

UPM Steyrermühl

ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY **2018**



UPM Steyrermühl

Founded in 1868, the factory has been a crucial factor in the industrialisation of the present-day community of Laakirchen in Upper Austria over the decades. Up to 295,000 tonnes of high-quality printing papers are produced each year on one of the largest and most modern paper machines.

Our three-stage biological treatment plant cleans the mill's effluents as well as the local wastewater from the Laakirchen pollution control association. Combined heat and power plants ensure that primary energy is used efficiently. UPM Steyrermühl and Laakirchen Papier AG (formerly SCA Graphik Laakirchen) have a subsidiary (EEVG – Entsorgungs- und Energieverwertungsgesellschaft) which operates a fluidised bed boiler to recover energy from residual materials. This Environmental Statement relates to the paper mill, including on-site energy generation.

In addition, the neighbouring sawmill is a wholly owned subsidiary, producing up to 400,000 m³ of timber per year. Sawmill residues are used as a raw material for papermaking. The group's own wood sourcing operation supplies both the paper mill and the sawmill with wood from sustainably managed forests.

The Laakirchen pollution control association has set up a state-of-the-art landfill site, which is operated in accordance with the requirements of the new landfill regulation.



Production capacity	295,000 tonnes per year
Personnel	285
Products	Standard and improved newsprint: UPM News UPM EcoBasic UPM Brite UPM Prime
Certifications	EMAS – EU Eco-Management and Audit Scheme ISO 14001 – Environmental Management System ISO 9001 – Quality Management System ISO 50001 – Energy Management System ISO 45001 – Health and Safety Management System PEFC™ Chain of Custody – Programme for the Endorsement of Forest Certification FSC® Chain of Custody – Forest Stewardship Council
	All certificates can be found in UPM's Certificate Finder (available at www.upmpaper.com/responsibility)
Ecolabels	Austrian ecolabel (UZ 02) for UPM News "Blue Angel" ecolabel (RAL-UZ 72) for UPM News and UPM EcoBasic EU ecolabel for UPM News and UPM EcoBasic



UPM Steyrermühl Environmental and Societal Responsibility 2018 is a supplement to the Corporate Environmental and Societal Responsibility Statement of UPM's pulp and paper mills (available at www.upm.com) and provides mill-specific environmental and societal performance data and trends for the year 2018. The annually updated mill supplements and the UPM Corporate Environmental and Societal Responsibility Statement together form the joint EMAS Statement of UPM Corporation. The next UPM Corporate Environmental and Societal Responsibility Statement and also this supplement will be published in 2020.

We deliver renewable and responsible solutions and innovate for a future beyond fossils across six business areas: UPM Biorefining, UPM Energy, UPM Raflatoc, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. We employ around 19,000 people worldwide and our annual sales are approximately EUR 10.5 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. www.upm.com



FSC-certified products can be found at: www.fsc.org



PEFC-certified products can be found at: www.pefc.org



EU Ecolabel : FI/011/001



www.blauer-engel.de/uz72



Depending on customer requirements, we produce products that meet the criteria of these eco-labels.

Review of year 2018

There is a long tradition of environmental protection in Steyrermühl. When new production plants were built at the beginning of the 1980s, major investments were also made in environmental protection — in particular in effluent treatment, energy supply and waste management. Regular fish stock analyses have repeatedly shown that no influence on fish stocks has been detected as a result of effluent discharge. There is also comparable evidence regarding the environmental influences of air emissions on the surrounding forest ecosystem. We have been working with a quality management system since 1994, which has been developed over the years into an integrated management system for quality, environment, fire protection and occupational health and safety. Energy management was first integrated into the system in 2015. Our active mill fire brigade forms the basis for effective risk and emergency management. Staffed by specially trained volunteer employees, it is able to work closely with the emergency services from the surrounding communities to provide an effective response in the event of an emergency. More than 30 drills have been held during the past year, as well as a crisis management training course. The wood sourcing operation gained chain of custody and PEFC certification as far back as 2001. Our products continuously meet the stringent requirements of European ecolabels. Most of our paper products have been FSC certified since 2008.

Our environmental priorities for 2018 are summarised below:

(See Performance Report)

We were once again able to comply with the applicable environmental regulations in the last year and have proactively made changes using our environmental management system. Following the decommissioning of paper machine 3 in March 2017, there were changes in water consumption and effluent volumes. However, the treatment plant operated stably and no limit values were exceeded. We narrowly failed to meet water conservation targets. The use of fly ash as a stabilising agent in earth works, under the brand name Cinerit, decreased last year due to reduced construction activity. The overall recycling rate of fly ash was 93%, including

landfill removals. The remainder was temporarily stored in landfill during 2018.

