



TRANSFORMING TOGETHER

ANNUAL REPORT 2023





Together with stakeholders, we create a future beyond fossils.

UPM'S CORPORATE RESPONSIBILITY REPORTING IN ACCORDANCE WITH GRI STANDARDS AND AA 1000

UPM has reported in accordance with the Global Reporting Initiative's (GRI) Standards for the period 1 January 2023 to 31 December 2023.

Our GRI index document shows where the disclosures of material topics and general disclosures are addressed in the Annual Report, on UPM's webpage or in the GRI index document itself. It also includes information on omissions, additional explanations, and disclosures on the management approach. The document is available on the UPM webpage www.upm.com/responsibility.

The English version of the corporate responsibility information for 2023 has been assured by an independent third party, PricewaterhouseCoopers Oy (see the Independent Assurance Report on pages



118–119) and identified in the GRI content index. Congruence between the English and Finnish version has been checked.

UPM is also committed to the principles of inclusivity, materiality, responsiveness, and impact as defined in the AA 1000 AccountAbility Principles Standard (2018).

The EU's Corporate Sustainability Reporting Directive (CSRD) will significantly widen the requirements for sustainability reporting from 2024 onwards. To better prepare ourselves for the future assurance processes, the assurance for our fossil CO₂ emissions (Scope 1, Scope 2 and Scope 3's maritime logistics) has already been changed from limited to reasonable assurance.

CONTENTS

FUTURE BEYOND FOSSILS



4	REVIEW BY THE PRESIDENT AND CEO	6
	THIS IS UPM	8
	WHAT THE WORLD NEEDS	10
	HOW WE MAKE A POSITIVE IMPACT	12
	KEY FIGURES 2023	14
	2023 HIGHLIGHTS AND RECOGNITIONS	16
	CREATING SHAREHOLDER VALUE	18
	BIOFORE STRATEGY	20
	ACCELERATING GROWTH	22
	UPM PASO DE LOS TOROS	24
	ENSURING PERFORMANCE	26
	INNOVATING FOR THE FUTURE	28
	VALUE FROM RESPONSIBILITY	30
	2030 RESPONSIBILITY TARGETS	32
	RISKS AND OPPORTUNITIES	34

BUSINESSES



36	UPM FIBRES - UPM PULP	38
	UPM FIBRES - UPM TIMBER	40
	UPM ENERGY	42
	UPM RAFLATAC	44
	UPM SPECIALTY PAPERS	46
	UPM COMMUNICATION PAPERS	48
	UPM PLYWOOD	50
	UPM BIOREFINING - UPM BIOFUELS	52
	UPM BIOREFINING - UPM BIOCHEMICALS	54
	UPM BIOREFINING - UPM BIOMEDICALS	56
	UPM BIOREFINING - UPM BIOCOSMOSITES	57

RESPONSIBILITY



58	ACTIVE DIALOGUE WITH STAKEHOLDERS	60
	ENGAGING EMPLOYEES	64
	DIVERSE AND INCLUSIVE WORKING CULTURE	68
	SAFETY FIRST	70
	ADVANCING HUMAN RIGHTS ACROSS OUR BUSINESSES	72
	COMMITTED TO COMPLIANCE	74
	ENSURING A RESPONSIBLE SUPPLY CHAIN	78
	CONTRIBUTING TO SOCIETY THROUGH TAXES	80
	CLIMATE-POSITIVE FORESTRY	82
	ENHANCING BIODIVERSITY	84
	COMMITTED TO CLIMATE ACTIONS	86
	TOWARDS FOSSIL-FREE ENERGY	88
	RESPONSIBLE WATER MANAGEMENT	92
	ADVANCING A CIRCULAR BIOECONOMY	94
	SUSTAINABLE PRODUCT LIFECYCLE	98
	OUR SOCIETAL AND ENVIRONMENTAL IMPACTS	100

GOVERNANCE



102	GROWTH STRATEGY CONTINUED	104
	REMUNERATION	111
	BOARD OF DIRECTORS	114
	GROUP EXECUTIVE TEAM	116
	ASSURANCE REPORT ON RESPONSIBILITY	118

ACCOUNTS FOR 2023



120	REPORT OF THE BOARD OF DIRECTORS	122
	FINANCIAL STATEMENTS	163
	AUDITOR'S REPORT	237
	OTHER FINANCIAL INFORMATION	241

About this report
This annual report provides a comprehensive overview of our performance in 2023. All material information has been integrated into this one, third-party assured entirety.

The reports online
PDF version for download on www.upm.com, UPM Corporate Governance Statement 2023, UPM Remuneration Report 2023, Accounts for 2023 in XBRL format, UPM GRI Content Index 2023, SASB content index 2023, UPM material balance 2023, UPM carbon inventory 2023, Interactive Analyst tool for financial figures and responsibility data. More about our responsibility agenda on www.upm.com/responsibility.

