed at improving energy efficiency per ton of cartonboard have been coordinated for around a decade. Based on the significant reduction in specific energy consumption already achieved, we aim to continuously exploit new savings potentials. These projects involve all areas of cartonboard production, from material preparation and operation of the cartonboard machine to equipment and our own power stations and wastewater purification systems.

Measures undertaken at MM Packaging in 2018 aimed in particular at improving the air conditioning systems and thermal isolation. The conversion to LED lighting was systematically continued. Furthermore, the energy efficiency at various plants was increased by modifying to existing systems.

Energy consumption optimization with regard to transportation services is pursued in particular through improvements in the use of truck capacities, an increased efficiency in intra-company logistics, and the possible option of using rail transport to a higher extent.

2 — WATER CONSUMPTION IN PRODUCTION

Water is an essential operating resource in the cartonboard production process. In contrast, there is almost no water consumption during cartonboard processing in production. Consequently, 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 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. 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 specially trained Company-internal staff and in regular external inspections. Compliance with the relevant statutory regulations is verified by the respective national or regional authorities.

For information regarding certification in environmental management, please refer to page 99.

c — Measures and development

In 2018, MM Karton undertook additional measures to reduce the consumption of fresh water in production. In particular, the technology used in its water treatment plants was modernized or upgraded. MM Packaging also focused on projects aimed at reducing the consumption of fresh water and on relevant monitoring.

3 — WASTE IN PRODUCTION

The topics of reducing waste 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 were also continued in 2018 and focused in particular on 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 also is 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 impact 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 guiding principle for waste disposal is “prevention before recycling before disposal”. Waste management at our sites is performed according to a waste management plan that 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 to combine economic and ecological benefits, in particular by constantly minimizing the amount of residual materials. Continuous recording and analysis of wastewater values is performed by specially trained, company-internal staff and by regular external inspections. Compliance with the relevant statutory regulations is verified by the respective national and regional authorities.

For information regarding certification in environmental management, please refer to page 99.

c — Measures and development

In 2018, measures aimed at reducing waste in the cartonboard division primarily involved improvements in fiber recovery, process changes, and optimized approaches to selecting regional sources of fiber supply. In the packaging division, focus was placed on reducing residual waste (e.g. foils) and minimizing hazardous waste (e.g. solvent and ink residues) through avoidance or substitution. The current monitoring of waste was constantly pursued in both divisions, and safety measures in waste collection were extended.

EMPLOYEES

1 — EMPLOYEE EDUCATION AND TRAINING

At the end of 2018, the Mayr-Melnhof Group employed a total of 9,445 people in 24 countries. They are at the basis of our Company's success. Therefore, great care is taken to ensure that qualified specialists and managers are available to the Group in the long term in order to secure the leading position and a continued course of growth.

Against the backdrop of demographic change and an increasing shortage of qualified experts, the positioning of the Mayr-Melnhof Group as an attractive employer is of great importance. Personnel development is a core element with the aim of ensuring general conditions in which employees at all levels can fully develop their abilities over the long term and, with growing skills, take on increasingly more responsible tasks. We actively promote career paths and international deployment within the Company in order to retain knowledge and talents within the Company 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 which 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

Through numerous education and advanced training programs the MM Group encourages the promotion of professional and personal qualification of the employees and thus actively contributes to increasing and ensuring the employability.

b — Management approach

The focus of our Human Resources Management lies on strategic personnel planning, recruitment, and employee development, education, and advanced training as well as the systematic management of knowledge within the Group. The "Corporate Human Resources" function manages the program centrally, its implementation however being performed locally at the individual sites. Individual program components are continuously evaluated and adjusted to current requirements in terms of content, methods, and digitalization.

Active personnel marketing

Already prior to an employment, we offer a wide range of options of being introduced to the Group and getting in touch with us. Continuous collaboration with schools, universities, and colleges as well as our regular participation in career fairs allow us to position the MM Group as an attractive employer and to get into contact with young people at an early stage.

Systematic support from the start

With our "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 guiding principle is "the apprentice as an opportunity for our Company and our Company as an opportunity for the apprentice". MM bears the Austrian quality seal "Top Company for Apprenticeships" and was awarded as "Great Place to Start" by Great Place to Work®.

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

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 (production, automation). Personal mentoring and technical upskilling provide support in an exciting hands-on position.

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. Besides teaching specialist knowledge and language skills, training focuses on communicating social and managerial skills as well as the "MM Apprentice Academy". The key criterion for every course 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. The "MM-Academy" trains several thousand employees in class-based and online courses each year, whereby e-learning offerings are increasing.

"Methusalems" program

In the "Methusalems" program, we tie the long-standing experience and expert knowledge of senior employees within selected projects to the Group. 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 valued regular element of our personnel development programs.

c — Measures and development

In 2018, we further completed our extensive toolset in the digitalization of recruitment, which now includes active sourcing, mobile recruiting, remote interviews, modern candidate management, and online assessment.

In the area of employer branding, the career section on the Group's website was relaunched, on the one hand, and attendance at selected career and industry events continued, on the other hand. We actively collaborated with engineering and economics students in projects and case studies. In this context, we are pleased to announce a new collaboration with the St. Pölten University of Applied Sciences in the bachelor degree program Smart Engineering.

In 2018, we provided basic and advanced training to around 4,000 participants in job-specific subjects in the "MM Academy", which included an increasing range of e-learning courses (e.g. compliance, foreign languages, personal qualification). At the end of 2018, around 152 apprentices (December 31, 2017: 186) were in training within the Group, with a focus on industrial and technical professions.

The year's focus area of our "Ranger" program was on the future-oriented topic of knowledge transfer by creating a management toolbox. TraineeNet's award for both our "Explorer" and "Ranger" management programs as "genuine and fair trainee programs" emphasizes the practical relevance that we have been pursuing over the long term.

2 — EMPLOYEE SAFETY AND HEALTH

Due to the fact that we are a manufacturing business, the MM Group places great emphasis on safety. In corporate health management, we take a large number of measures with the aim of maintaining our employees' health and productivity at a high level throughout their entire working lives.

a — Risks and impacts

A possible adverse effect of working in shift operations, working with chemicals, and the risk of occupational injuries and 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 employees' health. Besides largely stable employment, the extensive development of knowledge and expertise has a positive effect on our employees.

b — Management approach

Our health management policy aims at preserving the health and vitality of our employees at a high level throughout their entire working lives. Prevention and screenings are given the highest priority. The program especially focuses on continuous care provided by company doctors, constant health and occupational safety training courses and preventive check-ups.

Responsibility for health management lies at the local level in the factories with the respective general managers and their safety officers, as they best know the needs within their facilities and how to comply with country-specific regulations.

Individual safety and health standards in the workplace are observed. Continuous measures, such as a regular evaluation and trainings, 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, as well as the insistence on safety-assured services from our suppliers based on safety certifications. The management follows the guiding principle that all employees leave their workplace in a healthy state.

c — Measures and development

Measures relating to safety and health management mainly involved reevaluating specific workloads, improving the working environment, and optimizing occupational safety, accident prevention, and reporting discipline (near accidents). Training in the area of safety and health were continuously provided at the Group's sites. Resilience and resource mobilization training courses teaching employees how to deal with stress and strain were also provided with success in 2018.

3 — WORKING CONDITIONS/ENVIRONMENT

Our goal is to guarantee general conditions in which our employees can contribute to the Company's success over the long term. At the end of 2018, 9,445 people were employed in the Mayr-Melnhof Group, of which around 90 % were located in Europe and 10 % in Latin America, the Middle East, and Asia. Their cultural diversity and differing ranges of experience are an enrichment for our international business activity.

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

Employees of the Group

	Dec. 31, 2018		Dec. 31, 2017	
Western Europe (excl. Austria)	4,326	45.8 %	4,476	45.4 %
Austria	1,498	15.9 %	1,499	15.2 %
Eastern Europe	2,645	28.0 %	2,759	28.0 %
Asia and MENA	509	5.4 %	561	5.7 %
Latin America	467	4.9 %	561	5.7 %
Total	9,445	100.0 %	9,856	100.0 %

a — Risks and impacts

Even if a large part of MM facilities are located in European countries, the MM Group may be exposed to risks regarding human rights in countries outside Europe. 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. Those risks are, however, deemed to be low for the industry, and strict compliance with standards is a way of actively counteracting such risks.

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.

As in most industrial companies, production operations in the MM Group run in shifts. This means that appropriate compensatory 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 individuals with high performance 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 internal and 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.

The Code of Conduct covers the fundamental needs of our employees. This standard applies to all employees around the world. The Code of Conduct of the Mayr-Melnhof Group 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 it.

c — Measures and development

Continuous communication (e. g. intranet, internet, folder) and training courses are intended to increase detailed knowledge in this context and to provide orientation for its implementation.

SOCIETY

1 — COMPLIANCE

The MM Karton division generates 84 % of its sales in Europe and 16 % in countries outside Europe. Cartonboard mills are located in Germany, Austria, the Netherlands, and Slovenia. The MM Packaging division has 37 production sites in 15 countries on three continents. 89 % of sales are generated in European countries. MMP's production outside Europe takes place in 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 cited in previous sections.

Topics as compliance with human rights and the fight against corruption and bribery are becoming increasingly relevant.

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, anti-competitive behavior, and 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 or 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

Compliance comprising all the actions and measures aimed at observing laws, codes of conduct, and other standards, is a key task of the Management Board in the Mayr-Melnhof Group and is accompanied by a compliance program subject to continuous further development.

The compliance risk arising from a potential failure to adhere to standards, laws, rules of conduct, and, possibly, voluntary declarations of commitment is countered in particular by protective measures in systems, regular and systematic compliance monitoring, the principle of dual control, and guidelines (such as the Code of Conduct). Furthermore, we have set up the function of an independent 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.

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

Guideline: accepting gifts, granting benefits

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: Antitrust law

The Group's rejection of cartel violations is expressed in an antitrust compliance guideline that describes appropriate conduct in dealing with competitors.

Guideline: relationship with competitors, customers, associations

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.

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.

Employees of the Mayr-Melnhof Group are responsible for protecting tangible and intangible assets of the Company within their fields of activity.

The area of capital market compliance is covered by a binding internal compliance policy applicable for all persons concerned in order to prevent insider dealings.

c — Measures and development

Measures in 2018 especially focused on the amendment of the internal compliance guideline in regard of compliance-relevant information in the Company as well as related communication. At the beginning of 2019, an internal information campaign about compliance with the Code of Conduct within the Group has been conducted.

CONTEXT OF NON-FINANCIAL TOPICS WITH THE 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 CO₂ 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, business development of the Mayr-Melnhof Group in 2018 was characterized by a high level of continuity. 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

Material local employment effects	Dec. 31, 2018	Dec. 31, 2017
<i>Number of employees per country</i>		
Germany	2,760	2,854
Austria	1,498	1,499
France	918	937
Poland	736	811
Turkey	575	612
Russia	495	492
Slovenia	392	389
Chile	270	336
Iran	245	263
Great Britain	220	232
Ukraine	226	229
Colombia	196	224
Romania	214	218
Netherlands	200	207
Spain	146	163
Vietnam	135	146
Jordan	127	139
Norway	65	61
Others	27	44

Renewable raw materials and recyclability¹⁾	2018	2017
<i>Cartonboard production²⁾</i>		
Renewable raw materials	1.6 million t	1.6 million t
Fiber use	1.5 million t	1.6 million t
Recycled fibers ³⁾	1.1 million t	1.2 million t
Virgin fibers ⁴⁾	0.4 million t	0.4 million t
- thereof from FSC [®] -certified sources	14 %	17 %
- thereof from PEFC [™] -certified sources	38 %	36 %
- thereof from controlled sources ⁵⁾	48 %	47 %
Non-renewable raw materials	0.3 million t	0.3 million t
<i>Packaging production</i>		
Renewable raw materials	0.8 million t	0.8 million t
Cartonboard and paper use	0.8 million t	0.8 million t
Recycled fiber-based cartonboard	0.3 million t	0.4 million t
Virgin fiber-based cartonboard	0.3 million t	0.4 million t
Non-renewable raw materials	0.0 million t	0.0 million t

¹⁾including packaging materials²⁾excluding MM FollaCell AS³⁾excluding rejects⁴⁾groundwood pulp equivalent⁵⁾including FSC[®] Controlled Wood

Other environmental indicators	2018	2017
<i>Energy consumption</i>		
Energy consumption in cartonboard production ¹⁾	3.4 TWh	3.4 TWh
Specific energy consumption ¹⁾²⁾	1.9 MWh/t	1.9 MWh/t
Energy consumption in packaging production	0.3 TWh	0.3 TWh
Specific energy consumption ²⁾	0.4 MWh/t	0.4 MWh/t
<i>Emissions</i>		
Direct CO ₂ emissions in cartonboard production ¹⁾³⁾	0.5 million t	0.5 million t
Specific direct CO ₂ emissions ¹⁾²⁾³⁾	0.3 t/t	0.3 t/t
Direct CO ₂ emissions in packaging production	0.03 million t	
Specific direct CO ₂ emissions ²⁾	0.04 t/t	
<i>Water consumption</i>		
Water consumption in cartonboard production ¹⁾	22 million m ³	24 million m ³
Water consumption in packaging production	0.3 million m ³	0.3 million m ³
<i>Waste</i>		
Non-hazardous waste in production	0.3 million t	0.4 million t
Hazardous waste in production	4 thous. t	4 thous. t

