

UPM Steyrermühl

ENVIRONMENTAL AND SOCIETAL RESPONSIBILITY 2019



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. The Steyrermühl site is currently home to five business units, each of which reflects an element of the site's history:

- At the heart of the site is UPM Kymmene Austria GmbH (UKA). It operates the pulp plants and paper machine and is the founder and either owner or co-owner of all the other companies located at the site. This environmental statement relates exclusively to UKA and the plants that it operates (Entsorgungs- und Energieverwertungsgesellschaft [EEVG], treatment plant). This report does not affect any of the other business units or associations named below.
- Steyrermühl Sägewerksgesellschaft m.b.H. Nfg KG manufactures saw-cut products and by-products of saw cutting. It is one of the paper mill's key wood chip suppliers and is a 100% subsidiary of UKA. In addition to housing wood processing operations, the sawmill is also home to the administrative operations for wood purchasing. This setup ensures that the paper mill is reliably furnished with raw material – wood chip – and that EEVG has a ready supply of wood fuel.
- EEVG Entsorgungs- und Energieverwertungs Ges.m.b.H. provides the required energy in the form of electricity and steam. It uses a fluidised bed boiler to recover not only various waste materials, but also the wood fibres that are rejected during fibre and paper production.
- SLR Steyrermühl Logistik & Recycling GmbH is responsible for supplying UKA with recovered paper and is also a key partner when it comes to ensuring that all logistical processes at the site function as efficiently as possible.
- In addition to the business units detailed above, the site also houses a treatment plant that treats the operational and municipal wastewater before it is expelled into the River Traun. The treatment plant is operated by UKA and owned by Reinhaltungsverband Großraum Laakirchen (RHV: Stadtgemeinde Laakirchen, Heinzel Papier – Laakirchen Papier AG and UKA).



Production capacity	295,000 tonnes per year
Personnel	Approx. 290 including apprentices
Products	Standard and improved newsprint: UPM News UPM EcoBasic UPM Brite UPM Prime
Certificates	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 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 from UPM's Certificate Finder (available at www.upm.com/responsibility)
Environmental labels	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 2019 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 2019. 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 Updated UPM Corporate Environmental Statement and also this supplement will be published in 2021.

UPM offers renewable and responsible solutions and innovate for a future beyond fossils across six business areas: UPM Biorefining, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. As the industry leader in responsibility we are committed to the UN Business Ambition for 1.5°C and the science-based targets to mitigate climate change. We employ 18,700 people worldwide and our annual sales are approximately EUR 10.2 billion. Our shares are listed on Nasdaq Helsinki Ltd. UPM Biofore – Beyond fossils. www.upm.com



The mark of responsible forestry

For more information about FSC certification visit fsc.org



For more information about PEFC certification visit 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 the year 2019



Environmental protection has long been a feature of the Steyermühl ethos and the topic is the subject of great focus. The past year has been no exception and we have once again engaged in a number of activities in this area, with a view to ensuring that the environmental standards we have achieved can be maintained or even improved upon. Thanks to our existing environmental management system, we have once again been able to ensure compliance with all applicable environmental regulations during the course of the year. As such, there were no environmentally pertinent events requiring classification as a Clean Run 3–5 incident based on UPM regulations. What this means is that, in 2019 and based on our assessment, activities at our site had no negative impact on the immission situation in relation to biodiversity and other relevant environmental factors.

Focal points of the past year

Action on Legionella bacteria was a topic that demanded our time and attention over the past year. Following incidents in paper mills elsewhere in Europe, UKA took the decision to conduct large-scale legionella analyses during the course of the year. Proper maintenance and care of the water systems is essential when it comes to controlling these bacteria. Regular sampling by independent laboratories means that we can check the systems and be satisfied that there is no danger to local residents or employees.

In the previous year, it was not possible to achieve the goal of tangibly reducing specific water consumption. In fact, there was actually a slight upwards trend in water consumption. Despite this situation, we remain committed to sustainably reducing water consumption by 2030.

During the course of comprehensive evaluations of occupational health and safety in relation to the formation and emission of potentially hazardous gases, it was established that H₂S can, under certain conditions, cause odour problems in the surrounding local area. We are working hard to address this issue. Certain new measures will be introduced in the future to help limit the formation of H₂S.

The works fire brigade, which is based at the site, conducted 30 drills again during the course of the year, as well as crisis management. The aim was to ensure a robust response in the event of acute environmental incidents.