Through the ongoing evaluation of our processes and implementation of appropriate measures, we will continue to improve

The classification of ash as a product is the most important basis for retaining the high recovery rate in future. Maintaining a high recovery rate will continue to pose a major challenge in the future. We will continue to focus on further reducing the specific fresh water consumption and effluent discharge in production. Our objectives for the coming years will focus on measures to save energy and reduce the loss of chemicals and fibres across the production areas.



Dipl. Ing. (HTL) Ernst Spitzbart
Managing Director

Christian Polzinger, MSc
Environmental Officer

Responsibility figures 2018

Waste



0 kg

of waste was sent to permanent landfill. Approximately one third of the ash volume is used as a high-quality construction product for earth stabilisation, while around two thirds are used as a raw material in the cement and construction materials industry.

Water



Specific load of organic matter in cleaned wastewater (t COD per tonne of paper) reduced by 25% in the period 2009–2018
Effluent volume reduced by

36%

in the period 2009–2018

Air



Specific nitrogen oxide emissions from power plants reduced by

66%

in the period 2009–2018

Specific fossil carbon dioxide emissions from power plants reduced by

78%

in the period 2009–2018



Energy

Specific energy use (kWh per tonne of paper) of biogenic fuels increased by

25%

in the period 2009–2018

Safety



The number of injuries with lost time was reduced by

80%

(8 in 2009, 1 in 2018)

Supply chain



95%

of raw materials are qualified in accordance with the UPM Suppliers and Third Party Code (without wood)



Certified fibre

In 2018, the percentage of wood chips from sustainably managed forests (PEFC + FSC) was

76.6%

Taxes



A total of

€ 13.5 m

paid in income tax, employer contributions, social security contributions, local tax and land tax

Recycled fibre



46%

Proportion of recycled fibres in paper produced by us in 2018.

Production and raw materials

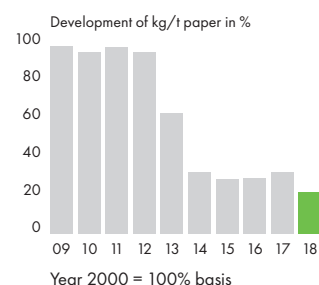
As a result of the decommissioning of paper machine 3 in 2017, production fell by 29,889 tonnes compared to the previous year. Recovered paper consumption was down by 43,790 tonnes.

Air

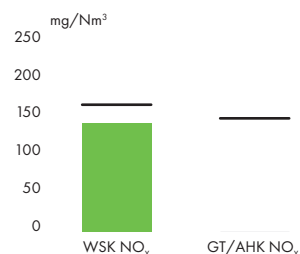


The gas turbine with downstream heat recovery boiler was again only put into service in 2018 when requested by APG (Austrian Power Grid). As a result, the gas turbine was in operation for a total of 137 hours. The electrical energy required for this was purchased. As a result, natural gas consumption as well as site-specific CO₂ and NO_x emissions were stable at a very low level.