¹⁾ including MM FollaCell AS

²⁾ based on net production

³⁾ emissions reported according to section 9 EZG 2011

Social indicators	2018	2017
<i>Employee safety and health</i>		
Occupational accidents resulting in death	0	0
<i>Employee education and training</i>		
Employees trained by MM-Academy	3,853	1,067
<i>Socially acceptable working conditions for employees</i>		
Cases of child labor	0	0
Cases of forced labor	0	0
<i>Anti-corruption and anti-competitive behavior</i>		
Production sites ¹⁾ in countries with a corruption index < 30 according to Transparency International Corruption Index 2017	2 of 45	4 of 45
Number of legal actions against corruption or anti-competitive behavior	0	0
<i>Violation of guidelines and requirements</i>		
No significant fines or sanctions due to non-compliance with laws and regulations in social and economic areas		
<i>Safety and packaging</i>		
Percentage of cartonboard grades for which impacts on customers' health and safety are verified	100 %	100 %
Number of production sites which are certified in the areas of food safety and/or hygiene (BRC, ISO 22000, EN 15593, ECMA GMP, HACCP)		
in cartonboard production (excl. MM FollaCell AS)	7 of 7	7 of 7
in packaging production	25 of 37	25 of 37

¹⁾ including MM FollaCell AS

ABOUT THE NON-FINANCIAL REPORT

The present non-financial report records Group-wide activities and indicators of the MM Group in accordance with the reporting scope and reporting period of the Annual Report 2018. The combined annual and non-financial reports will be published on an annual basis. The present report was prepared taking into account the GRI Standards ("Core" option) published by the Global Sustainability Standards Board (GSSB). The standards of the Global Reporting Initiative (GRI) are considered as internationally recognized framework for sustainability reporting. The GRI content index can be found on page 117. An external audit of the non-financial report was not intended.

In 2018, both sustainability management and non-financial reporting have been developed further. Therefore, data collection processes were adjusted in order to improve the quality of the non-financial data and make data collection more efficient. We want to pursue a continuous further development in this area also in the next years.

In order to better understand the impacts of our own business activity, we have deepened the materiality analysis and have analyzed the business relevance of material topics. Moreover, the context between non-financial topics and business development was enhanced.

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Consolidated Balance Sheets

(all amounts in thousands of EUR)	Notes	Dec. 31, 2018	Dec. 31, 2017
ASSETS			
Property, plant and equipment	6	852,607	858,875
Intangible assets including goodwill	6	122,868	126,263
Investments in associated companies, securities and other financial assets	8	4,766	7,429
Deferred income taxes	9	23,573	20,575
Non-current assets		1,003,814	1,013,142
Inventories	10	346,860	341,041
Trade receivables	11	367,531	386,200
Income tax receivables		10,516	10,855
Prepaid expenses, securities and other current assets	12	76,002	64,258
Cash and cash equivalents	31	260,982	197,910
Current assets		1,061,891	1,000,264
TOTAL ASSETS		2,065,705	2,013,406
EQUITY AND LIABILITIES			
Share capital	13	80,000	80,000
Additional paid-in capital	13	172,658	172,658
Retained earnings	13	1,341,132	1,239,415
Other reserves	13	(211,195)	(175,892)
Equity attributable to shareholders of the Company		1,382,595	1,316,181
Non-controlling (minority) interests	13	2,164	2,409
Total equity		1,384,759	1,318,590
Financial liabilities	14	177,348	191,890
Provisions for non-current liabilities and charges	15	115,909	121,355
Deferred income taxes	9	14,397	14,374
Non-current liabilities		307,654	327,619
Financial liabilities	14	34,334	20,578
Current tax liabilities		13,974	7,031
Trade liabilities	16	205,114	218,533
Deferred income and other current liabilities	17	107,981	97,689
Provisions for current liabilities and charges	18	11,889	23,366
Current liabilities		373,292	367,197
Total liabilities		680,946	694,816
TOTAL EQUITY AND LIABILITIES		2,065,705	2,013,406

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, 2018	Year ended Dec. 31, 2017
Sales	19	2,337,658	2,336,804
Cost of sales		(1,790,059)	(1,803,709)
Gross margin		547,599	533,095
Other operating income	20	12,724	17,225
Selling and distribution expenses		(223,026)	(216,698)
Administrative expenses		(120,146)	(118,552)
Other operating expenses		(69)	(56)
Operating profit		217,082	215,014
Financial income	25	1,326	1,948
Financial expenses	26	(6,078)	(6,185)
Other financial result – net	27	5,582	(5,306)
Profit before tax		217,912	205,471
Income tax expense	9	(53,747)	(50,436)
Profit for the year		164,165	155,035
Attributable to:			
Shareholders of the Company		163,670	154,573
Non-controlling (minority) interests	13	495	462
Profit for the year		164,165	155,035
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	8.18	7.73

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, 2018	Year ended Dec. 31, 2017
Profit for the year	164,165	155,035
Other comprehensive income:		
Actuarial valuation of defined benefit pension and severance obligations	(1,280)	3,602
Effect of income taxes	429	(927)
Total of items that will not be reclassified subsequently to the income statement	(851)	2,675
Foreign currency translations	(34,399)	(27,505)
Total of items that will be reclassified subsequently to the income statement	(34,399)	(27,505)
Other comprehensive income (net)	(35,250)	(24,830)
Total comprehensive income	128,915	130,205
Attributable to:		
Shareholders of the Company	128,367	129,956
Non-controlling (minority) interests	548	249
Total comprehensive income	128,915	130,205

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

Consolidated Statements of Changes in Equity

(all amounts in thousands of EUR) Notes	Equity attributable to shareholders of the Company							Non-controlling (minority) interests	Total equity
	Share capital	Additional paid-in capital	Retained earnings	Other comprehensive income			Total		
	Share capital	Additional paid-in capital	Retained earnings	Foreign currency translations	Actuarial gains and losses	Other reserves	Total		
Balance at Jan. 1, 2017	80,000	172,658	1,150,995	(98,040)	(53,235)	(151,275)	1,252,378	6,784	1,259,162
Profit for the year	0	0	154,573	0	0	0	154,573	462	155,035
Other comprehensive income	0	0	0	(27,295)	2,678	(24,617)	(24,617)	(213)	(24,830)
Total comprehensive income	0	0	154,573	(27,295)	2,678	(24,617)	129,956	249	130,205
Transactions with shareholders:									
Dividends paid 13	0	0	(60,000)	0	0	0	(60,000)	(359)	(60,359)
Change in majority interests 5	0	0	(6,153)	0	0	0	(6,153)	(4,265)	(10,418)
Balance at Dec. 31, 2017	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	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

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, 2018	Year ended Dec. 31, 2017
CASH FLOW FROM OPERATING ACTIVITIES:			
Profit for the year		164,165	155,035
Adjustments to reconcile profit for the year to net cash from operating activities excluding interest and taxes paid:			
Income tax expense	9	53,747	50,436
Depreciation and amortization of property, plant and equipment, and intangible assets	6	107,278	99,692
Gains (losses) from disposals of property, plant and equipment, and intangible assets	20	(202)	(899)
Negative goodwill	5	0	(6,477)
Financial income	25	(1,326)	(1,948)
Financial expenses	26	6,078	6,185
Gains (losses) from disposals of subsidiaries	5	(2,882)	0
Share of profit (loss) from other investments	27	(422)	(618)
Gains (losses) from disposals of securities and other financial assets	27	(1,143)	(79)
Other adjustments	31	(11,324)	(3,847)
Net cash from profit		313,969	297,480
Changes in working capital:			
Inventories		(14,989)	(13,882)
Trade receivables		4,371	(28,772)
Prepaid expenses, securities and other current assets		(7,733)	(18,349)
Trade liabilities		(119)	20,756
Deferred income and other current liabilities		2,080	12,991
Provisions for current liabilities and charges		(996)	(2,744)
Changes in working capital		(17,386)	(30,000)
Cash flow from operating activities excluding interest and taxes paid		296,583	267,480
Income taxes paid		(46,479)	(50,254)
Net cash from operating activities		250,104	217,226
CASH FLOW FROM INVESTING ACTIVITIES:			
Proceeds from disposals of property, plant and equipment, and intangible assets		2,337	2,013
Payments for acquisition of property, plant and equipment, and intangible assets (incl. payments on account)	16	(129,963)	(150,763)
Payments for acquisition of companies or other business entities, net of cash and cash equivalents acquired (2018: thous. EUR 0; 2017: thous. EUR 68)	5	0	(8,048)
Proceeds from disposal of companies or other business entities, net of cash and cash equivalents disposed (2018: thous. EUR 3,520; 2017: thous. EUR 0)	5	2,624	0
Proceeds from disposals of securities and other financial assets		4,390	738
Payments for securities and other financial assets		(195)	(848)
Dividends received	27	422	618
Interest received		1,351	1,905
Net cash from investing activities		(119,034)	(154,385)
CASH FLOW FROM FINANCING ACTIVITIES:			
Interest paid		(5,954)	(6,140)
Issuances of financial liabilities	31	7,241	9,914
Repayments of financial liabilities	31	(7,807)	(57,730)
Payments to non-controlling (minority) shareholders		0	(182)
Dividends paid to the shareholders of the Company	13	(62,000)	(60,000)
Dividends paid to non-controlling (minority) shareholders	13	(746)	(359)
Net cash from financing activities		(69,266)	(114,497)
Effect of exchange rate changes on cash and cash equivalents		1,268	(1,572)
Change in cash and cash equivalents		63,072	(53,228)
Cash and cash equivalents at the beginning of the year (according to the consolidated balance sheet)		197,910	251,138
Cash and cash equivalents at the end of the year (according to the consolidated balance sheet)		260,982	197,910

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 Brahmssplatz 6, 1040 Vienna, Austria. The shares of the Company are listed on the Vienna Stock Exchange.

Segment information

The Group is divided into two operating segments (see note 19): 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), other consumer goods industries (e. g. cosmetics and toiletries, detergents, household articles, and toys) and cigarette as well as pharmaceutical packagings and high-grade confectionary packaging.

2 — PRINCIPLES OF PREPARING THE CONSOLIDATED FINANCIAL STATEMENTS

Basic accounting principles and declaration of compliance

The consolidated financial statements and notes thereto of Mayr-Melnhof Karton AG and its subsidiaries 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 as, for example, certain financial instruments and defined benefit obligations.

The present consolidated financial statements comprise the period from January 1 till December 31, 2018 and have been signed by the Management Board as of February 28, 2019 and will be presented to the Supervisory Board for review and approval.

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, 2018 and with an effective date no later than this date, were taken into consideration:

New standards	Content	Effective
IFRS 9	Financial Instruments	2018
IFRS 15	Revenue from Contracts with Customers incl. Amendments to IFRS 15: Effective date	2018
IFRS 15	Revenues from Contracts with Customers – Clarifications	2018
Revised standards	Content	Effective
IAS 40	Transfers of Investment Property	2018
IFRS 2	Classification and Measurement of Share-Based Payment Transactions	2018
IFRS 4	Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	2018
	Annual Improvements to IFRSs – 2014-2016 Cycle	2018
New interpretations	Content	Effective
IFRIC 22	Foreign Currency Transactions and Advance Consideration	2018

If applicable, the effective regulations were applied in the present consolidated financial statements without any significant impact on the presentation of the financial situation and profitability. Further details to the newly applicable standards IFRS 9 and IFRS 15 are provided in the following section.

Furthermore, the following new and revised standards and interpretations were endorsed by the EU by December 31, 2018; their application is, however, not yet compulsory for the financial year 2018:

New standards	Content	Effective
IFRS 16	Leases	2019
Revised standards	Content	Effective
IFRS 9	Prepayment Features with Negative Compensation	2019
New interpretations	Content	Effective
IFRIC 23	Uncertainty over Income Tax Treatments	2019

Additionally, the following new and revised standards were published by IASB until December 31, 2018 but have not yet been endorsed by the EU:

New standards	Content	Effective
IFRS 17	Insurance Contracts	2021
Revised standards	Content	Effective
IAS 28	Long-term Interests in Associates and Joint Ventures	2019
	Annual Improvements to IFRSs – 2015-2017 Cycle	2019
IAS 19	Plan Amendment, Curtailment and Settlement	2019
	References to the Conceptual Framework in IFRS Standards	2020
IFRS 3	Definition of a Business	2020
IAS 1/IAS 8	Definition of Material	2020

IFRS 9 and IFRS 15, which were newly applicable in 2018 and IFRS 16, applicable as of January 1, 2019, are described as follows:

IFRS 9 “Financial Instruments” was applied for the first time as of January 1, 2018. IFRS 9 introduced changes for the classification and measurement of financial instruments, the impairment of financial assets, and the requirements regarding hedge accounting. Thus, IFRS 9 completely replaces accounting of financial instruments according to IAS 39.

Only minor adjustments in presentation did result from the application of IFRS 9. Financial assets are measured at amortized cost or at fair value (either through other comprehensive income or through profit or loss). Most financial assets fulfill the requirements for the valuation at amortized cost. The requirements of IFRS 9 for the classification and measurement of financial liabilities do not differ significantly from those of IAS 39.