Two electric forklifts purchased in 2019 are being used as replacements for the diesel forklifts that were previously in use in the finished goods warehouse. The resulting reduction in CO₂, nitrogen oxides and energy consumption will be beneficial to the environment.

Our goals for the next few years are to reduce specific water consumption, improve on the current situation with the H₂S issue and make further improvements to the environmental management system.



Ernst Spitzbart, Dipl.-HTL-Ing.
General Manager

Christian Polzinger,
MSc Environmental Officer

Responsibility figures 2019

Non-recyclable

Waste



0 kg

We work hard to ensure that any waste produced can be put to good use.

Water



Specific load of organic matter in cleaned wastewater (t COD per tonne of paper) has been reduced by 25% in the period 2010–2019. Between 2010 and 2019, the wastewater volume has been reduced by

38%

Air



Between 2010 and 2019, specific nitrogen oxide emissions from the power plants have been reduced by

61%

Between 2010 and 2019, specific fossil fuel carbon dioxide emissions from power plants have been reduced by

74%



Energy

Between 2010 and 2019, specific energy use (kWh per tonne of paper) of biogenic fuels has increased by

105%

Safety



The number of accidents resulting in lost time has been reduced by

80%

1,571

safety inspections and observations were conducted by employees in 2019.



Supply Chain



95%

of raw materials spend qualified against UPM Supplier and Third Party Code (wood suppliers not included)

Taxes



We have paid a total of

EUR 14 million

in income tax, employer contributions, social security contributions, local tax and real estate tax.

Certified fibre

from wood chips

In 2019, the proportion of wood chips for our virgin fibre that was sourced from certified sustainable forestry (PEFC + FSC) was

70%

Recycled fibre



made from recovered paper in 2019 was

28%

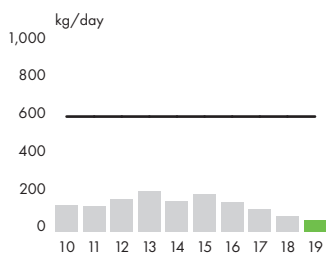
of the recycled fibres in the paper.

Water

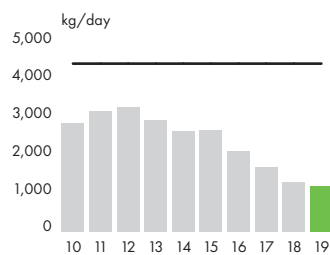


We did not succeed in reducing water consumption by the planned amount. However, we were able to acquire new information that can help us to achieve our goal of further reducing water consumption.

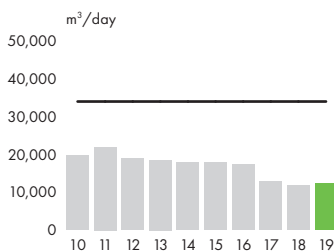
Biological oxygen demand, BOD,



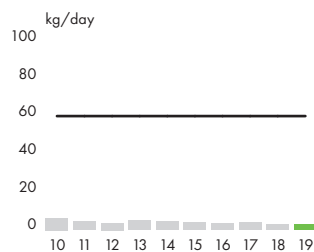
Chemical oxygen demand, COD



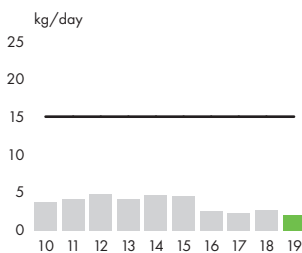
Process wastewater volume



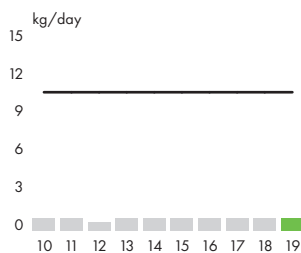
Nitrogen (inorganic), N



Phosphorus, P



Adsorbable organic halogen compounds, AOX



— Limit value

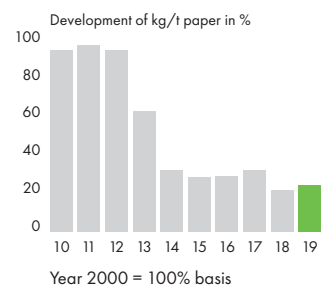
Air



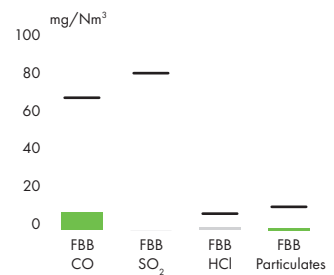
The energy generation facilities at the site are state of the art. NO_x emissions have been significantly reduced over the past year as a result of the successful installation and commissioning of a selective non-catalytic reduction (SNCR) system.