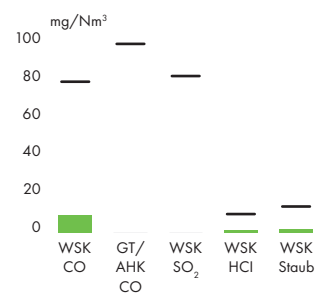
Carbon dioxide (fossil), CO₂



Air emissions from energy generation



Air emissions from energy generation

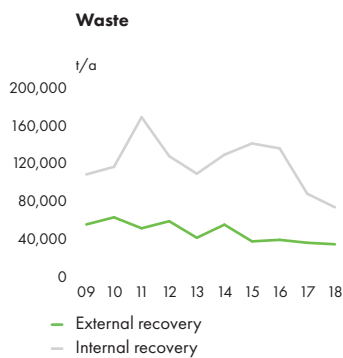


FBB = fluidised bed boiler
 GT = gas turbine
 WHB = waste heat boiler

Waste



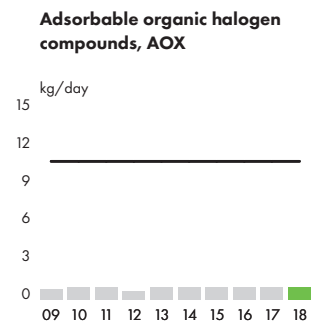
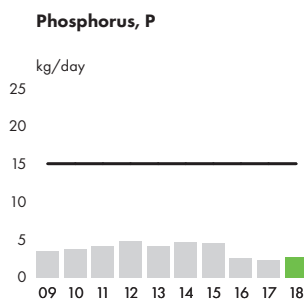
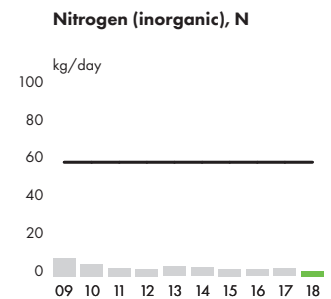
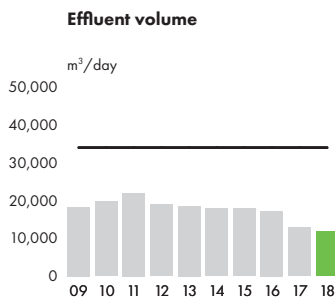
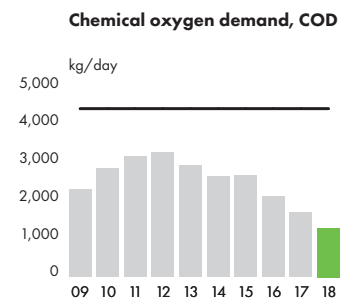
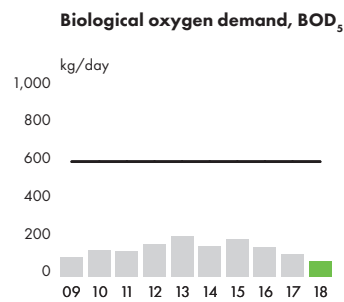
The use of fly ash from our fluidised bed boiler as a stabilising agent was lower than the previous year. The recovery rate of ash (including material temporarily deposited in landfill) was 93%.



Water



Compared to the previous year, the total effluent volume decreased by around 396,839 m³. The specific COD load per tonne of paper discharged from the treatment plant decreased by 17%.



— Limit value

Social responsibility

Work safety

"Safety First" is our ultimate principle. Occupational health and safety is extremely important and is a key part of management duties. The continuous improvement of workplace health and safety for employees is an ever-present issue and requires each individual employee to take personal responsibility.

Our occupational health and safety management system is certified according to OHSAS 18001.

After a very successful year in 2017 without a reportable accident, in January 2018 an LTA was reported in the RCF plant after "506" days. An employee sustained a finger injury when making adjustments. This was the only accident in 2018. The rest of the year passed without reportable accident, however, there were some minor incidents that did not require time off work.

As a result, our accident rate at the Steyermühl site (paper mill) in 2018 was 2.6 accidents per one million working hours and the TRIF rate (injuries with lost time, incl. medical treatments and modified duties, without absence from work) was 7.8.

In 2018, we focussed on accident prevention when working at heights and on wearing PPE to protect against falls. As part of the Safety Day held in 2018, the entire plant received training in how to use fall protection equipment. We see this as an important step towards achieving our ultimate goal of "zero serious accidents". We are also focussing our efforts on regular safety inspections, on the identification and assessment of hazardous work and on permits to work (PTW).

In 2019, we plan to place increased emphasis on prevention leadership, the safety of our contractual partners and the migration to ISO 45001.

Preventative healthcare

We spend a large part of our life at work and often come across working conditions that have a positive or negative impact on health.