The original classification categories according to IAS 39 as of December 31, 2017, and the new categories according to IFRS 9 at the time of their initial recognition as of January 1, 2018, and their respective carrying amounts are as follows:

Financial Instruments (all amounts in thousands of EUR)	Category		Carrying amount	
	IAS 39	IFRS 9	IAS 39 at Dec. 31, 2017	IFRS 9 at Jan. 1, 2018
Other investments (Securities and other financial assets)	Available-for-sale financial assets	At fair value through profit or loss ¹⁾	1,566	1,566
Non-current securities (Securities and other financial assets)	Held-to-maturity investments	At amortized cost	1,223	1,223
Other financial assets (Securities and other financial assets)	Loans and receivables	At amortized cost	1,333	1,333
Trade receivables	Loans and receivables	At amortized cost	386,200	386,200
Derivative assets (Other receivables and assets including derivatives)	At fair value through profit or loss	At fair value through profit or loss	2,063	2,063
Current securities (Other receivables and assets)	Held-to-maturity investments	At amortized cost	1,559	1,559
Other receivables (Other receivables and assets)	Loans and receivables	At amortized cost	12,527	12,527
Cash and cash equivalents	Loans and receivables	At amortized cost	197,910	197,910
Interest-bearing financial liabilities including liabilities from finance lease	Other financial liabilities	At amortized cost	212,468	212,468
Trade liabilities	Other financial liabilities	At amortized cost	218,533	218,533
Other liabilities	Other financial liabilities	At amortized cost	7,400	7,400
Derivative liabilities	At fair value through profit or loss	At fair value through profit or loss	995	995

¹⁾ Other investments are equity shares in unconsolidated companies. As of December 31, 2018, these total thous. EUR 1,188 (December 31, 2017: thous. EUR 1,566). Generally, they are to be measured at fair value. However, cost represents an appropriate estimate of the fair value and the amount is being of low significance for the Group.

As part of the implementation of IFRS 9, a new impairment model was introduced, which in principle affects the measurement of financial assets of the Group, in particular of trade receivables. The future-oriented expected loss model of IFRS 9 has replaced the incurred loss model used in IAS 39. The Group has implemented a framework for determination of a simplified expected credit loss from trade receivables in accordance with IFRS 9, which provides reliable results based on suitable parameters. The application of the new impairment principles of IFRS 9 does not result in additional allowances concerning trade receivables. The Group considers the other financial assets as insignificant regarding a potential impairment.

As the Group does not apply hedge accounting, there are no corresponding changes resulting from IFRS 9.

The application of IFRS 15 “Revenue from contracts with customers” has been mandatory for the first time since January 1, 2018. The newly introduced five-step model is used to assess the amount and timing respectively period for revenue recognition.

Regarding the transition options the MM Group has decided to use the modified retrospective approach for the first time adoption. Accordingly, no restatement of the comparative period 2017 was made.

The following table presents the effects resulting from existing liabilities for customer rebates and bonuses on the opening balance as of January 1, 2018 at initial adoption of IFRS 15 “Revenue from contracts with customers”:

(all amounts in thousands of EUR)	Dec. 31, 2017	Adjustments of IFRS 15	Jan. 1, 2018
TOTAL EQUITY AND LIABILITIES			
Deferred income and other current liabilities	97,689	8,904	106,593
Provisions for current liabilities and charges	23,366	(8,904)	14,462

The disaggregation of performance obligations under certain circumstances according to IFRS 15 may require a separation of performance obligations related to rendered transportation services, depending on the individual terms of delivery agreed with customers. Compared to the total sales of each division, these sales are considered insignificant, therefore sales from goods and sales from transportation services are not disclosed separately. A potential accrual resulting from this beyond the balance sheet date was not recognized due to immateriality. The amounts are monitored on a regular basis.

IFRS 16 “Leases” was issued in January 2016, replacing IAS 17, IFRIC 4, SIC-15 as well as SIC-27 and modifying the way in which leases are reported. IFRS 16 introduces a standardized reporting model according to which leases will be recognized on the lessee’s balance sheet in the future, regardless of whether an operating or finance lease is involved in accordance with the criteria of IAS 17. A lessee will recognize a right-of-use asset to the underlying asset of the lease agreement and a liability representing the lease payment obligations. The Group will use the exceptions governing short-term leases and leases relating to low-value assets and therefore these transactions will not be reported on the balance sheet but as expense as incurred. Reporting for the lessor remains almost unchanged compared to the current standard and will thus have no material impact on the consolidated financial statements for 2019. The Group applies IFRS 16 as of January 1, 2019 using the modified retrospective approach. Comparative amounts for the year prior to the first-time adoption will not be restated.

Based on the analysis which was initiated in the previous year we have performed a more detailed evaluation of each component of agreement in regard of IFRS 16 in 2018. Additionally, a Group-wide IFRS 16 transition project has begun in the first half of 2018. In a subsequent phase, the documentation for various accounting policies and relevant assumptions according to IFRS 16, as for example determination of the lease term, incremental borrowing rate as well as exercising and not exercising the extension or termination option, was prepared. In respect of the conducted analysis, the impact of the first-time adoption will mainly result from lease agreements for real estate property.

As of the balance sheet date there are undiscounted payment obligations from non-cancellable operating lease payments of thous. EUR 75,629. After taking into consideration the applied exceptions, the conducted analysis indicates that the identified existing lease agreements are expected to result in the recognition of right-of-use assets in an amount of thous. EUR 52,498 and lease liabilities in the same amount of thous. EUR 52,498 in the consolidated balance sheet as of January 1, 2019.

Due to IFRS 16, the following effects are to be expected in the consolidated income statement: The operating profit of 2019 will increase by thous. EUR 889. The rental expense will decrease by thous. EUR 8,241, the remaining rental expense mainly concerns short-term leases and leases of low-value assets. Depreciation is expected to increase by thous. EUR 7,352, while interest expense, which is reported under financial result, will rise by thous. EUR 1,512.

As a result of the application of IFRS 16, the principal portion of the lease payments together with corresponding interest will be classified in cash flow from financing activities. Therefore the Group expects an increase in the cash flow from operating activities by thous. EUR 8,241 and a decrease in the cash flow from financing activities in the same amount.

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 if the Group holds less than 50 % of voting rights. The Group has the majority of shares and voting rights in all its controlled entities. There are no additional agreements which rule out control.

The subsidiaries 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.

All the effects of intercompany transactions are entirely eliminated.

Foreign currency translation

Assets 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 form part of a net investment in a foreign operation are initially reported as a separate component of equity and are recognized in the income statement only upon intentional repayment or disposal of the net investment.

The exchange rates of the relevant currencies of non-Euro participating countries used in preparing the consolidated financial statements and notes thereto were as follows:

Country:	Currency:	Exchange rate at Dec. 31, 2018	Exchange rate at Dec. 31, 2017	Annual average exchange rate 2018	Annual average exchange rate 2017
		1 EUR =	1 EUR =	1 EUR =	1 EUR =
Bulgaria	BGN	1.96	1.96	1.96	1.96
Chile	CLP	796	735	755	732
China	CNY	7.88	7.80	7.81	7.62
Colombia	COP	3,715	3,583	3,501	3,345
Czech Republic	CZK	25.72	25.54	25.67	26.33
Great Britain	GBP	0.89	0.89	0.89	0.87
Jordan	JOD	0.81	0.85	0.84	0.80
Malaysia	MYR	4.73	4.85	4.76	4.85
Norway	NOK	9.95	9.84	9.64	9.34
Poland	PLN	4.30	4.17	4.26	4.26
Romania	RON	4.66	4.66	4.66	4.57
Russia	RUB	79.46	68.87	73.49	65.69
Switzerland	CHF	1.13	1.17	1.15	1.11
Tunisia	TND	3.43	2.95	3.12	2.69
Turkey	TRY	6.03	4.52	5.44	4.09
Ukraine	UAH	31.71	33.50	32.31	30.06
Vietnam	VND	26,666	27,137	27,211	25,641

Business Combinations

All new acquisitions of subsidiaries and businesses are accounted for using the acquisition method.

The acquisition costs of the transaction correspond to the fair values of the assets transferred and liabilities received or taken over on the acquisition date.

The acquired assets and liabilities are measured at fair value at the acquisition date. Depending on the nature and materiality of the acquisition, basically land, buildings, and machines are valued 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 an independent external expert report 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.

Any remaining excess of the acquisition costs over the Group's share in the fair value of identifiable net assets 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 and the reported amounts of revenues and expenses during the reporting period. In the end, actual amounts may differ from these assumptions and estimates. Assumptions and estimates are constantly monitored, and any changes are prospectively recognized.

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, and 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.

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.

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 gross margin/costs development. The assumptions involved in these calculations may change and may lead to an impairment loss in future periods.

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.

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, securities 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, 2018 and 2017, 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.

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.

Provisions for pensions, severance payments, and anniversary bonuses

The actuarial calculation of obligations regarding to 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 lead to a significant change in non-current provision as well as equity.

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.

5 — CHANGES IN THE CONSOLIDATED COMPANIES

a — 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 amounts 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).

b — Changes in 2017

Acquisitions (of shares)

In January 2017, the division MM Packaging increased its majority interest in the Vietnamese folding carton producer MM Packaging Vidon Limited Liability Company, located in Ho Chi Minh City, at a price of thous. EUR 10,344 from 65.10 % to 100 %. The related payment was already effected in the financial year 2016.

In October 2017, the division MM Packaging acquired a part of the business from ASG Poland S.A., Bydgoszcz, Poland, in the form of an asset deal. The company produces folding cartons for cosmetic and personal care products. The aim of the acquisition consists in continuing to expand the portfolio in the high-quality product segment as well as to exploit synergy effects through the strategic proximity of existing sites.

The acquisition costs for the purchase amounted to thous. EUR 8,116 and were completely paid in cash. Inclusion into the Group and division was effected on October 3, 2017.

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)	Oct. 3, 2017
Property, plant and equipment	7,932
Intangible assets	3,958
Deferred tax assets	116
Inventories	2,888
Trade receivables	3,948
Prepaid expenses and other current assets	69
Cash and cash equivalents	68
Deferred tax liabilities	(1,595)
Other non-current provisions	(118)
Trade liabilities	(2,141)
Other current provisions and liabilities	(532)
Net assets	14,593

The trade receivables comprise gross contractual receivables amounting to thous. EUR 4,053, thous. EUR 105 of which are estimated as presumably irrecoverable, resulting in a fair value of thous. EUR 3,948. In case of other receivables the fair value of thous. EUR 69 corresponds to the gross amount.

The negative goodwill was recognized as a result of the acquisition as follows:

(in thousands of EUR)	Oct. 3, 2017
Consideration transferred	8,116
Fair value of identifiable net assets	(14,593)
Negative goodwill	(6,477)

The negative goodwill was reported under other income in the consolidated income statement and mainly results from the fact that the acquired part of the business operation was already in structural difficulties that could not be resolved by the seller. Accordingly, the pressure to sell was high and the MM Group had a good negotiation position. Because of these circumstances, a purchase price below the fair values was possible.

The acquisition-related costs of thous. EUR 361 were recorded as expense in the financial year 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 2017 amounted to thous. EUR 3,920 and thous. EUR -1,699. Profit before tax was burdened by a non-recurring effect amounting to thous. EUR 475, which results from the valuation of inventory performed in the course of the purchase price allocation and was recognized in the fourth quarter as cost of sales. The pro forma disclosures in respect of the contribution of the business to the Group's sales and the Group's profit before tax if the acquisition would have occurred on January 1, 2017 cannot be reliably determined as the acquired part of the business was an integral part of a local group of companies and no separate determination of earnings was carried out for this part.

Other changes

In April 2017, the division MM Packaging incorporated 100 % of its interests in TEC MMP SARL, Sfax, Tunisia and MM Packaging Tunisie S.A.R.L., Tunis, Tunisia into the Société Tunisienne des Emballages Modemes (STEM), Tunis, Tunisia in exchange for a capital increase and an interest of 45 % in a thus created associated company. The deconsolidation of the two entities results in a loss of thous. EUR 2,283 that derives from the reclassification of accumulated foreign currency translation from other comprehensive income to the income statement recorded under "other financial result – net". The addition of the participation in STEM in the amount of thous. EUR 3,628 exceeds the disposed net assets and results in an income of thous. EUR 90 that is accounted for in "other operating income". STEM represents an associated company and is accounted for based on the equity method. As of December 31, 2017, STEM is reported under "Investments in associated companies, securities and other financial assets" with an amount of thous. EUR 3,175.

In December 2017, MM Packaging Malaysia SDN. BHD., Kuala Lumpur, Malaysia was deconsolidated in the course of the liquidation process. The deconsolidation results in a loss of thous. EUR 321 that derives from the reclassification of accumulated foreign currency translation from other comprehensive income to the income statement recorded under "other financial result – net".