The fossil CO₂ volume was kept at almost the same level as in the previous year.

Fossil carbon dioxide, CO₂



Air emissions from energy generation



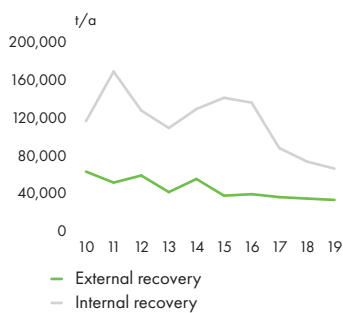
FBB = fluidised bed boiler

Waste



The use of fly ash from our fluidised bed boiler as a stabilising agent was higher than in the previous year. The recovery rate of ash (including material temporarily deposited in landfill) was 91%.

Volume of recovered waste materials in 2019 (UKA and EEVG)



Production and raw materials

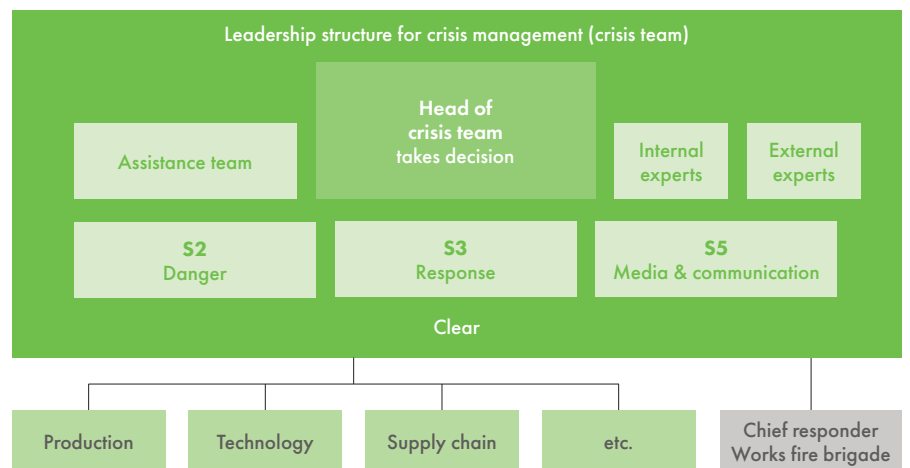
During the past year we have continued to optimise synergies with the sawmill operated at the site. The wood chips that are a by-product of wood cutting are

used as a raw material for fibre production. This cascades the use of wood, a valuable raw material, with material use upstream of thermal use.

The crisis team

There is a crisis team in place at Steyrmühl to ensure that the site is able to respond effectively in times of crisis. The team is made up of representatives

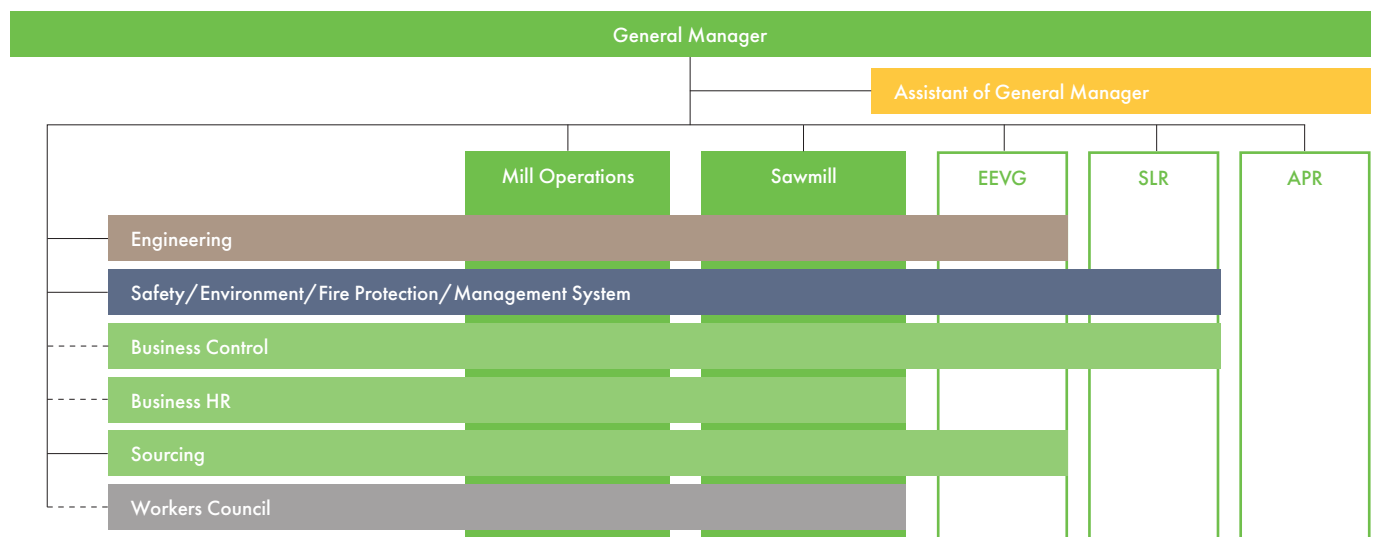
from all areas and across the entire business structure. This ensures that the company is still in a position to make decisions even in exceptional circumstances.



