

Consolidated Non-financial Report

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Sustainability in the MM Group

Introduction

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

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

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

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

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

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

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

Business model

The production of cartonboard and folding cartons for consumer goods is the core business of the Mayr-Melnhof Group, which is managed in two divisions, MM Karton and MM Packaging. About 10,000 employees in the Group produce approximately 1.7 million tons of cartonboard per year and process approximately 785,000 tons of cartonboard and paper, generating annual sales of around EUR 2.5 billion. MM is present in 20 countries with 7 cartonboard mills¹ and 45 packaging sites and sells its products to around 100 countries worldwide, with Europe as main market.

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

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

 $^{^{\}mbox{\tiny 1}}$ In addition, MM Karton produces virgin fibers at the FollaCell site.

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

Impact of business activities on climate change

Cartonboard and cartonboard packaging have two specific advantages:

- They are based on wood, a renewable resource. Wood absorbs CO₂ during its growth phase.
- They store carbon and, through recycling, CO₂ remains bound and is not returned to the atmosphere.

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

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

Relevance of climate change for the business model

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

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

Strategy

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

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

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

Focus on core business

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

Market leadership through cost, technology and innovation leadership

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

Long-term orientation

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

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

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

Expansion

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

Responsible parties - organizational integration

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

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

PwC Wirtschaftsprüfung GmbH, Vienna, has performed an independent audit of the consolidated non-financial report with limited assurance. The respective report can be found on page 46.

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

Stakeholders

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

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

Stakeholders of the MM Group

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

Stakeholder dialog

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

Participation of stakeholders in net value added

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

Value added

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

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

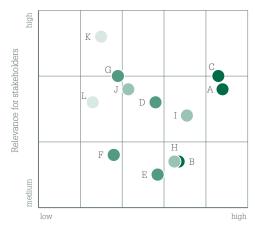
With 38.2% or EUR 288.5 million (2018: 38.4%; EUR 257.4 million), the major share of the net value added was again distributed to our employees. A similarly large proportion of 36.7% or EUR 277.4 million (2018: 37.1%; EUR 248.9 million) was paid to public authorities and social insurance. The shareholders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

Material topics

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

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

Materiality matrix



Impacts of MM's business activity on non-financial aspects

Material and product responsibility

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

Environmental management

- \boldsymbol{D} Energy consumption and emissions in cartonboard production
- \boldsymbol{E} Transport emissions
- \boldsymbol{F} Water consumption in cartonboard production
- G Waste in production

Employees

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

Society

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

Material and product responsibility

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

Environmental management

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

Employees

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

Society

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

Alignment with Sustainable Development Goals (SDGs)

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

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

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

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

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

Sustainability topics

MATERIAL AND PRODUCT RESPONSIBILITY

1 — RENEWABLE RAW MATERIALS AND RECYCLABILITY

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

Because cartonboard is

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

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

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

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

a — Risks and impacts

Both divisions of the MM Group process a predominant proportion of renewable materials, i.e. fibers. Non-renewable raw materials only play a subordinate role. This is also reflected in the volumes used, which are presented on page 42. While MM Karton, as a leading manufacturer of coated recycled fiber-based cartonboard, processes almost three quarters of recycled fibers in its cartonboard mills, the use of print substrates (cartonboard and paper) made from recycled and virgin fibers is balanced at MM Packaging.

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

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

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

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

b — Management approach

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

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

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

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

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

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

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

MM Group part of the 4evergreen Alliance

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

Measures and development

Objective

Reduce the consumption of natural resources;

Use recycled and renewable fibers; Conserve resources through product recyclability

Developments and measures 2019

Examine the topic of plastics reduction and substitution with a focus on market and technology, closely involving customers and experts

MM Karton

Reduction in the use of cellulose by expanding the in-house production of groundwood pulp

Increase in recovered fiber quality through improved quality control of the input and optimized fiber preparation

Optimization of chemical consumption through process modifications, such

Reduction in the thickness of plastic film used in transport packaging through new packaging lines

MM Packaging

A large number of projects to reduce rejects of cartonboard and paper substrates through process optimization

Projects to reduce or substitute the use of plastics

The focus in chemicals management was placed on optimizing consumption

For shipping packaging, reduction in packaging material and increased use of pallets made from recycled wood

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

¹⁾ excluding MM FollaCell AS

²⁾ including packaging materials

³⁾ excluding rejects 4) groundwood pulp equivalent

2 — ECOLOGICAL CRITERIA IN PROCUREMENT

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

a — Risks and impacts

The potential risk of encroachment on local communities and ecosystems, e.g., through illegal logging, is counteracted by chain-of-custody certification according to FSC^{\oplus} and $PEFC^{TM}$ standards for all carton-board mills.