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

6 — DEVELOPMENT OF FIXED ASSETS

a — Property, plant and equipment

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 expense 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 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

Development of property, plant and equipment 2017

(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, 2017	524,917	1,543,945	161,212	68,303	2,298,377
Effect of exchange rate changes	(5,855)	(16,044)	(1,552)	(1,142)	(24,593)
Changes in consolidated companies	3,387	4,505	40	0	7,932
Additions	10,551	61,343	10,113	84,617	166,624
Disposals	(376)	(22,190)	(2,460)	0	(25,026)
Reclassifications	8,039	44,489	2,496	(55,054)	(30)
Balance at Dec. 31, 2017	540,663	1,616,048	169,849	96,724	2,423,284
ACCUMULATED DEPRECIATION AND IMPAIRMENT:					
Balance at Jan. 1, 2017	248,340	1,135,800	121,670	(83)	1,505,727
Effect of exchange rate changes	(1,509)	(8,294)	(980)	1	(10,782)
Disposals	(125)	(21,647)	(2,140)	0	(23,912)
Depreciation/amortization expense for the year	13,628	69,045	10,945	0	93,618
Reclassifications	809	(881)	(177)	7	(242)
Balance at Dec. 31, 2017	261,143	1,174,023	129,318	(75)	1,564,409
NET BOOK VALUE:					
Net book value at Dec. 31, 2017	279,520	442,025	40,531	96,799	858,875
Net book value at Dec. 31, 2016	276,577	408,145	39,542	68,386	792,650

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 their estimated useful lives ranging from five to ten 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 2018

(in thousands of EUR)	Concessions, licenses and similar rights	Goodwill	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

Development of intangible assets including goodwill 2017

(in thousands of EUR)	Concessions, licenses and similar rights	Goodwill	Other intangible assets	Intangible assets including goodwill
ACQUISITION OR MANUFACTURING COSTS:				
Balance at Jan. 1, 2017	56,326	118,981	32,966	208,273
Effect of exchange rate changes	(50)	(2,255)	(1,457)	(3,762)
Changes in consolidated companies	562	0	3,396	3,958
Additions	1,459	0	0	1,459
Disposals	(125)	0	0	(125)
Reclassifications	173	0	0	173
Balance at Dec. 31, 2017	58,345	116,726	34,905	209,976
ACCUMULATED AMORTIZATION AND IMPAIRMENT:				
Balance at Jan. 1, 2017	48,927	9,044	21,095	79,066
Effect of exchange rate changes	(44)	5	(1,326)	(1,365)
Disposals	(125)	0	0	(125)
Amortization expense for the year	2,905	0	3,169	6,074
Reclassifications	63	0	0	63
Balance at Dec. 31, 2017	51,726	9,049	22,938	83,713
NET BOOK VALUE:				
Net book value at Dec. 31, 2017	6,619	107,677	11,967	126,263
Net book value at Dec. 31, 2016	7,399	109,937	11,871	129,207

In the financial year 2018, the depreciation and amortization expense recorded under the “Property, plant and equipment” and “Intangible assets including goodwill” amounted to thous. EUR 107,278 (2017: thous. EUR 99,692). 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.

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 for internal management purposes at the level of the operating segments MM Karton and MM Packaging. Therefore the impairment test is carried out at this organizational level. Goodwill is allocated to the segments as follows:

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Goodwill MM Karton	4,612	4,573
Goodwill MM Packaging	101,852	103,104
Goodwill Group	106,464	107,677

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 so-called 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 10.11 % (2017: 12.07 %) for the segment MM Karton and to 13.02 % (2017: 14.43 %) 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 (2017: five years). The last planned year is also used for the cash flow calculation hereafter and modified using further assumptions for the terminal value.
Growth rate	For the Free Cash Flows after the five year detailed forecast period a continuous growth rate of 1.5 % p. a. (2017: 1.5 % p. a.) is considered.
Gross margin/Cost development	Based on the expectation of the Company, a stable gross margin and fixed cost development is assumed.

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 fair value less cost to sell should be calculated at first in case of a shortfall.

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, 2018 amounts to 16.95 % (December 31, 2017: 16.67 %) for the operating segment MM Karton and to 18.30 % (December 31, 2017: 19.04 %) 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, 2018 nor as of December 31, 2017, for both operating segments.

As of December 31, 2018, the Group's market capitalization amounted to thous. EUR 2,200,000 (December 31, 2017: thous. EUR 2,450,000), and the book value of equity amounted to thous. EUR 1,384,759 (December 31, 2017: thous. EUR 1,318,590).

The Group has conducted its annual impairment test as of December 31, 2018 and December 31, 2017. Neither in 2018 nor in 2017 an impairment on goodwill was recognized on this basis.

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. In general, securities in the Group are measured at amortized cost based on the business model and the fact that the cash flows are solely payments of principal and interest.

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 holds debt instruments solely in order to collect contractual cash flows (payments of principal and interest). They are measured at amortized cost.

A financial asset that is not measured, as explained above, at amortized cost or at fair value through other comprehensive income shall be valued at fair value through profit or loss. This includes debt instruments 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 are thus measured at cost.

In the Group, derivative financial assets 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 purchase or sell 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. A detailed description of the model can be found in this note under section c) under credit and default risk. Generally, only significant deviating effects that result from the application of the expected loss model are booked.

The Group considers the other financial assets as insignificant regarding a potential impairment.

Financial liabilities of the Group comprise interest-bearing financial liabilities including finance lease, 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, 2018		
Securities and other financial assets ¹⁾	1,188	1,442	2,630
Trade receivables	0	367,531	367,531
Other receivables and assets including derivatives	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.

(in thousands of EUR)	Financial assets measured at fair value through profit and loss	Available-for-sale financial assets	Held-to-maturity investments	Loans and receivables	Total
	At fair value	At cost	At amortized cost²⁾		
Carrying amount at Dec. 31, 2017					
Securities and other financial assets ¹⁾	0	1,566	1,223	1,333	4,122
Trade receivables	0	0	0	386,200	386,200
Other receivables and assets including derivatives	2,063	0	1,559	12,527	16,149
Cash and cash equivalents	0	0	0	197,910	197,910
Total	2,063	1,566	2,782	597,970	604,381

¹⁾ For measurement of "other financial assets" classified as "available-for-sale financial assets", see note 7f of the annual report 2017.

²⁾ The reported amounts regarding financial assets measured at amortized cost represent a proper approximation to the fair value.

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	Total
(in thousands of EUR)	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 including derivatives	963	18,480	19,443
Total	963	435,276	436,239

	Financial liabilities measured at fair value through profit and loss	Other financial liabilities	Total
	At fair value	At amortized cost	
(in thousands of EUR)	Carrying amount at Dec. 31, 2017		
Interest-bearing financial liabilities incl. finance lease	0	212,468	212,468
Trade liabilities	0	218,533	218,533
Other liabilities including derivatives	995	7,400	8,395
Total	995	438,401	439,396

The following table shows the types of income and expenses from financial assets assigned to categories respectively measurement methods:

(in thousands of EUR)	At fair value through profit and loss	At amortized cost	Total
	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)
<i>Thereof impairment</i>	<i>0</i>	<i>(258)</i>	<i>(258)</i>
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.

(in thousands of EUR)	Financial assets measured at fair value through profit and loss	Available-for- sale financial assets	Held-to-maturity investments	Loans and receivables	Total
	At fair value	At cost	At amortized cost		
Income and expense 2017					
In profit for the year	1,567	617	35	2,302	4,521
Interest/Dividends received	0	618	35	1,913	2,566
Fair value/Carrying amount changes	1,567	(1)	0	389	1,955
<i>Thereof impairment</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>389</i>	<i>389</i>
In other comprehensive income	0	0	0	0	0
Change in fair value	0	0	0	0	0
Net profit/loss	1,567	617	35	2,302	4,521

The following table shows the types of income and expenses from financial liabilities assigned to categories respectively measurement methods:

	At fair value through profit and loss	At amortized cost	Total
(in thousands of EUR)	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)

	Financial liabilities measured at fair value through profit and loss	Other financial liabilities	Total
	At fair value	At amortized cost	
(in thousands of EUR)	Income and expense 2017		
In profit for the year	(34)	(6,185)	(6,219)
Interest	0	(6,185)	(6,185)
Fair value/Carrying amount changes	(34)	0	(34)
Net profit/loss	(34)	(6,185)	(6,219)

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, 2018, the Group had concluded foreign exchange forward, swap and option contracts with a nominal value of receivables of thous. EUR 174,282 (December 31, 2017: thous. EUR 170,504) and liabilities of thous. EUR 174,443 (December 31, 2017: thous. EUR 169,264) with a negative total market value of thous. EUR 246 (December 31, 2017: positive total market value of thous. EUR 1,068).

The derivative financial instruments are recorded in the consolidated balance sheet under "Prepaid expenses, securities and other current assets" as current assets in the amount of thous. EUR 717 (December 31, 2017: thous. EUR 2,063) and under "Deferred income and other current liabilities" as current liabilities in the amount of thous. EUR 963 (December 31, 2017: thous. EUR 995).

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. For the measurement, the Group applies a simplified approach using an allowance matrix which considers probability-weighted total credit loss ("lifetime 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, Latin America, 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 application of the new impairment principles of IFRS 9 does not result in additional allowances concerning trade receivables. 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 financial liabilities arising from interest-bearing financial liabilities including finance lease, trade liabilities and payment obligations and payment entitlements arising from derivative financial instruments as well as interest for interest-bearing financial liabilities including finance lease 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, 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
Balance at Dec. 31, 2017					
Interest-bearing financial liabilities incl. finance lease	3,996	16,582	20,785	21,105	150,000
Interest for interest-bearing financial liabilities incl. finance lease	207	3,331	3,280	9,439	8,731
Trade liabilities	217,672	861	0	0	0
Payment obligations from derivative financial instruments	130,962	38,302	0	0	0
Payment entitlements for derivative financial instruments	(132,291)	(38,213)	0	0	0

Currency risk

Currency risk is the risk arising from changes in the value of financial instruments due to exchange rates 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, 2018 (December 31, 2017) stated below changed by the below-stated percentage ("Volatility"), assuming that all other variables remained constant, the profit for the year and hence equity would have increased or decreased by the following values.

Currency	Volatility	Impact on profit for the year and equity in thousands of EUR	
		2018	2017
EUR ¹⁾	+/- 5 %	-/+ 340	-/+ 85
GBP	+/- 5 %	+/- 101	+/- 80
USD	+/- 5 %	-/+ 59	-/+ 83

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, 2018, 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, 2018 (December 31, 2017) 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	
		2018	2017
Financial assets with variable interest	+/- 0.1 %	+/-20	+/-48
Financial liabilities with variable interest	+/- 0.1 %	-/+100	-/+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 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.

Equity and total assets as of December 31, 2018 and December 31, 2017 amounted to:

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Total equity	1,384,759	1,318,590
Total assets	2,065,705	2,013,406
Total equity to total assets	67.0 %	65.5 %

The aim of capital management to achieve a total equity to total assets 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.

There are financial covenants partly agreed on with lenders for the interest-bearing financial liabilities. The financial covenants are mainly related to the total equity to total assets 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)	Level 2	
	Dec. 31, 2018	Dec. 31, 2017
Financial assets:		
Derivative financial instruments	717	2,063
Financial liabilities:		
Derivative financial instruments	963	995

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 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 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 based on the prices quoted on active markets (Level 1 measurement) or using parameters for which no observable market data exist (Level 3 measurement). There are currently no financial instruments for which these measurement methods would be applicable in the Group.

As of December 31, 2018, other financial assets classified as “at fair value through profit or loss” include investments in unconsolidated companies in the amount of thous. EUR 1,188 (December 31, 2017: thous. EUR 1,566). In general, these must be measured at fair value. However, cost represents an appropriate estimate of fair value and the amount is of low significance for the Group.

8 — INVESTMENTS IN ASSOCIATED COMPANIES, SECURITIES, AND OTHER FINANCIAL ASSETS

Investments in associated companies

Investments in companies in which the Group has the ability to exercise significant influence, but no dominant control over its operating and financial policy 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.

Securities

The Group measures its securities at amortized cost. Premiums and accretions of discount of debt securities are allocated over their maturity period and are included in the income statement under the positions “financial income” or “financial expenses”.

Securities are to be classified as non-current if they are not going to be sold or not intended to be sold within 12 months of the balance sheet date. Otherwise, they must be classified as current. Currently the Group does not hold any current securities.

Other financial assets

Other financial assets comprise other investments, loans, and other financial investments. Other investments are defined as part of the category “at fair value through profit and loss”, however, cost represents an appropriate estimate of the fair value and the amount is of low significance for the Group.

The carrying amounts of investments in associated companies, non-current securities, and other financial assets consist of:

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Investments in associated companies	2,136	3,307
Liability insurance not pledged to beneficiaries	1,281	1,333
Other investments	1,188	1,566
Non-current securities	161	1,223
Investments in associated companies, securities and other financial assets	4,766	7,429

As of December 31, 2018, the Group held only non-current fixed-interest-bearing securities in the amount of thous. EUR 161. In the previous year, current and non-current securities of the Group comprised bonds and other fixed-interest-bearing securities with a book value of thous. EUR 2,782.