Main organigram

The organigram below shows the current business structure of the entire Steyrmühl site. Various functions and departments have a cross-company

hierarchy that supersedes the parallel unit hierarchy at the site (paper mill, sawmill, EEVG and SLR).



Societal responsibility

Occupational health and 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 occupational health and safety for employees is an ever-present issue and requires each individual employee to take personal responsibility.

Our Health and Safety Management System is certified according to ISO 45001.

Due to an accident that resulted in lost time, in 2019 we were unable to extend our record achievement of 506 accident-free days. The accident occurred during maintenance work on the PM4; an employee sustained an eye injury while changing a motor.

The combined accident rate at UKA is 2.7 accidents resulting in lost time per one million working hours (LTA rate). If you include accidents that led to medical treatment or modified activities, the rate for the past year is 5.4 accidents per one million working hours.

In 2019, we continued to build on past success in relation to health and safety. We achieved our ultimate goal, which was not to have any serious or fatal accidents. We were also able to keep the TRIF rate below the target of 7, achieving a rate of 5.4. In 2019, we continued to work on various focus areas from the previous year as well as tackling the following key issues:

- Improving contractor safety
- ISO 45001 certification
- Making safety goggles compulsory
- Comprehensive evaluation of the hazard potential of gases, in particular H₂S, following serious or fatal accidents in paper mills elsewhere in the world.
- Expansion of the existing activity evaluations to include area-specific evaluations.

The key accident prevention focus areas for 2020 are: LoTo — de-energising; continuation of the area-specific evaluations; continuation of the work on contractor safety; digitalisation of training; and hygiene and health.

Preventative healthcare

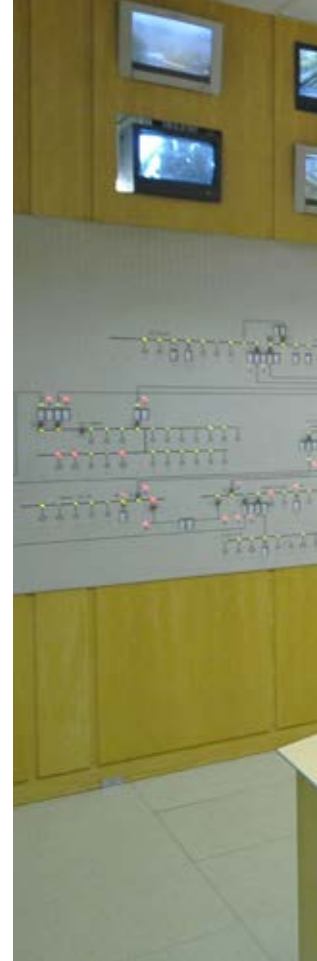
We spend a significant proportion of our life at work. The working conditions that we experience can have a positive or negative impact on our health.

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.

Engaging with communities

UKA is constantly making contributions to the Papermakers Museum with its 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.

The Steyermühl site works with the local citizens’ initiative, LUI, and regularly holds meetings with the Laakirchen Citizens’ Council. Developed over 25 years, this collaboration has become a fixed institution and has established itself as a highly successful confidence-boosting measure for projects and subsequent plant permits.