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

b — Management approach

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

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

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

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

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

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

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

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

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

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

c — Measures and development

Objective	Developments and measures 2019	
Contribute to improving forest	MM Karton	
management and protecting sus- tainable habitats and biodiversity	Re-certification of individual mills in accordance with FSC $^{\!\otimes}$ und PEFC $^{\!\top\!\mathrm{M}}$	
tallable liabitats and blociversity	MM Packaging	
	Supplier FSC®- und PEFCTM qualification, re-certification of individual mills in accordance with FSC® und PEFCTM	

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

¹⁾ excluding MM FollaCell AS

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.

Risks and impacts

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

h 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

²⁾ groundwood pulp equivalent ³⁾ including FSC® Controlled Wood

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

ISO 9001

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

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

BRC Packaging and FSSC 22000

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

Certified hygiene management in accordance with EN 15593

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

ECMA GMP

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

21

— Measures and development

Objective	Developments and measures 2019	
Ensure and improve product safety; Health protection	Regular internal and external analysis of state-of-the-art cartonboard products and continuous evaluation of compliance with relevant rules and regulations	
	Staff training in product safety and foo	d contact
	мм к	arton
	Preparation for ISO 22000 certification	for food safety management systems
	Product innovations and development use of a fluorine-free barrier	ts, e.g., barrier cartonboard products,
	EN 15593 certification (hygiene management in the production aging), ISEGA (hygiene management)	
	MM Pac	ckaging
	Improvements of existing food safety of GMP, ISO 22000) and the fulfillment of	certifications (BRC, FSSC 22000, ECMA special customer requirements
	Optimization of legal compliance mon	itoring
	MM Karton	MM Packaging
Share of cartonboard types for which the impact on consumer health and safety is assessed	100 %	
ISO 9001-certified production sites ¹⁾	7 of 7	45 of 45
Production sites certified in the areas of food safety and hygiene ¹⁾	7 of 7	27 of 45

¹⁾ excluding MM FollaCell AS

ENVIRONMENTAL MANAGEMENT

1 — ENERGY CONSUMPTION AND EMISSIONS IN PRODUCTION

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

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

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

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

a — Risks and impacts

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

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

b — Management approach

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

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

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

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

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

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

- ISO 14001
- EMAS
- ISO 50001

ISO 14001

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

EMAS

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

ISO 50001

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

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

Greenhouse gas emissions (CO₂ certificates)

The EU Emissions Trading Scheme (EU ETS) is the centered European climate protection instrument for reducing greenhouse gas emissions in the EU and a number of non-EU countries, such as Norway. It includes the energy industry as well as selected energy-intensive industrial sectors, such as the paper and cartonboard industry, hence also the seven MM cartonboard mills within the EU and the FollaCell fiber mill. The scheme is based on the "cap & trade" principle according to which an upper limit on permitted emissions is set in order to issue a limited number of emission allowances (CO₂ certificates). These can be freely traded on the market if required. The allocation of free CO₂ certificates is without charge under certain conditions in order to avoid "carbon leakage", i.e. the transfer of emissions to countries with less stringent climate protection regulations. A benchmark procedure is used to ensure that selected sectors subject to international competition receive some of their certificates free of charge. The free allocation is based on benchmarks that reward the most efficient facilities in every sector. As the EU's political goal is to further reduce CO₂ emissions, free allocations are also gradually decreasing, creating incentives for reducing emissions and adopting energy-efficient technologies.