The Group holds shares in Société Tunisienne des Emballages Modernes (STEM), Tunis, Tunisia (see notes 5 and 33). The shares in this company represent an individually immaterial associated company that is accounted for using the equity method. The following table summarizes the financial information:

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Share of result for the year	(347)	(453)
Share of other comprehensive income ¹⁾	(824)	0
Share of total comprehensive income	(1,171)	(453)

¹⁾ 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 utilization of the deductible temporary differences. Unrecognized deferred tax entitlements are reassessed on each balance sheet date. If losses are incurred in the current period or have been incurred in the previous period, deferred taxes 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 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, 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.

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. In case of a distribution of retained earnings of certain subsidiaries, the tax burden may increase under applicable country-specific tax laws and existing double-taxation treaties, for which in some cases a deferred tax liability will be formed.

a — Deferred taxes recognized in the balance sheet

Deferred taxes 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, 2018	Dec. 31, 2017
Intangible assets	1,943	2,532
Property, plant and equipment	9,389	8,308
Inventories	6,247	6,007
Defined benefit plans and other liabilities and charges	21,166	21,337
Loans receivable, investments and financial assets	1,615	1,298
Loss carryforwards	13,908	14,311
Other	3,740	2,921
Gross deferred tax assets	58,008	56,714
Unrecognized deferred tax assets	(12,362)	(10,758)
Net deferred tax assets	45,646	45,956
Offset	(22,073)	(25,381)
Deferred tax assets in the balance sheet	23,573	20,575
Intangible assets	(3,271)	(4,710)
Property, plant and equipment	(10,873)	(12,213)
Inventories	(901)	(1,184)
Defined benefit plans and other liabilities and charges	(11,515)	(9,716)
Loans receivable, investments and financial assets	(3,485)	(4,129)
Other	(6,425)	(7,803)
Net deferred tax liabilities	(36,470)	(39,755)
Offset	22,073	25,381
Deferred tax liabilities in the balance sheet	(14,397)	(14,374)

The unrecognized deferred tax assets in the amount of thous. EUR 12,362 (December 31, 2017: thous. EUR 10,758) comprise thous. EUR 10,834 (December 31, 2017: thous. EUR 9,121) of unrecognized loss carryforwards.

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

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Deferred tax assets, realized within 12 months	11,543	12,492
Deferred tax assets, realized after 12 months	34,103	33,464
Deferred tax assets	45,646	45,956
Deferred tax liabilities, realized within 12 months	(8,339)	(6,055)
Deferred tax liabilities, realized after 12 months	(28,131)	(33,700)
Deferred tax liabilities	(36,470)	(39,755)

Deferred tax liabilities which result from the difference between the tax carrying amount of investments in subsidiaries and pro-rata equity (Outside-Basis-Differences) were not recognized for certain subsidiaries and investments in associated companies, as a distribution of these retained earnings is not intended because the respective profits will be reinvested or remain tax-free in the foreseeable future. These retained earnings amounted to thous. EUR 872,229 at December 31, 2018 (December 31, 2017: thous. EUR 815,198). 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.

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, 2018	Dec. 31, 2017
Loss carryforwards with expiration	28,557	19,910
Loss carryforwards with no expiration	27,455	38,433
Loss carryforwards	56,012	58,343
(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Recognized loss carryforwards	12,288	20,577
Unrecognized loss carryforwards	43,724	37,766
Loss carryforwards	56,012	58,343

The loss carryforwards limited in time will expire between 2019 and 2024 unless they are utilized before these dates.

The assessment of the recognition of loss carryforwards showed that for thous. EUR 12,288 (December 31, 2017: thous. EUR 20,577), deferred tax assets amounting to thous. EUR 3,074 (December 31, 2017: thous. EUR 5,190) were recognized. For the remaining amount of thous. EUR 43,724 (December 31, 2017: thous. EUR 37,766), deferred tax assets amounting to thous. EUR 10,834 (December 31, 2017: thous. EUR 9,121) 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, 2018	Year ended Dec. 31, 2017
1 year	810	0
2 years	1,189	1,221
3 years	4,377	3,386
4 years	9,855	7,039
5 years	8,621	3,405
After 5 years	784	2,504
No expiration	18,088	20,211
Total	43,724	37,766

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, 2018	Year ended Dec. 31, 2017
Current taxes:		
Current period	55,816	48,622
Due to utilization of previously unrecognized loss carryforwards	(15)	(49)
Prior periods	(346)	(487)
Deferred taxes:		
Due to temporary differences	(3,536)	111
Due to tax loss carryforwards of the current period	(182)	(312)
Due to utilization of recognized loss carryforwards	2,259	2,520
Due to change of allowances	(31)	(60)
Due to tax rate changes	(218)	91
Income tax expense	53,747	50,436

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 2018 amounting to thous. EUR 1,280 (2017: gains amounting to thous. EUR 3,602). Thereon deferred taxes amounting to thous. EUR 429 (2017: negative amount of thous. EUR 927), were recognized for the financial year 2018. As a result, actuarial losses from defined benefit plans after tax amounted to thous. EUR 851 (2017: gains of thous. EUR 2,675).

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, 2018	Year ended Dec. 31, 2017
Applicable tax rate	24.56 %	23.83 %
Non-deductible expenses and tax-free income	(2.17 %)	(1.36 %)
Tax effect from unrecognized loss carryforwards of the financial year	1.51 %	1.62 %
Tax effect from utilization of unrecognized loss carryforwards	(0.01 %)	0.00 %
Tax effect from change of deferred tax assets allowances	0.09 %	0.00 %
Tax effect from capital gains and withholding tax	1.56 %	1.13 %
Tax effect from tax rate changes	(0.10 %)	0.04 %
Non-periodic income tax expense or revenue (current and deferred)	(0.82 %)	(0.80 %)
Other effects	0.04 %	0.09 %
Effective tax rate	24.66 %	24.55 %

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 stocktaking 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, 2018	Dec. 31, 2017
Raw materials, manufacturing and operating supplies	191,653	186,788
Work in process	26,412	28,150
Finished goods and goods for resale	158,108	154,396
Total	376,173	369,334
Write-downs	(29,313)	(28,293)
Inventories – net	346,860	341,041

In the financial year 2018, write-downs of inventories recognized as an expense amounted to thous. EUR 8,249 (2017: thous. EUR 9,825), the reversal of write-downs as a result of changes in prices of inventories recognized as income amounted to thous. EUR 1,450 (2017: thous. EUR 747), both under cost of goods sold. The carrying amount of inventories carried at net realizable value amounted to thous. EUR 13,782 (2017: thous. EUR 16,661).

Cost of materials and purchased services recognized in cost of goods sold can be broken down as follows:

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Cost of materials	1,264,210	1,291,694
Cost of purchased services	39,753	36,954
Total	1,303,963	1,328,648

11 — TRADE RECEIVABLES

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

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Trade receivables	368,918	387,392
Allowances	(1,387)	(1,192)
Trade receivables – net	367,531	386,200

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

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Up to 30 days overdue	5,779	6,222
31 – 60 days overdue	2,386	1,924
61 – 365 days overdue	2,614	2,429
More than 365 days overdue	102	41
Total of trade receivables overdue but not impaired	10,881	10,616

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)	2018	2017
Allowances at the beginning of the year	1,192	1,614
Effect of exchange rate changes	(14)	(21)
Changes in consolidated companies	0	105
Utilization	(49)	(117)
Reversal	(322)	(752)
Increase	580	363
Allowances at the end of the year	1,387	1,192

12 — PREPAID EXPENSES, SECURITIES, AND OTHER CURRENT ASSETS

Prepaid expenses, securities and other current assets are as follows:

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Value-added tax receivables	22,614	21,644
Other tax receivables	17,898	14,383
Payments on account	7,405	1,271
Other receivables and other assets	18,085	18,437
Prepaid expenses	10,000	8,523
Prepaid expenses, securities and other current assets	76,002	64,258
Thereof financial assets	9,836	16,149
Thereof non-financial assets	66,166	48,109

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.

b — Retained earnings/dividend

Retained earnings comprise accumulated results from previous years.

Due to the change of majority interests, a residual amount of thous. EUR 47 was recognized directly in equity in the financial year 2018, which increased the retained earnings (2017: decrease of retained earnings by thous. EUR 6,153).

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, 2018, the distributable unappropriated retained earnings amounted to thous. EUR 65,000 (December 31, 2017: thous. EUR 66,000).

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

(in thousands of EUR)	2018	2017
Unappropriated retained earnings at Jan. 1	66,000	72,000
Net profit of the Company for the year ended Dec. 31	56,945	53,879
Changes in reserves	4,055	121
Dividend paid	(62,000)	(60,000)
Unappropriated retained earnings at Dec. 31	65,000	66,000

For the year ended December 31, 2018, the Management Board of the Company has proposed a dividend of EUR 3.20 per voting share after EUR 3.10 for 2017, resulting in a dividend of thous. EUR 64,000 as of the balance sheet date of 2018. The dividend for 2017, amounting to thous. EUR 62,000, was paid out on schedule on May 9, 2018 (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.

(in thousands EUR)	Dec. 31, 2018		Dec. 31, 2017	
	MM Karton	MM Packaging	MM Karton	MM Packaging
Non-current assets	377	36,712	378	42,559
Current assets	3,131	29,547	2,816	27,027
Non-current liabilities	569	22,059	531	30,292
Current liabilities	1,163	12,121	1,066	12,977
Net assets	1,776	32,079	1,597	26,317
Carrying amount of the non-controlling (minority) interests	715	1,449	633	1,776
	Year ended Dec. 31, 2018		Year ended Dec. 31, 2017	
Sales	5,802	41,654	5,097	49,371
Profit for the year	1,121	6,880	882	3,341
Thereof attributable to non-controlling (minority) interests	375	120	286	176
Total comprehensive income	1,504	7,553	1,169	1,564
Thereof attributable to non-controlling (minority) interests	379	169	290	(41)
Dividend paid to non-controlling (minority) interests	297	449	200	159
Net change in cash and cash equivalents	0	5,600	0	(813)

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 2018, profit and loss recognized in other comprehensive income consisted of foreign currency translations with a negative amount of thous. EUR 34,399 (2017: negative amount of thous. EUR 27,505) as well as actuarial losses in the amount of thous. EUR 1,280 (2017: gains of thous. EUR 3,602). Thereon deferred taxes in the amount of thous. EUR 429 (2017: negative amount of thous. EUR 927), were recognized for the financial year 2018.

14 — FINANCIAL LIABILITIES AND LEASES

Financial liabilities comprise interest-bearing financial liabilities including finance lease liabilities and are recognized at amortized cost. This amount is calculated as initially paid out nominal value less redemptions plus accrued interest.

a — Interest-bearing financial liabilities

As of December 31, 2018 and December 31, 2017, 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, 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 current interest-bearing financial liabilities	33,842
Thereof non-current interest-bearing financial liabilities	176,539

(in thousands of EUR)	Dec. 31, 2017
0.530 % EUR loan(s) due 2018	10,000
8.500 % JOD loan(s) due 2018	294
0.761 % EUR loan(s) due 2019	20,000
8.500 % JOD loan(s) due 2019	294
8.500 % JOD loan(s) due 2020	295
0.761 % EUR loan(s) due 2022	20,000
1.864 % EUR loan(s) due 2024	80,000
0.761 % EUR loan(s) due 2025	20,000
2.673 % EUR loan(s) due 2026	50,000
Used loan facilities	9,506
Interest-bearing financial liabilities	210,389
Thereof current interest-bearing financial liabilities	19,800
Thereof non-current interest-bearing financial liabilities	190,589

As of December 31, 2018, the weighted average interest rate for these financial liabilities was 1.869 % (December 31, 2017: 2.140 %).

As of December 31, 2018, the Group had current interest-bearing loan facilities available in the amount of thous. EUR 2,918 (December 31, 2017: thous. EUR 9,506), of which thous. EUR 2,918 (December 31, 2017: thous. EUR 9,506) were used as of the balance sheet date. As of December 31, 2018, the weighted average interest rate of these current loans, used by subsidiaries outside the Euro participating countries, was 8.500 % (December 31, 2017: 11.475 %). These loans are subject to common banking terms and conditions.

Of the interest-bearing financial liabilities, loans in the amount of thous. EUR 110,000 (December 31, 2017: thous. EUR 110,000) are subject to a fixed interest rate, whose fair value amounts to thous. EUR 113,203 as of December 31, 2018 (December 31, 2017: thous. EUR 113,531). The calculation is based on the present value of future cash flows discounted by the currently observable yield curve (Level 2).

No collaterals were provided in order to secure the financial liabilities described above. As of December 31, 2018, the Group had unused credit lines available in the amount of thous. EUR 390,000 (December 31, 2017: thous. EUR 390,000).

As of December 31, 2018, the current revolving bank credits in an amount of thous. EUR 10,000 (December 31, 2017: thous. EUR 10,000) are included in the interest-bearing financial liabilities.

b — Leases

The Group is predominantly lessee in lease transactions which are accounted for according to IAS 17 until the end of 2018. If the Group substantially bears all the risks and rewards incidental to the ownership of an asset, thus being considered as beneficial owner ("Finance Lease"), the asset is recognized under non-current assets at fair value or at the lower present value of the non-cancellable minimum lease payments, and a lease liability is accrued in the respective amount. For all remaining lease transactions ("Operating Lease"), the lease-related payments are recognized as expenses over the relevant term of the lease.