Collaboration 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 Steyermühl site. The training workshop celebrated its 80th anniversary in 2018. The Austrian Ministry of Education, Science and Research awarded us the National Coat of Arms "State-Certified Training Establishment". The workshop maintains a close collaboration 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 Steyermühl for apprenticeship applicants.



Environmental parameters

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.

		2017	2018	2019
Production capacity (UKA)	Paper	up to 295,000 t	up to 295,000 t	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 (EEVG)	Renewable fuels	62%	76%	79%
	Fossil fuels External power supply	See UPM Corporate Environmental and Societal Responsibility Statement for more information		
Emissions to air (EEVG)	Carbon dioxide, CO ₂ (fossil)	57,097 t	35,161 t	36,125 t
	Nitrogen oxide, NO _x	140.0 t	135.8 t	123.9 t
	Sulphur dioxide, SO ₂	0.1 t	0.161 t	0.0 t
	Particulates	0.6 t	1.5 t	1.1 t
	Carbon monoxide, CO	11.1 t	8.1 t	10.0 t
Water intake (UKA and EEVG)	Process water and cooling water	5,291,176 m ³	5,033,759 m ³	5,386,667 m ³
Discharges to water (site overall)¹⁾	Effluent volume	4,690,198 m ³	4,293,359 m ³	4,492,620 m ³
	COD	626 t	473 t	436 t
	BOD ₅	43.7 t	29.3 t	21.4 t
	Phosphorus	0.8 t	0.98 t	0.75 t
	Nitrogen (inorganic)	1.5 t	1.04 t	1.07 t
	AOX	0.4 t	0.4 t	0.4 t
Waste (UKA and EEVG)²⁾	Non-hazardous waste and by-products	³⁾		
	– By-products			
	– Ash (Cinerit)		10,531 t	14,740 t
	– Recycling waste			
	– Ash (fly ash and bottom ash)		25,391 t	22,186 t
	– Others		566 t	426 t
	– Intermediate storage			
	– Ash (fly ash and bottom ash)		8,737 t	6,462 t
	– Waste to landfill		0 t	0 t
	Hazardous waste		59 t	49.4 t
Size of mill area (UKA)	Total mill area	26 ha	26 ha	26 ha
	Sealed area	23.4 ha	23.4 ha	23.4 ha
	Near-natural area	2.6 ha	2.6 ha	2.6 ha

¹⁾ The additional wastewater volume of the sawmill and SLR is not recorded separately because it only amounts to smaller quantities of domestic wastewater.

²⁾ Weight when dry

³⁾ Reporting of waste data was changed in 2018.

COD: chemical oxygen demand

BOD₅: biological oxygen demand

AOX: adsorbable organic halogens



Performance against targets in 2019

TARGET	MEASURES FOR 2019	STATUS
1 Health and safety – Reduction of accidents at work to zero; or a maximum TRIF of 7 (per one million working hours) – Reduction of absences due to illness to <3.5%	– Consistent implementation of measures arising from audits, internal standards and group guidelines – Consistent implementation of measures relating to “absence management”	Interim goal of max. TRIF of 7 achieved. Target of 3.78% not achieved.
2 Waste – Maintaining a 100% ash recovery rate – Recovery of internal waste	– 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	91% including removal from landfill (target not achieved) 18% of the ensuing quantity was burnt (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)	17.87 m ³ /t Target not achieved.
4 Water/air emissions Prevention of Clean Run deviations in category 3–5	Further optimise startup and shutdown plans for downtimes; launch and use the One Safety tool	0 (Target achieved)

Targets for 2020

TARGET	MEASURES FOR 2020	RESPONSIBLE
1 Health and safety – Reduction of accidents at work: TRIF of 6 (accidents per one million working hours) – Proactive reporting: at least two documented safety observations per employee	– Consistent implementation of measures arising from audits, internal standards and group guidelines – Consistent improvement of the safety culture at the site	All All
2 Waste Safeguarding of the ash recovery rate; expansion of the Cinerit market	Maintaining the use of ash as a stabilising agent in earth works, (dam building, road bases), cooperation with potential partners or working standards committees	Environment/Energy
3 Water Reduction of fresh water consumption in production to < 14 m ³ /t	Use of working groups to determine potential for improvement	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 2019 for UPM-Kymmene Austria GmbH, Fabrikplatz 1, 4662 Steyermühl, 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 programme, 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 full 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.

Steyermühl 22/5/2020


 Markus HADERER, Dipl.-Ing.
 Managing Environmental Verifier


 Dr Georg BUCHTELA
 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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