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

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

c — Measures and development

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

	MM Karton MM Packaging			
ISO 14001- or EMAS-certified production sites ¹⁾	3 of 7 30 of 45			
ISO 50001-certified production sites ¹⁾	4 of 7 6 of 45			
Energy consumption ²⁾	3.3 TWh 0.4 TWh			
Specific energy consumption ³⁾	1.8 MWh/t	0.5 MWh/t		
Direct CO ₂ emissions ^{2) 4)}	0.5 million t CO2e	0.03 million t CO₂e		
Specific direct CO ₂ emissions ⁴⁾	0.3 t CO₂e/t	0.04 t CO ₂ e/t		

^{*}a th MM Karton: emissions reported according to Section 9 of the Emissions Certificates Act 2011

2 — TRANSPORT EMISSIONS

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

a — Risks and impacts

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

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

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

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

b — Management approach

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

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

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

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

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

c — Measures and development

	measures 2019
Development and implementation of mult space optimization	imodal logistics concepts, transport
MM Kart	ton
Mills optimize transport services, in particular through improvements in the use of truck capacities, reduction of big bag shipments on trucks for chemicals by switching to suspension deliveries, efficiency increases in internal logistics and an optional increase in rail transport.	
MM Packa	ging
Improved truck utilization, optimization of internal transport, increase of rail transport wherever possible	
ts to MMK customers	0.1 million t
	MM Kart Mills optimize transport services, in partiuse of truck capacities, reduction of big by cals by switching to suspension deliveries gistics and an optional increase in rail transport services. MM Packa Improved truck utilization, optimization of

 $^{^{\}mbox{\tiny 1)}} including MM FollaCell AS$

3 — WATER CONSUMPTION IN PRODUCTION

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

a — Risks and impacts

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

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

b — Management approach

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

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

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

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

For information regarding certifications in environmental management, please refer to page 23.

c — Measures and development

Objective	Developments and measures 2019			
Reduction in water consumption	мм к	arton		
	Technological modernization and expansion of industrial wastewater treatment plants for future requirements, introduction of group-wide benchmarking for water treatment			
	MM Packaging			
	Projects to reduce fresh water consumption and corresponding training			
	Increased focus on differentiation between process and non-process water			
	Rainwater for fire-extinguishing tanks			
	MM Karton ¹⁾	MM Packaging		
Water consumption	21 million m³	0.7 million m ³		

¹⁾ including MM FollaCell AS

4 — WASTE IN PRODUCTION

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

a — Risks and impacts

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

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

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

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

b — Management approach

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

For information regarding certifications in environmental management, please refer to page 23.

c — Measures and development

Objective	Developments and measures 2019		
Reduction in hazardous and non-	MM Karton		
hazardous waste	Improvements in fiber recovery, process changes, and optimization of fiber supply sources		
	Investment in thermal utilization of wood residues in Kolicevo		
	MM Packaging		
	Improvements in the production process based on new technology		
	Optimization of separate collection		
	Minimization of hazardous waste (e.g., solvent and paint residues) through avoidance or substitution		
	MM Karton ¹⁾	MM Packaging	
Non-hazardous waste	0.2 million t	0.1 million t	
Hazardous waste	1 thous. t	3 thous. t	
including MM FollaCell AS			

1) including MM FollaCell AS

EMPLOYEES

1 — EMPLOYEE EDUCATION AND TRAINING

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

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

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

a — Risks and impacts

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

b — Management approach

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

Active personnel marketing

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

Systematic support from the start

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

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

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

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

MM-Academy - Fit for the Future

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

"Methusalems" program

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

$c \ \ -\!\!\!\!-\!\!\!\!-$ Measures and development

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

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

2 — EMPLOYEE SAFETY AND HEALTH

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

a — Risks and impacts

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

b — Management approach

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

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

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

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

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

c — Measures and development

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

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

¹⁾ including MM FollaCell AS

3 — WORKING CONDITIONS/ENVIRONMENT

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

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

Employees of the Group

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

a — Risks and impacts

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

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

b — Management approach

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

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

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

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

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

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

The majority of employees in the Group is covered by defined contribution plans as part of statutory pension schemes. Apart from statutory pension schemes, the Group has also made performance- and contribution-based pension commitments to certain employees on the basis of individual commitments and company agreements. In addition, there are performance- and contribution-based severance obligations and obligations as part of statutory pre-retirement schemes at individual locations.