Finance lease liabilities

At the balance sheet dates, the future minimum lease payments under non-cancellable finance lease obligations, due on December 31 of the following years, were as follows:

(in thousands of EUR)	Dec. 31, 2018			Dec. 31, 2017		
	Future minimum lease payments	Interest	Present value of minimum lease payments	Future minimum lease payments	Interest	Present value of minimum lease payments
Less than one year	521	29	492	884	106	778
Between one and five years	827	18	809	1,424	123	1,301
Total future minimum lease payments	1,348	47	1,301	2,308	229	2,079

At December 31, 2018, the Group had capitalized assets from finance lease agreements with the following book values: land and buildings thous. EUR 3,066 (December 31, 2017: thous. EUR 3,161) as well as technical equipment and machines thous. EUR 2,473 (December 31, 2017: thous. EUR 3,187).

Operating lease

At the balance sheet dates, the future minimum lease payments under non-cancellable operating lease obligations due on December 31 of the following years were as follows:

(in thousands of EUR)	Dec. 31, 2018	Dec. 31, 2017
Less than one year	10,506	10,296
Between one and five years	28,856	29,831
More than five years	36,267	21,471
Total future minimum lease payments	75,629	61,598

The Group mainly rents and leases buildings, land, warehouses, offices, and other facilities. In the financial year 2018, the expenses relating to operating lease agreements amounted to thous. EUR 15,455 (2017: thous. EUR 14,850), thereof thous. EUR 4,952 (2017: thous. EUR 4,775) being attributable to contingent lease and rental payments. Contingent lease and rental payments mainly concern storage area that is leased depending on the amount of inventories to be stored.

Regarding the impact of the new IFRS 16, which will be applied as of January 1, 2019, please refer to note 2.

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 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

In 2017, 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, 2017	85,187	33,019	9,596	1,087	429	129,318
Effect of exchange rate changes	(619)	(436)	0	0	0	(1,055)
Changes in consolidated companies	0	118	0	0	0	118
Utilization	(4,059)	(2,569)	(1,261)	(373)	0	(8,262)
Reversal	0	0	0	(360)	0	(360)
Increase	3,196	2,674	1,273	208	0	7,351
IAS 19 remeasurements through other comprehensive income	(3,735)	158	0	0	0	(3,577)
Benefit payments from and contributions to plan assets	(2,336)	158	0	0	0	(2,178)
Balance at Dec. 31, 2017	77,634	33,122	9,608	562	429	121,355

As of December 31, 2018, securities with a fair value of thous. EUR 1,303 (December 31, 2017: thous. EUR 1,332) had been provided as security for provisions for pre-retirement programs within the scope of the respective legal commitments. At December 31, 2018 and December 31, 2017, those securities were deducted 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 particular 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 are 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 5,168 in the financial year 2018 (2017: thous. EUR 5,117).

Defined benefit obligations in the Group consist of pensions and severance payments. These obligations exist in several countries where the Group has employees, particularly 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 the 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.

The Group operates a defined benefit pension plan in Great Britain 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. Under this method, the actuarial calculation of future obligations is based on the proportionate obligations as of the balance sheet date. The valuation was conducted based on assumptions and assessments as of the balance sheet date. Significant influencing factors were discount interest rate, estimated life expectancy, expected salary growth rate, expected pension growth rate as well as retirement age.

Actuarial gains and losses which result from changes in the number of plan participants and from differences between actual trends and estimates that are the basis for calculation are recognized in other comprehensive income in the consolidated comprehensive income statement according to IAS 19.

The calculation of pension and other benefit obligations is based on the following actuarial assumptions:

(in %)	Dec. 31, 2018		Dec. 31, 2017	
	Pensions	Severance	Pensions	Severance
Discount rate	2.10 %	2.64 %	1.88 %	2.38 %
Salary growth rate	2.50 %	3.03 %	2.50 %	2.96 %
Pension growth rate	2.26 %	-	2.28 %	-

Valuation of life expectancy was performed based on local mortality tables. These are in particular for Austria: AVÖ 2018-P "Angestellte" or "Gemischt" (2017: AVÖ 2008-P "Angestellte" or "Gemischt" - Pagler & Pagler), for Germany: Heubeck-Richttafeln 2018 G (2017: 2005 G), for Great Britain: Post Retirement and Pre Retirement: S2PA CMI_2017_M/F [1.25 %] (2017: S2PA CMI_2016_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:

(in thousands of EUR)	2018		2017	
	Pensions	Severance	Pensions	Severance
Service cost	1,395	1,599	1,553	1,816
Net interest on the net defined benefit liability	1,331	722	1,484	703
Past service costs	0	(57)	0	40
Effects due to plan changes	749	0	0	115
Administration costs	132	0	159	0
Net periodic benefit cost	3,607	2,264	3,196	2,674

The defined benefit obligation and plan assets developed as follows:

(in thousands of EUR)	2018		2017	
	Pensions	Severance	Pensions	Severance
Defined benefit obligation at the beginning of the year	125,507	33,223	130,726	33,274
Effect of exchange rate changes	(294)	(508)	(1,380)	(436)
Changes in consolidated companies	0	0	0	118
Service cost	1,395	1,599	1,553	1,816
Interest cost	2,328	724	2,435	707
Past service costs	0	(57)	0	40
Remeasurements	547	(703)	(3,768)	158
<i>Thereof (gains)/losses from change in demographic assumptions (e.g. life expectancy, retirement age)</i>	<i>1,658</i>	<i>(579)</i>	<i>(591)</i>	<i>48</i>
<i>Thereof (gains)/losses from change in financial assumptions (e.g. discount rate, salary growth rate, pension growth rate)</i>	<i>(4,388)</i>	<i>(999)</i>	<i>(375)</i>	<i>(101)</i>
<i>Thereof experience (gains)/losses (deviation between actual value and planned value)</i>	<i>3,277</i>	<i>875</i>	<i>(2,802)</i>	<i>211</i>
Benefit payments	(4,132)	(2,728)	(4,059)	(2,569)
Effects due to plan changes	749	0	0	115
Defined benefit obligation at the end of the year	126,100	31,550	125,507	33,223

(in thousands of EUR)	2018		2017	
	Pensions	Severance	Pensions	Severance
Fair value of plan assets at the beginning of the year	47,873	101	45,539	255
Effect of exchange rate changes	(190)	0	(761)	0
Interest income	997	2	951	4
Administrative expense	(132)	0	(159)	0
Remeasurements	(1,433)	1	(33)	0
<i>Thereof return on plan assets excluding amounts included in interest income - net</i>	<i>(1,433)</i>	<i>1</i>	<i>(33)</i>	<i>0</i>
Employer contributions	7,583	0	3,855	(111)
Benefit payments from plan	(1,524)	(104)	(1,519)	(47)
Fair value of plan assets at the end of the year	53,174	0	47,873	101

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 2018 and 2017 is represented as follows:

(in thousands of EUR)	2018							
	MM Karton				MM Packaging			
	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.

(in thousands of EUR)	2017							
	MM Karton				MM Packaging			
	Germany	Austria	Other countries ¹⁾	Total	Germany	Austria	Other countries	Total
Net periodic benefit cost	530	1,779	699	3,008	998	644	1,220	2,862
Defined benefit obligation at the end of the year	23,618	40,758	38,722	103,098	32,677	14,258	8,697	55,632
Fair value of plan assets at the end of the year	921	22,582	20,963	44,466	601	2,806	101	3,508

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

The employers' contributions to plan assets for the year 2019 are expected to amount to thous. EUR 4,281. This includes a contribution for increasing plan assets and for other expenses in Great Britain in the amount of thous. EUR 838.

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 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 % in equity instruments and of 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.

The portfolio structure of plan assets as of December 31, 2018 and of December 31, 2017:

(in thousands of EUR)	Dec. 31, 2018	in %	Dec. 31, 2017	in %
Equity instruments:				
– developed markets	6,094		6,597	
– emerging markets	1,187		494	
Total	7,281	14 %	7,091	15 %
Debt instruments:				
– Corporate bonds	11,956		7,985	
– Government bonds	521		3,666	
Total	12,477	23 %	11,651	24 %
Qualifying insurance policy pledged to beneficiaries	30,422	57 %	27,011	56 %
Money market investment/Bank deposit	2,995	6 %	2,221	5 %
Total	53,175	100 %	47,974	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 come to maturity in the upcoming years can be fulfilled from current cash flow of the Group and from remaining components of plan assets.

The net liability from pension and severance obligations and the reconciliation to the net liability recognized are as follows:

(in thousands of EUR)	Dec. 31, 2018		Dec. 31, 2017	
	Pensions	Severance	Pensions	Severance
Defined benefit obligation	126,100	31,550	125,507	33,223
<i>Thereof obligations covered by provisions</i>	53,927	30,034	55,520	31,561
<i>Thereof obligations covered by funds</i>	72,173	1,516	69,987	1,662
Less fair value of plan assets	(53,174)	0	(47,873)	(101)
Net liability recognized as provision for non-current liabilities and charges	72,926	31,550	77,634	33,122

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 remaining assumptions are kept constant.

(in %)	Impact on the defined benefit obligation 2018		
	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 %	

(in %)	Impact on the defined benefit obligation 2017		
	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 0.8 %	Decrease by 0.7 %
Pension growth rate	0.25 %	Increase by 2.5 %	Decrease by 2.3 %
		Increase by one year in assumption	
Retirement age		Decrease by 1.3 %	
Life expectancy		Increase by 3.6 %	

The weighted average duration of the defined benefit obligation is 14.6 years as of the balance sheet date (December 31, 2017: 15.1 years).

The expected maturity analysis of defined benefit obligations for the next ten years as of December 31, 2018 and December 31, 2017 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, 2018					
Defined benefit plans	4,591	4,806	22,389	38,398	70,184
As of Dec. 31, 2017					
Defined benefit plans	5,195	7,096	19,306	38,386	69,983

16 — TRADE LIABILITIES

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

Trade liabilities in an amount of thous. EUR 205,114 (December 31, 2017: thous. EUR 218,533) as of December 31, 2018 contain liabilities from acquisition of property, plant and equipment, and intangible assets amounting to thous. EUR 9,572 (December 31, 2017: thous. EUR 15,156) 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 796 (December 31, 2017: thous. EUR 1,226).

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, 2018	Dec. 31, 2017
Obligations for personnel and social costs	74,254	73,693
Liabilities for customer rebates and bonuses	10,823	0
Other tax liabilities	10,335	11,466
Deferred income	2,678	3,012
Other liabilities	9,891	9,518
Deferred income and other current liabilities	107,981	97,689
Thereof financial liabilities	19,443	8,395
Thereof non-financial liabilities	88,538	89,294

Obligations for personnel and social costs particularly include premiums and bonuses for employees, unused vacations as well as other deferred personnel-related obligations.

Bonuses are set up in a way that customers receive a retrospective reimbursement if a certain purchase volume was reached within an invoicing period. The previous provisions for customer rebates and bonuses are now reported as "liabilities for customer rebates and bonuses" under "deferred income and other current liabilities" because of the new IFRS 15 provisions. The calculation is based on the bonus and rebates claims of customers included in the underlying customer arrangements.

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

(in thousands of EUR)	Customer rebates and bonuses	Sales	Other provisions	Total
Balance at Jan. 1, 2018	8,904	4,169	10,293	23,366
Adjustment due to IFRS 15	(8,904)	0	0	(8,904)
Adjusted balance at Jan. 1, 2018	0	4,169	10,293	14,462
Effect of exchange rate changes	0	(120)	(19)	(139)
Changes in consolidated companies	0	0	(20)	(20)
Utilization	0	(1,834)	(3,729)	(5,563)
Reversal	0	(147)	(692)	(839)
Increase	0	1,867	2,121	3,988
Balance at Dec. 31, 2018	0	3,935	7,954	11,889

In the financial year 2017, provisions for current liabilities and charges developed as follows:

(in thousands of EUR)	Customer rebates and bonuses	Sales	Other provisions	Total
Balance at Jan. 1, 2017	10,495	4,251	11,022	25,768
Effect of exchange rate changes	(87)	(102)	(27)	(216)
Changes in consolidated companies	88	0	0	88
Utilization	(5,682)	(2,729)	(3,474)	(11,885)
Reversal	(2,965)	(799)	(2,299)	(6,063)
Increase	7,055	3,548	5,071	15,674
Balance at Dec. 31, 2017	8,904	4,169	10,293	23,366

The previous provisions for customer rebates and bonuses are now shown as “liabilities for customer rebates and bonuses” under “deferred income and other current liabilities” because of the new IFRS 15 provisions (see note 17).

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, cigarette and pharmaceutical packaging, and high-grade confectionary).

Data provided by the management information system on which the 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 are already eliminated in the segment results.

The Group measures the performance of its operating segments by assessing operating profit and profit for the year as they are 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 agreed terms of payment, a financial component does not exist. The variable component is considered as "liability for customer rebates and bonuses". The amount of this liability depends on the probable claim of a customer and is regularly evaluated and adjusted, if necessary.

Revenues from manufacturing and selling cartonboard and folding cartons are recognized at a point in time based on the agreed individual terms of delivery.