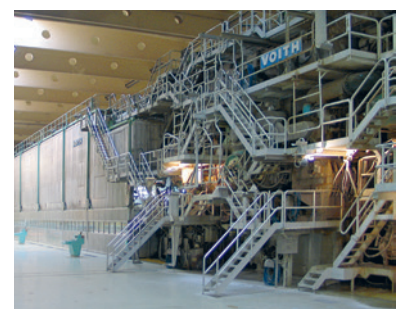
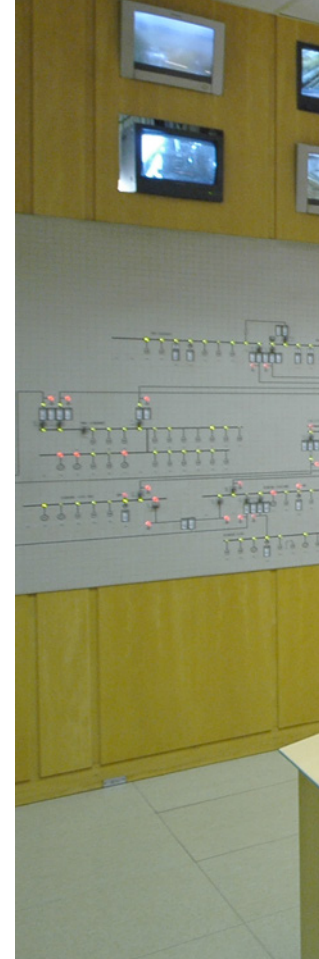
Healthy, capable and motivated employees are a prerequisite for the success and competitiveness of our plants. That is why we want to create conditions that enhance the health of our employees, increase the workforce's awareness of health and thus also improve, encourage and maintain work satisfaction and motivation.

As a result, we established a company health management programme which provided a wide variety of services, and many of UPM Steyermühl's employees took advantage of the opportunities on offer. In 2018, the "Evaluation of physical load" project was completed with external support. The measures resulting from the project are currently being implemented.

Engaging with communities

UPM Steyermühl is constantly making contributions to the Papermakers Museum with integrated cultural and events centre. With well over 100 events per year, this centre is one of the busiest event centres in the region. In partnership with the museum operator, which offers special services for schools (a series of workshops such as making paper by hand or environmental protection), a large number of plant tours take place both for pupils and for other interested groups. The site is also home to an art school, where people with disabilities can take part in interactive and creative educational activities.

UPM Steyermühl works with the local citizens' initiative, LUI, and regularly holds meetings with the Laakirchen Citizens' Council. Developed over 25 years, this cooperation has become a fixed institution and has established itself as a highly successful confidence-boost-





ing measure for projects and subsequent plant permits.

Cooperation with schools and training

Paper technicians, electrical engineers, mechanical engineers, chemical laboratory technicians and waste disposal and recycling specialists are all currently trained at the Steyrmühl site. The training workshop celebrated its 80th anniversary in 2018, and in 2016 it

was awarded the National Coat of Arms "State Certified Training Establishment" by the Austrian Federal Ministry of Education, Science and Research. The workshop maintains a close cooperation with the surrounding technical schools and new secondary schools. This partnership involves educational events for school classes, which are held in the training workshop and the Papermakers Museum, as well as taster sessions at Steyrmühl for apprenticeship applicants.



Environmental parametres 2018

The figures related to production as well as raw material and energy consumption are published as aggregated figures on group level in the UPM Corporate Environmental and Societal Responsibility Statement.

Production capacity	Paper	Up to 295,000 t
Raw materials and additives	Recovered paper Process chemicals Consumables	See UPM Corporate Environmental and Societal Responsibility Statement for more information
Energy	Renewable fuels and fossil fuels External power supply	76% renewable fuels See UPM Corporate Environmental and Societal Responsibility Statement for more information
Air emissions	Carbon dioxide, CO ₂ (fossil) Nitrogen oxide, NO _x Sulphur dioxide, SO ₂ Particulates Carbon monoxide, CO	35,161 t 135.8 t 0.161 t 1.5 t 8.1 t
Water use	Process water and cooling water	5,033,759 m ³
Water emissions	Effluent volume COD BOD ₅ Phosphorus Nitrogen (inorganic) AOX	4,293,359 m ³ 473 t 29.3 t 0.98 t 1.04 t 0.4 t
Waste *	Non-hazardous waste and by-products – By-products – Ash (Cinerit) – Recycling waste – Ash (fly ash and bottom ash) – Others – Intermediate storage – Ash (fly ash and bottom ash) – Waste to landfill Hazardous waste	10,531 t 25,391 t 566 t 8,737 t 0 t 59 t
Plant area		26 hectares, of which 90% are developed or sealed and 10% are near-natural