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

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

c — Measures and development

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

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

SOCIETY

COMPLIANCE

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

1 — COMPLIANCE WITH LAWS, STANDARDS AND RULES OF CONDUCT

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

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

a — Risks and impacts

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

b — Management approach

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

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

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

c — Measures and development

Objective	Developments and measures 2019		
Require and promote behavior that meets compliance requirements	Mandatory compliance with the MM Code of Conduct by suppliers throug new terms and conditions of purchase		
	An internal information campaign was conducted at the beginning of 201 ensure consistent compliance with the Code of Conduct within the Grou		
		MM Group	
No significant fines or sanctions for non- the social and business field	compliance with legislation and regulations in	✓	

2 — ANTI-CORRUPTION, ANTI-TRUST COMPLIANCE

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

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

a — Risks and impacts

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

b — Management approach

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

Accepting gifts, granting benefits (according to the Code of Conduct)

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

Guideline: relationship with competitors, customers, associations (according to the Code of Conduct)

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

Guideline: Anti-trust law

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

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

c — Measures and development

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

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

Context of non-financial topics with business development

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

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

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

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

Costs relating to non-financial matters result from personnel, energy requirements, water consumption, or waste generation of the MM Group. Future cost drivers might arise in particular from regulatory changes, including an increase in the costs of 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, current business development of the Mayr-Melnhof Group in 2019 was characterized by a high level of continuity. Added to this was the integration of the Tann Group. The impacts of non-financial topics and the context of related key performance indicators (KPIs) with the annual financial statements showed no significant changes or noticeable issues. In an overall consideration of non-financial and financial aspects, we regard the measures undertaken as part of sustainability management to be effective in terms of minimizing risk and optimizing opportunity in the Group.

Non-financial indicators

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

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

Ecological criteria in procurement	2019	2018	2017
Virgin fibers in cartonboard production ^{1) 2)}			
- from FSC®-certified sources	17 %	14 %	17 %
- from PEFCTM-certified sources	36 %	38 %	36 %
- from controlled sources ³⁾	47 %	48 %	47 %

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

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

¹⁾ excluding MM FollaCell AS

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Environmental management	2019	2018	2017
ISO 14001- or EMAS-certified production sites ¹⁾	33 of 52		
ISO 50001-certified production sites ¹⁾	10 of 52		
Energy consumption			
Energy consumption in cartonboard production ²⁾	3.3 TWh	3.4 TWh	3.4 TWh
Specific energy consumption ^{2) 3)}	1.8 MWh/t	1.9 MWh/t	1.9 MWh/t
Energy consumption in packaging production	0.4 TWh	0.3 TWh	0.3 TWh
Specific energy consumption ³⁾	0.5 MWh/t	0.4 MWh/t	0.4 MWh/t
Direct emissions and transport-related emissions			
Direct CO ₂ emissions in cartonboard production ^{2) 4)}	0.5 million t CO ₂ e	0.5 million t CO ₂ e	0.5 million t CO2e
Specific direct CO ₂ emissions ^{2(3) 4)}	0.3 t CO ₂ e/t	0.3 t CO ₂ e/t	0.3 t CO ₂ e/t
Direct CO ₂ emissions in packaging production	0.03 million t CO ₂ e	0.03 million t CO ₂ e	
Specific direct CO ₂ emissions ³⁾	0.04 t CO ₂ e/t	0.04 t CO ₂ e/t	
Indirect CO ₂ emissions from shipments to MMK customers ²⁾	0.1 million t CO ₂ e		
Water consumption			
Water consumption in cartonboard production ²⁾	21 million m ³	22 million m ³	24 million m ³
Water consumption in packaging production	0.7 million m ³	0.3 million m ³	0.3 million m ³
Waste			
Non-hazardous waste in cartonboard production ²⁾	0.2 million t	0.0 :11: +	0.4illi+
Non-hazardous waste in packaging production	0.1 million t	0.3 million t	0.4 million t
Hazardous waste in cartonboard production ²⁾	1 thous. t	4 thous. t	4.1
Hazardous waste in packaging production	3 thous. t		4 thous. t