FUTURE BEYOND FOSSILS

UPM IN 2023

- Review by the President and CEO..... 6
- This is UPM.....8
- What the world needs..... 10
- How we make a positive impact..... 12
- Key figures..... 14
- Highlights and recognitions..... 16
- Creating shareholder value..... 18

DIRECTION FOR THE FUTURE

- Biofore strategy.....20
- Accelerating growth..... 22
- UPM Paso de los Toros.....24
- Ensuring performance.....26
- Innovating for the future.....28
- Value from responsibility.....30
- 2030 responsibility targets..... 32
- Risks and opportunities.....34



WHAT TRANSFORMING MEANS

We source our raw materials from sustainably managed forests and transform them into renewable products that help our customers meet their sustainability goals.

www.upm.com



We have accelerated growth with significant investments, two of which were completed in 2023 and are set to deliver in 2024.

A SOLID BASIS FOR GROWTH

UPM had a solid year in 2023 despite an exceptionally challenging operating environment. We completed two significant investments that will create long-term value for our stakeholders.

The year 2023 was marked by strong geopolitical uncertainty and exceptional economic cycles. For UPM, the year was twofold. During the first half of the year, we experienced a particularly sharp downturn, especially in European markets. Unprecedented destocking significantly affected market deliveries and was combined with falling pulp and energy prices. As the year progressed, there were signs of a gradual recovery in many product markets.

Our sales decreased by 11% and comparable EBIT was down 52% on the previous year's record levels. However, our performance was solid in the challenging operating environment with comparable EBIT of EUR 1,013 million and an EBIT margin of 9.7%. We succeeded well in margin management and took decisive action to reduce variable and fixed costs and to adjust our capacity to the low demand. Cash flow was at record levels and our financial position remained strong. We are well positioned to take advantage of further market improvements.

UPM's Board of Directors proposes a dividend of EUR 1.50 (1.50) per share for 2023, reflecting UPM's strong financial position and the Board's confidence in the company's future success.

Investments set to deliver

UPM has a clear strategy and we are aiming for growth. Global megatrends support demand for many of our products, and both our customers and consumers want to make sustainable choices. We have accelerated growth through significant investments, two of which were completed in 2023 and are set to deliver in 2024.

The largest investment project in the company's history was completed in Uruguay, increasing our pulp production capacity by more than 50% to around 5.8 million tonnes per year. Once production is fully optimised, UPM Paso de los Toros mill will have a cash cost per tonne of pulp delivered of around 280 US dollars, making it one of the most competitive pulp mills in the world.

Furthermore, the Olkiluoto 3 nuclear power plant unit was commissioned in 2023, increasing UPM Energy's CO₂-free electricity production by almost 50%. The investment also has a societal impact by improving Finland's energy self-sufficiency and providing CO₂-free energy for society's needs.

UPM's biochemical refinery project in Leuna, Germany is progressing at full speed. The biorefinery is unique as it is the world's first refinery to produce wood-based biochemicals. Numerous new partnerships demonstrate the demand for its products. In addition, a detailed commercial and basic engineering phase of the potential Rotterdam biorefinery continues.

Responsibility at the core of our operations

UPM's purpose is to create a future beyond fossils. We offer our customers renewable and recyclable materials and low-emission energy. We also innovate new solutions and invest in sustainable growth.

Responsibility is at the core of our strategy and operations. We have ambitious, science-based targets and a strong track record of concrete action to both mitigate climate change and enhance biodiversity.

We source our raw materials from sustainably managed forests and process them into renewable products that help our customers meet their sustainability targets.

Creating shareholder value

Although there are still many uncertainties in the operating environment, we expect UPM's full-year 2024 results to be up from 2023. In the near term, our focus will be on performance, delivery of our investments, preparing for the future growth and building on our values.

2023 showed that our operating model is solid and that we can perform well even in exceptionally challenging circumstances. For building this strong foundation, I would like to thank my predecessor, Jussi Pesonen, who has had a long, very distinguished and successful career at the helm of UPM. Under his leadership, the company has undergone a bold and determined transformation and its shareholder value has increased significantly. The results of years of systematic work have benefited all our stakeholders and society as a whole.

I have taken up the role of CEO at the beginning of 2024 with both enthusiasm and determination. UPM is an excellent company that I am honoured to lead, and I thank the Board of Directors for the trust they have placed in me. I would also like to thank UPM's employees, customers, shareholders and other stakeholders for their valued cooperation, which has put us in an excellent position to continue our success. The world needs responsible solutions and we have the ability to deliver them. Together, we create a future beyond fossils!

Massimo Reynaudo
President and CEO

THIS IS UPM

UPM is a biomaterials growth company. We provide renewable alternatives for fossil-based materials in everyday use. Our products enable our customers and consumers to make more sustainable choices. We invest in sustainable growth and innovate for a future beyond fossils. Responsibility is at the core of everything we do.

OUR BUSINESS AREAS

UPM FIBRES

UPM Fibres consists of our pulp and timber businesses. UPM Pulp offers a versatile range of pulp grades suitable for various end uses such as tissue, specialty papers, packaging papers, graphic papers and board. UPM Timber offers certified sawn timber for the joinery, packaging, furniture, planing and construction end-use segments.