* Weight when dry

COD: chemical oxygen demand

BOD₅: biological oxygen demand

AOX: adsorbable organic halogens



Performance against targets in 2018

TARGET	MEASURES FOR 2018	STATUS
1 Health and safety <ul style="list-style-type: none"> Reduction of the number of workplace accidents. Target: "zero accidents and max. 7 TRIF" (per one million working hours) Reduction of absences due to illness to <3.5% 	<ul style="list-style-type: none"> Consistent implementation of measures resulting from audits, internal standards and group guidelines Consistent implementation of measures relating to "absence management" 	7.8 (Target narrowly missed) 3.49% (Target reached)
2 Waste <ul style="list-style-type: none"> Maintaining a 100% ash recovery rate Reduction of reel pin waste (50% of the ensuing quantity) 	<ul style="list-style-type: none"> Maintaining the use of ash as a stabilising agent in earth works, (dam building, road bases), cooperation with potential partners, ongoing classification in line with Section 6 AWG (Abfallwirtschaftsgesetz – Austrian Waste Management Act) Force internal combustion in the fluidised bed boiler 	93% incl. removal from landfill (target not reached) 18% of the ensuing quantity was burned (target not achieved)
3 Water Reduction of fresh water consumption in production to < 14 m ³ /t	Optimisation of water management due to decommissioning of PM3 (new fibre/clear filtrate concept)	14.3 m ³ /t (Target narrowly missed)
4 Water/air emissions Prevention of Clean Run deviations in category 3–5	Further optimise startup and shutdown plans for downtimes, launch and use of the One Safety tool	0 (Target reached)

Targets for 2019

TARGET	MEASURES FOR 2019	RESPONSIBLE
1 Health and safety <ul style="list-style-type: none"> Reduction of the number of workplace accidents. Target: "zero accidents in 2019", maximum of seven TRIF (per one million working hours) Reduction of absences due to illness to <3.5% 	<ul style="list-style-type: none"> Consistent implementation of measures resulting from audits, internal standards and group guidelines Consistent implementation of measures relating to "absence management" 	All All
2 Waste <ul style="list-style-type: none"> Maintaining a 100% ash recovery rate Reduction of reel pin waste (50% of the ensuing quantity) 	<ul style="list-style-type: none"> Maintaining the use of ash as a stabilising agent in earth works, (dam building, road bases), cooperation with potential partners, working with Standards Committees, etc. Continue to force internal combustion in the fluidised bed boiler 	Environment/Energy Environment/Energy
3 Water Reduction of fresh water consumption in production to < 14 m ³ /t	Optimisation of water management due to decommissioning of PM3 (new fibre/clear filtrate concept)	Production
4 Water/air emissions – Prevent Clean Run deviations in category 3–5	Further optimise startup and shutdown plans for downtimes. No serious fires, increased use of the One Safety tool	Production



Validation statement

This supplementary report for the calendar year 2018 for UPM-Kymmene Austria GmbH, Fabrikplatz 1, 4662 Steyrermühl, Austria has been verified within the scope of the EMAS Regulation by

Quality Austria Trainings-, Zertifizierungs- und Begutachtungs GmbH
 Zelinkagasse 10/3, 1010 Vienna, Austria
 AT-V-0004

The Managing Environmental Verifiers at Quality Austria Trainings-, Zertifizierungs- und Begutachtungs GmbH hereby declare that the environmental policy, environmental program, environmental management system, environmental audit and environmental audit procedures of the organisation comply with Regulation (EC) No. 1221/2009 of the European Parliament and of the Council on 25 November 2009 (EMAS Regulation), as amended by Commission Regulation (EU) 2017/1505, and the relevant contents of the supplementary report are valid in accordance with Annex IV, section B, letters a–h within the scope of the group registration with Reg. No. FI-000058.

The next complete environmental statement will be published in the second quarter of 2022, with data until the end of 2021.

Updates are supplied annually as supplementary sheets.

Steyrermühl, 01/04/2019

Markus Haderer

Dipl.-Ing. Markus HADERER
 Managing Environmental Verifier

Georg Buchtele

Dr. Georg BUCHELA
 Managing Environmental Verifier



We reduce the world's reliance on fossil-based materials by developing renewable and responsible products and solutions in all our businesses. **UPM Biofore – Beyond fossils.**



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UPM-Kymmene Austria GmbH

Fabrikplatz 1
4662 Laakirchen
Austria
Tel.: +43 (0)7613 8900-0
Fax: +43 (0)7613 2440

If you need more information,
please do not hesitate to contact us:
Dipl. Ing. (FH) Ernst Spitzbart
General Manager
Tel.: +43 (0)7613 8900-0

Christian Polzinger, MSc
Environmental Protection
Tel.: +43 (0)7613 8900-509

Email: info.steyrer@muh@upm.com