The segment reporting information concerning the Group's operating segments can be illustrated as follows:

(in thousands of EUR)	2018			
	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

(in thousands of EUR)	2017			
	MM Karton	MM Packaging	Eliminations	Consolidated
Sales to external customers	945,231	1,391,573	0	2,336,804
Intersegment sales	103,506	1,172	(104,678)	0
Total sales	1,048,737	1,392,745	(104,678)	2,336,804
Operating profit	73,555	141,459	0	215,014
Financial income	344	1,924	(320)	1,948
Financial expenses	(2,108)	(4,397)	320	(6,185)
Profit before tax	70,517	134,954	0	205,471
Income tax expense	(18,352)	(32,084)	0	(50,436)
Profit for the year	52,165	102,870	0	155,035
Capital expenditures	65,942	93,159	0	159,101
Depreciation and amortization	(42,352)	(57,340)	0	(99,692)
Segment assets	1,003,562	1,091,080	(81,236)	2,013,406
Segment liabilities	275,370	500,682	(81,236)	694,816
Employees per segment as of December 31	2,524	7,332		9,856

The following table shows a country-by-country breakdown of net sales based on shipment destinations as well as a summary of non-current assets and capital expenditures based on locations:

(in thousands of EUR)	2018			2017		
	Net sales	Non-current assets	Capital expenditures	Net sales	Non-current assets	Capital expenditures
Austria	51,439	203,075	29,294	53,090	195,286	27,116
Germany	444,529	266,720	39,165	452,228	258,655	39,956
France	284,138	78,644	4,398	279,188	83,186	3,167
Great Britain	207,864	4,151	1,711	197,706	3,956	2,837
Other Western European countries	402,766	69,218	9,279	393,289	66,097	19,611
Eastern Europe (including Turkey)	629,980	226,006	32,490	609,884	234,051	24,587
Asia and MENA	168,829	84,150	6,798	192,698	91,084	33,593
Latin America	114,887	43,511	1,269	123,391	52,823	8,234
Other	33,226	0	0	35,330	0	0
Consolidated total	2,337,658	975,475	124,404	2,336,804	985,138	159,101

Non-current assets and capital expenditures comprise property, plant and equipment, and 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, 2018	Year ended Dec. 31, 2017
Insurance claims	3,307	2,472
Result of deconsolidations ¹⁾	2,882	90
Rental income	1,147	1,467
Gains and losses from disposal of property, plant and equipment, and intangible assets – net	202	899
Negative goodwill ¹⁾	0	6,477
Other income – net	5,186	5,820
Other operating income	12,724	17,225

¹⁾ see Note 5

Other income – net includes income from compensation for damages in an amount of thous. EUR 1,917 (2017: thous. EUR 1,036) 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 overview comprises a breakdown of expenses by nature for the financial years 2018 and 2017:

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Cost of materials and purchased services	1,303,963	1,328,648
Personnel expenses	444,937	446,484
Depreciation	107,278	99,692
Other expenses	277,122	264,191
Total of cost of sales, selling and distribution, administrative and other operating expenses	2,133,300	2,139,015

22 — PERSONNEL EXPENSES

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

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Gross wages	197,691	198,156
Gross salaries	151,148	153,713
Severance expenses	5,555	5,258
Pension expenses	6,573	5,933
Expenses for statutory social security as well as payroll-related taxes and compulsory contributions	73,581	73,761
Other welfare expenses	10,389	9,663
Total	444,937	446,484

The average number of employees is as follows:

(Number of persons)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Factory workers	7,509	7,584
Office staff	2,138	2,213
Total	9,647	9,797

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, 2018	Year ended Dec. 31, 2017
Salaries and other short-term employee benefits (incl. remuneration of the Supervisory Board)	9,492	7,777
Post-employment benefits	4,464	1,146
	13,956	8,923
Reconciliation to salaries and other short-term employee benefits accounted for in personnel expenses	(128) ¹⁾	5,063 ²⁾
Total	13,828	13,986

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

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Fixed remuneration	2,668	2,342
Variable remuneration	6,349	4,960
	9,017	7,302
Reconciliation to salaries and other short-term employee benefits accounted for in personnel expenses	(128) ¹⁾	5,063 ²⁾
Total	8,889	12,365

¹⁾ Reversal of previous year

²⁾ Until 2016 the variable remuneration for the members of the Management Board was recognized as expense in the following year based on the approved Group financial statements. From the financial year 2017 onwards the variable remuneration was accrued on the basis of the expected Group result. Therefore, an additional one-time expense of thous. EUR 5,063 occurred in 2017 which would have been incurred already in 2016 if the currently chosen accounting method had been applied then.

The remuneration of the members of the Supervisory Board elected by the shareholders for the financial year 2018 amounted to thous. EUR 475 (2017: thous. EUR 475).

Concerning the remuneration of former members of the Management and Supervisory Boards, the provision on non-disclosure of such remuneration was applied by referring to section 266 figure 2 third sentence in conjunction with section 242 paragraph 4 of the Austrian Commercial Code.

23 — EXPENSES FOR THE GROUP AUDITOR

The 24th Ordinary Shareholders' Meeting on April 25, 2018 appointed Grant Thornton Unitreu GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft as the auditor of the consolidated and individual financial statements of Mayr-Melnhof Karton AG. Furthermore, they audited the individual financial statements of all material Austrian subsidiaries. With effect from February 26, 2019, the audit services of Grant Thornton Unitreu GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft have been split off by way of universal succession to Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft. In 2018, expenses for services rendered by Grant Thornton in Austria amounted to thous. EUR 283 (2017: thous. EUR 334), of which thous. EUR 281 (2017: thous. EUR 267) were related to auditing and other assurance services and thous. EUR 2 (2017: thous. EUR 67) were related to other services.

24 — RESEARCH AND DEVELOPMENT EXPENSES

Research and development costs are recognized as expense as incurred. Neither as of December 31, 2018 nor as of December 31, 2017 have any development costs been capitalized.

Research and development costs recognized as expenses in the income statement amounted to thous. EUR 2,986 in the financial year 2018 (2017: thous. EUR 2,980).

25 — FINANCIAL INCOME

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Interest from bank deposits	1,233	1,857
Other financial income	93	91
Total financial income	1,326	1,948

26 — FINANCIAL EXPENSES

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Interest expense related to financial liabilities	(4,790)	(4,775)
Other financial expenses	(1,288)	(1,410)
Total financial expenses	(6,078)	(6,185)

Other financial expenses comprise commitment fees for unused credit lines.

27 — OTHER FINANCIAL RESULT – NET

(in thousands of EUR)	Year ended Dec. 31, 2018	Year ended Dec. 31, 2017
Foreign currency exchange rate gains (losses) – net	6,568	(621)
Net interest cost from benefit obligation	(2,204)	(2,325)
Gains from disposal of other investments	1,143	79
Dividend income	422	618
Result from associated companies	(347)	(453)
Recycling of foreign currency translations ¹⁾	0	(2,604)
Other financial result – net	5,582	(5,306)

¹⁾ see note 5

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, 2018 nor as of December 31, 2017, 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, 2018	Year ended Dec. 31, 2017
Profit attributable to ordinary shareholders of the parent company (in thousands of EUR)	163,670	154,573
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)	8.18	7.73

As in the previous year, the number of shares issued as of December 31, 2018 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, 2018 and 2017.

Other contingent liabilities

At December 31, 2018, purchase obligations for fixed assets regarding planned capital expenditures maturing within one year amounted to thous. EUR 47,103 (December 31, 2017: thous. EUR 31,521).

30 — DISCLOSURES ON TRANSACTIONS WITH RELATED PARTIES

Raw materials for the production of cartonboard amounting to thous. EUR 7,677 were purchased from other related companies in 2018 (2017: thous. EUR 6,664). As of December 31, 2018, trade liabilities with other related companies amounted to thous. EUR 954 (December 31, 2017: thous. EUR 950).

In 2018, sales from transactions with associated companies amounted to thous. EUR 607 (2017: thous. EUR 452). As of December 31, 2018, trade receivables with associated companies amounted to thous. EUR 148 (December 31, 2017: thous. EUR 440), while trade liabilities with associated companies amounted to thous. EUR 160 (December 31, 2017: thous. EUR 9).

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, 2018	Dec. 31, 2017
Fixed deposits	19,680	47,732
Unrestricted bank deposits and cash	241,271	150,141
Other restricted bank deposits	31	37
Cash and cash equivalents	260,982	197,910

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 217,226 to thous. EUR 250,104. The profit increase and a lower build-up in working capital substantially contributed to this.

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 -154,385 to thous. EUR -119,034. This difference mainly results from lower payments for the acquisition of property, plant and equipment.

Cash flow from financing activities changed from thous. EUR -114,497 to thous. EUR -69,266 especially due to loan repayments in the previous year.

The following table shows a reconciliation of financial liabilities from cash and non-cash changes:

(in thousands of EUR)	Non-current interest-bearing financial liabilities	Current interest-bearing financial liabilities	Total
Balance at Jan. 1, 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

(in thousands of EUR)	Non-current interest-bearing financial liabilities	Current interest-bearing financial liabilities	Total
Balance at Jan. 1, 2017	211,997	48,903	260,900
Issuances of financial liabilities	938	8,976	9,914
Repayments of financial liabilities	(20,115)	(37,615)	(57,730)
Total cash changes	(19,177)	(28,639)	(47,816)
Effect of exchange rates	(39)	(779)	(818)
Other non-cash changes	(891)	1,093	202
Total non-cash changes	(930)	314	(616)
Balance at Dec. 31, 2017	191,890	20,578	212,468

32 — SIGNIFICANT SUBSEQUENT EVENTS

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 within a gravure printing process externally sourced fine paper to produce cigarette filter paper (tipping paper) and is a global market leader in this field. With eight production plants in seven countries and around 1,100 employees worldwide, the Group achieves sales of around EUR 230 million per year (according to the Austrian Commercial Code).

Through the acquisition, MM Packaging expands the existing production of cigarette packaging by the technologically related production of tipping paper. Based on technological similarities and 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 closing of the acquisition was effected on January 15, 2019. The cash-paid preliminary purchase price amounts to thous. EUR 270,091 and was financed by own funds and using available credit lines in an amount of thous. EUR 120,000. The calculation was derived from net financial liabilities and net working capital, both preliminarily determined according to the Austrian Commercial Code. The contract parties are bound to final settlement based on final net financial liabilities and final net working capital which could lead to changes of the purchase price.

The inclusion of the acquisition into the Group will be effected in the first quarter of 2019. The impact of the consolidation on the presentation of the financial situation and profitability of the Group will basically depend on the results of the purchase price allocation and the included fair values of the acquired assets and liabilities of the Tann-Group. The purchase price allocation has not been finalized yet, as the preparation and assessment of the underlying financial information is just in its initial phase. The fair value measurement focuses on property, plant and equipment, inventory and provisions as well as the identification of intangible assets; in this connection, the recognition of a customer relationship is probable from today's point of view. Based on the above mentioned synergies, the transaction is expected to result in the recognition of a goodwill. The transition to IFRS is currently in progress as the financial reporting had been prepared according to the Austrian Commercial Code until now. Due to this transition and the still ongoing process of purchase price allocation, we are from today's point of view not able to fulfill especially the quantitative requirements of IFRS 3 with sufficient certainty.

33 — TABLE OF AFFILIATED AND ASSOCIATED COMPANIES

2018					2017				
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, Vaduz (LIE)	EUR	50	100.00 %	FC ⁽¹⁾	CartPrint Insurance AG, Vaduz (LIE)	EUR	3,000	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⁾

2018					2017				
Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation	Company name	Currency	Nominal capital in thousand currency units	Shareholding in %	Type of consolidation
Trading companies & sales offices of MM Karton					Trading companies & sales offices of MM Karton				
Austria Cartón S.A., Barcelona (ESP)	EUR	60	75.00 %	FC ⁽¹⁾	Austria Cartón S.A., Barcelona (ESP)	EUR	60	75.00 %	FC ⁽¹⁾
-	-	-	-	-	Firgos (Malaysia) SDN BHD, Kuala Lumpur (MYS)	MYR	500	100.00 %	FC ⁽¹⁾
Keminer Remmers Spiehs Kartonhandels GmbH, Gernsbach (DEU)	EUR	1,280	100.00 %	FC ⁽¹⁾	Keminer Remmers Spiehs Kartonhandels GmbH, Gernsbach (DEU)	EUR	1,280	100.00 %	FC ⁽¹⁾
-	-	-	-	-	Mayr-Melnhof Belgium N.V., Sint-Katelijne-Waver (BEL)	EUR	62	100.00 %	FC ⁽¹⁾
Mayr-Melnhof Cartonboard UK Limited, Theale-Reading (GBR)	GBP	1,000	100.00 %	FC ⁽¹⁾	Mayr-Melnhof Cartonboard UK Limited, Reading-Berkshire (GBR)	GBP	1,000	100.00 %	FC ⁽¹⁾
Mayr-Melnhof France SARL, Paris (FRA)	EUR	8	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 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 Karton Polska Sp. z o.o., Poznan (POL)	PLN	50	100.00 %	FC ⁽¹⁾
-	-	-	-	-	Mayr-Melnhof Karton Schweiz GmbH, Worb (CHE)	CHF	20	100.00 %	FC ⁽¹⁾
Mayr-Melnhof Mediterra SARL, Tunis (TUN)	TND	80	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 Nederland B.V., Amstelveen (NLD)	EUR	91	100.00 %	FC ⁽¹⁾
Mayr-Melnhof & Wilfried Heinzl Tehran Co., Tehran (IRN)	IRR	100,000	36.00 %	NE ⁽²⁾	Mayr-Melnhof & Wilfried Heinzl 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 Guang Zhou Yue Ran Paper Co., Ltd., Guangzhou (CHN)	CNY	1,500	100.00 %	FC ⁽¹⁾
MM Karton Bulgaria EOOD, Sofia (BGR)	BGN	5	100.00 %	FC ⁽¹⁾	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 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 Karton Russia LLC, Moscow (RUS)	RUB	14,290	100.00 %	FC ⁽¹⁾
MM Kartonvertrieb GmbH, Neuss (DEU)	EUR	26	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⁾	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⁾	Varsity Packaging Limited, Reading-Berkshire (GBR)	GBP	300	100.00 %	FC ⁽¹⁾