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

Employees ¹⁾	2019	2018	2017
Employee education and training			
MM-Academy courses	149		
Participants in MM-Academy courses	1,447	3,853	1,067
MM-Academy training hours	12,494		
Employee safety and health			
ISO 45001- or OHSAS 18001-certified production sites ²⁾	16 of 52		
Occupational accidents resulting in death	0	0	0
Working conditions/environment			
Cases of child labor	0	0	0
Cases of forced labor	0	0	0
Production countries¹¹ with Fundamental Rights Index ≤ 0.4 (Rule of Law)	3 of 21	2 of 18	2 of 18

¹⁾ including MM FollaCell AS ²⁾ excluding MM FollaCell AS

Material local employment effects	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2017
Number of employees¹¹ per country			
Germany	2,715	2,760	2,854
Austria	1,846	1,498	1,499
France	916	918	937
Poland	687	736	811
Russia	609	495	492
Turkey	450	575	612
Slovenia	389	392	389
Chile	239	270	336
Iran	239	245	263
Great Britain	236	220	232
Ukraine	224	226	229
China	212	0	0
Colombia	204	196	224
Romania	202	214	218
Netherlands	202	200	207
Spain	143	146	163
Vietnam	123	135	146
Philippines	120	0	0
Jordan	115	127	139
Norway	69	65	61
Canada	44	0	0
Others	30	27	44
Total	10,014	9,445	9,856

¹⁾ full employment equivalent

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

¹⁾ including MM FollaCell AS

About the consolidated non-financial report

This consolidated non-financial report 2019 covers the activities and key figures of the Mayr-Melnhof Group according to the reporting scope and reporting period of the Annual Report 2019. PwC Wirtschaftsprüfung GmbH, Vienna, conducted an independent audit of the consolidated non-financial report with a limited scope of assurance. The corresponding report is stated on page 46.

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

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

Contact:

Stephan Sweerts-Sporck

Phone: +43 1 501 36 91180 Fax: +43 1 501 36 91195

e-mail: investor.relations@mm-karton.com Website: https://www.mayr-melnhof.com

Vienna, March 16, 2020

The Management Board

Wilhelm Hörmanseder m. p.

Andreas Blaschke m.p.

Franz Hiesinger m.p.

Independent limited assurance report

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

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

Management's responsibility

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

Auditor's responsibility

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

We performed our engagement in accordance with the professional standards applicable in Austria with regard to KFS/PG 13 "Other assurance engagements", KFS/PE28 "Selected issues in connection with the assurance of non-financial statements and non-financial reports pursuant to Sections 243 b and 267 a of the Austrian Commercial Code as well as sustainability reports" and the International Standards on Assurance Engagements (ISAE) 3000 (Revised) "Assurance engagements other than audits or reviews of historical financial information". These standards require that we comply with our ethical requirements, including rules on independence, and that we plan and perform our procedures by considering the principle of materiality to be able to express a limited assurance conclusion based on the assurance obtained.

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

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

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

- Critical assessment of the Group's analysis of materiality considering the concerns of external stakeholders by interviewing the responsible employees and inspecting relevant documents
- Obtaining an overview of the policies pursued by the Group, including due diligence processes implemented as well as the processes used to ensure an accurate presentation in the non-financial report by interviewing the Company's management and inspecting internal guidelines, procedural instructions and management systems in connection with non-financial matters/disclosures
- Obtaining an understanding of reporting processes by interviewing the relevant employees and inspecting selected documentation
- Evaluating the reported disclosures by performing analytical procedures regarding non-financial performance indicators, interviewing relevant employees and inspecting selected documentations
- Examining the non-financial report regarding its completeness in accordance with the requirements of Section 267 a of the Austrian Commercial Code
- Performing additional procedures on site if required as a consequence of the risk assessment and the results of analytical procedures
- Evaluating the overall presentation of the disclosures and non-financial information

The following is not part of our engagement:

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

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

Conclusion

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

Vienna, March 16, 2020

PwC Wirtschaftsprüfung GmbH

Aslan Milla m. p. Austrian Certified Public Accountant

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