CONSOLIDATED FINANCIAL STATEMENTS

2018					2017				
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., Amman (JOR)	JOD	3,500	86.94 %	FC ⁽¹⁾	Al-Ekbal Printing & Packaging Co., Amman (JOR)	JOD	3,500	86.94 %	FC ⁽¹⁾
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⁾
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	321,496,000	99.29 %	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⁾
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⁾

CONSOLIDATED FINANCIAL STATEMENTS

2018					2017				
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 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	75,000,000	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 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⁾
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⁾
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⁾
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⁾
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⁾	Public 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⁾
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⁾
Superpak Ambalaj sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	52,000	100.00 %	FC ¹⁾	Superpak Ambalaj sanayi ve ticaret anonim sirketi, Izmir (TUR)	TRY	52,000	100.00 %	FC ¹⁾
Ultimatec Engineering GmbH, Vienna (AUT)	EUR	35	60.00 %	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⁾

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 2018, 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)

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)
Andreas HEMMER (Employee Representative)
Gerhard NOVOTNY (Employee Representative)

Vienna, February 28, 2019

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m. p.

Franz Hiesinger m. p.

Franz Rappold 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 of its subsidiaries (the Group) comprising the consolidated balance sheet as of December 31, 2018, the 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.

Based on our audit the accompanying consolidated financial statements were prepared in accordance with the legal regulations and present fairly, in all material respects, the assets and the financial position of the Group as of December 31, 2018 and its financial performance for the year then ended in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and additional requirements of section 245 a of the Austrian Commercial Code.

Basis for opinion

We conducted our audit in accordance with the regulation (EU) no. 537/2014 (in the following "EU regulation") and Austrian Standards on Auditing. Those standards require that we comply with International Standards on Auditing (ISA). Our responsibilities under those regulations and standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are independent of the Group in accordance with the Austrian General 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.

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.

Recoverability of property, plant and equipment

The line item "Property, plant and equipment" in the consolidated financial statements of Mayr-Melnhof Karton Aktiengesellschaft includes tangible assets whose carrying amounts are, in case that there is an indication of impairment, reviewed by the management board (cf. Notes, section 6c). For this purpose, impairment tests are performed based on recoverable amount, which is determined as value in use or fair value less cost to sell. In order to perform the analyses, the Management Board has to make estimates about future earnings developments and to derive complex calculation parameters, which is why the results of the impairment test are subject to some uncertainties and estimation flexibility.

In the course of the audit, we have:

- assessed if there are any indications of an impairment or reversal of an impairment;
- compared the budgets on which the impairment test is based with the total budget approved by the Supervisory Board, validated the development of the significant parameters (sales, EBIT margin), and discussed with the Management Board their expectations of local business and market development;
- assessed the methodology used in the calculation models;
- reviewed if the Management Board's assumptions are in appropriate range in comparison to market and externally available data, such as interest rates, inflation, market growth;
- reviewed if the qualification of the experts and suitability of the valuation method as well as the applied assumptions and selected parameters are based on market conditions for the determination of the fair value in the valuation reports from external experts.

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

Management is responsible for the preparation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and additional requirements of section 245 a of the Austrian Commercial Code, for them to present a true and fair view of the assets, the financial position and the financial performance of the Group and for such internal controls as management determines are 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 in accordance with Austrian Standards on Auditing, which require the application of ISA, 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 in accordance with Austrian Standards on Auditing, which require the application of ISA, we exercise professional judgment and maintain professional scepticism throughout the audit.

Moreover the following principles apply:

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 risk 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. Future events or conditions may, however, 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 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.

Based on 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 of the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

Comments on the Management Report for the Group

Pursuant to Austrian Generally Accepted Accounting Principles, the Group management report is to be audited as to whether it is consistent with the consolidated financial statements and as to whether it was prepared in accordance with the applicable legal regulations.

Management is responsible for the preparation of the Group's management report in accordance with Austrian Generally Accepted Accounting Principles.

We conducted our audit in accordance with Austrian Standards on Auditing for the audit of the Group's management report.

Opinion

In our opinion, the management report for the group was prepared in accordance with the valid legal requirements and is consistent with the consolidated financial statements. The disclosures pursuant to section 243 a UGB (Austrian Commercial Code) are appropriate.

Statement

Based on the findings during the audit of the consolidated financial statements and due to the thus obtained understanding concerning the Group and its circumstances no material misstatements in the Group's management report 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 Group's management report, and the auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, to 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

Grant Thornton Unitreu GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft was elected as auditor by the Ordinary Shareholders' Meeting on April 25, 2018 and subsequently appointed by the Supervisory Board. With effect as of February 26, 2019, the audit services of Grant Thornton Unitreu GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft have been split off by way of universal succession to Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft. Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft and its legal predecessors have been auditors without cease since the appointment by the first general meeting on April 27, 1995.

We confirm that the audit opinion in the section "Report on the consolidated financial statements" is consistent with the additional report to the audit committee referred to in article 11 of the EU regulation.

We declare that no prohibited non-audit services (article 5 par. 1 of the EU regulation) were provided by us and that we remained independent of the audited company in conducting the audit.

Responsible Austrian Certified Public Accountant

The engagement partner on the audit resulting in this independent auditor's report is Christoph ZIMMEL, Austrian Certified Public Accountant.

Vienna, February 28, 2019

Grant Thornton Austria GmbH
Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

Christoph ZIMMEL m. p.

Christian PAJER m. p.

Austrian Certified Public Accountants

This report is a translation of the original German report which is solely valid.

Publication or sharing with third parties of the Group financial statements together with our auditor's opinion is only allowed if the financial statements and the management report are identical with the audited version. This audit opinion is only applicable to the German and complete financial statements with the management report. Section 281 paragraph 2 UGB (Austrian Commercial Code) applies to modified versions.

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, February 28, 2019

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

Franz Rappold m. p.
Member of the
Management Board

Development in the 4th Quarter 2018

QUARTERLY OVERVIEW

Mayr-Melnhof Group (IFRS, unaudited)

(consolidated, in millions of EUR)	1 st Quarter 2018	2 nd Quarter 2018	3 rd Quarter 2018	4 th Quarter 2018	4 th Quarter 2017	+/-
Sales	592.1	578.5	592.5	574.6	587.7	- 2.2 %
Operating profit	57.1	57.2	58.0	44.8	56.1	- 20.1 %
Operating margin (%)	9.6 %	9.9 %	9.8 %	7.8 %	9.5 %	
Profit before tax	55.6	56.2	57.2	48.9	53.6	- 8.8 %
Income tax expense	(13.9)	(14.2)	(14.5)	(11.1)	(11.9)	
Profit for the period	41.7	42.0	42.7	37.8	41.7	- 9.4 %
Net profit margin (%)	7.0 %	7.3 %	7.2 %	6.6 %	7.1 %	
Basic and diluted earnings per share (in EUR)	2.08	2.09	2.13	1.88	2.08	

After a solid development during the first quarters, demand for cartonboard packaging showed a noticeable weakening in the fourth quarter, especially due to a reduction in stocks along the supply chain.

MM Karton recorded, market- and production-related, a lower capacity utilization of 90 % after 99 % in the fourth quarter of the previous year. The operating margin of the division was at 6.3 % (4th quarter 2017: 7.3 %).

MM Packaging reached an operating margin of 8.4 % (4th quarter 2017: 10.5 %).

Consolidated sales at EUR 574.6 million were around 2.2 % lower than in the previous year's period (4th quarter 2017: EUR 587.7 million). While MM Karton was able to keep up sales due to better prices, MM Packaging faced a reduction.

The Group's operating profit totaled EUR 44.8 million (4th quarter 2017: EUR 56.1 million), resulting in an operating margin of 7.8 % (4th quarter 2017: 9.5 %).

Profit before tax was at EUR 48.9 million after EUR 53.6 million in the last quarter of 2017.

Profit for the period amounted to EUR 37.8 million (4th quarter 2017: EUR 41.7 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 deferred taxes.

Cash earnings margin

Cash earnings divided by sales.

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

Profit before tax excluding net interest income/expenses, the respective profit or loss attributable to non-controlling (minority) shareholders according to IAS 32 as well as 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.

Total equity to total assets

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 liabilities from finance lease less cash and cash equivalents as well as current and non-current securities.

In case the sum of cash and cash equivalents as well as securities 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)

Profit before tax, excluding net interest income/expenses and excluding the respective profit or loss attributable to non-controlling (minority) shareholders according to IAS 32, divided by the sum of average total equity, average current and non-current interest-bearing financial liabilities including liabilities from finance lease, 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 as well as current and non-current securities.

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 liabilities from finance lease.

Sheet equivalent

Production volume in sheets of offset printing and running meters of gravure and flexographic printing converted into a standardized unit.

Working capital

The sum of total current assets and non-current securities less total current liabilities (excluding revolving bank credits).

Group Key Indicators

	2014	2015	2016	2017	2018
Development of sales (in millions of EUR)					
Total sales	2,455.6	2,567.7	2,659.5	2,751.9	2,788.1
less intersegment sales between the divisions	(103.2)	(102.5)	(102.9)	(104.7)	(108.7)
less intersegment sales in the divisions	(265.0)	(283.7)	(283.9)	(310.4)	(341.7)
Consolidated sales	2,087.4	2,181.5	2,272.7	2,336.8	2,337.7
Earnings data (in millions of EUR)					
Net value added	564.8	601.6	650.8	659.2	670.5
EBITDA	270.6 ¹⁾	298.7	314.0	314.3	332.1
Operating profit	180.2	199.9	213.7	215.0	217.1
Profit for the year	131.6	142.1	153.4	155.0	164.2
Cash earnings	221.3 ³⁾	238.4	256.3	257.1	269.7
Depreciation/capital expenditures (in millions of EUR)					
Depreciation and amortization ¹⁾	93.9	99.6	99.1	99.7	107.3
Capital expenditures (CAPEX)	139.8	128.0	144.2	159.1	124.4
Employees	9,399	9,938	9,927	9,856	9,445
Profitability indicators					
Return on equity	11.9 %	12.7 %	12.8 %	12.0 %	12.1 %
Return on assets	7.9 %	8.3 %	8.4 %	8.3 %	8.5 %
Net profit margin	6.3 %	6.5 %	6.7 %	6.6 %	7.0 %
EBITDA margin	13.0 % ³⁾	13.7 %	13.8 %	13.5 %	14.2 %
Operating margin	8.6 %	9.2 %	9.4 %	9.2 %	9.3 %
Cash earnings margin	10.6 % ³⁾	10.9 %	11.3 %	11.0 %	11.5 %
Return on capital employed	15.5 %	16.1 %	15.9 %	15.1 %	15.5 %
Return on investment	10.5 %	10.9 %	11.0 %	10.9 %	11.0 %
Balance sheet indicators					
Total equity to total assets	61.7 %	60.2 %	63.5 %	65.5 %	67.0 %
Property, plant and equipment to total assets	39.0 %	40.0 %	40.0 %	42.7 %	41.3 %
Total equity and non-current liabilities to property, plant and equipment	2.0	2.0	2.0	1.9	2.0
Working capital (in millions of EUR)	614.6	615.7	710.5	644.3	698.8
Financial indicators (in millions of EUR)					
Net liquidity (+)/net debt (-)	58.3	- 35.0	- 7.2	- 11.8	49.4
Share performance indicators (in EUR)					
Market capitalization ²⁾ (in millions of EUR)	1,720	2,290	2,014	2,450	2,200
Basic and diluted earnings per share	6.54	7.08	7.67	7.73	8.18
Dividend per share	2.60	2.80 ⁴⁾	3.00	3.10	3.20⁵⁾

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 2018

FINANCIAL CALENDAR 2019

April 14, 2019	Record date "Ordinary Shareholders' Meeting"
April 24, 2019	25 th Ordinary Shareholders' Meeting – Vienna
April 30, 2019	Ex-dividend day
May 2, 2019	Record date "Dividends"
May 8, 2019	Dividend payment date
May 15, 2019	Results for the 1 st quarter of 2019
August 20, 2019	Results for the 1 st half-year of 2019
November 14, 2019	Results for the first three quarters of 2019

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 Grant Thornton Austria GmbH Wirtschaftsprüfungs- und Steuerberatungsgesellschaft, 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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