UPM ENERGY

UPM Energy generates CO₂-free electricity in our own power plants and those that we co-own. Operations include trading in physical electricity and its derivatives. As Finland's second largest electricity producer, UPM Energy is actively exploring the opportunities created by the energy transformation, such as the hydrogen economy.

UPM RAFLATAC

UPM Raflatac offers high-quality self-adhesive paper and film products including label materials, graphics solutions and removable self-adhesive products.

UPM SPECIALTY PAPERS

UPM Specialty Papers offers specialty packaging materials for flexible packaging, labelling and industrial release liners. We also offer office and graphic papers in the Asia-Pacific region.

UPM COMMUNICATION PAPERS

UPM Communication Papers offers an extensive product range of graphic papers for advertising and publishing, as well as home and office use.

UPM PLYWOOD

UPM Plywood offers high-quality WISA® plywood and veneer products for construction, vehicle flooring, LNG shipbuilding, parquet manufacturing and other industrial applications.

OTHER OPERATIONS

UPM BIOREFINING – UPM BIOFUELS

UPM Biofuels produces wood-based renewable diesel for all diesel engines and renewable naphtha that can be used as a biocomponent for gasoline or for replacing fossil raw materials in the petrochemical industry.

UPM BIOREFINING – UPM BIOCHEMICALS

UPM Biochemicals offers wood-based renewable biochemicals to replace fossil-based raw materials in various applications such as textiles, PET bottles, packaging, cosmetics, pharmaceuticals, detergents, rubbers and resins.

UPM BIOREFINING – UPM BIOMEDICALS

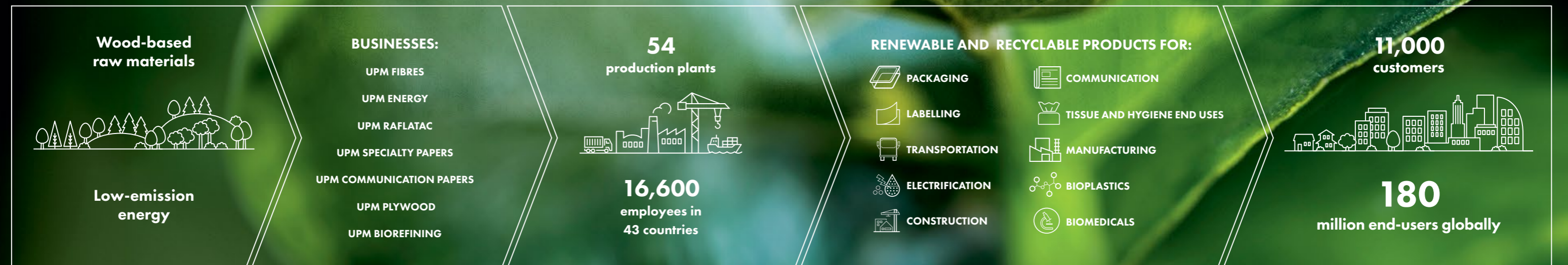
UPM Biomedicals develops and supplies wood-based biomedical products for wound care, cell therapy and 3D bioprinting. The main ingredient of our high-quality products is nanocellulose, extracted from birch.

UPM BIOREFINING – UPM BIOCOSMOS

UPM Biocomposites offers composite decking materials based on both recycled consumer and industrial waste. The product range also includes composite materials made from renewable fibres and polymers to replace fossil-based plastics.

UPM FOREST

UPM Forest secures competitive wood and biomass for UPM businesses and manages UPM-owned and privately owned forests in Northern Europe. UPM also offers forestry services to forest owners and forest investors.



WHAT THE WORLD NEEDS

With higher living standards and an ageing population, a growing number of urban, middle-class people are consuming more over a longer period of time. At the same time, the world is still highly dependent on fossil raw materials and energy sources that cause climate change. Consumers, businesses and regulators alike are seeking solutions that allow a more sustainable, modern way of life. Our offering meets these challenges and opportunities today and also in the future.

WHY IS A LOW-CARBON ECONOMY NEEDED?

The world's population is now more than three times larger than it was in the mid-twentieth century. As populations, economies and standards of living grow, so does the cumulative level of greenhouse gas emissions. Mitigating global warming requires the rapid transition to a low-carbon economy.

- The global population is estimated to surpass 10 billion by 2060.
- Today, more than half of the world's population lives in urban areas. By 2050, more people are expected to migrate from rural areas to cities, especially in Asia.



INNOVATIVE PRODUCTS FOR A BETTER FUTURE

Customers and consumers need alternatives to fossil-based products to make sustainable choices. Societies need a wide range of solutions to switch to renewable raw materials and energy and reduce reliance on the fossil-based economy.

OUR SOLUTION: REPLACING FOSSIL MATERIALS

- Materials for various consumer products like textiles, PET bottles, packaging, cosmetics and pharmaceuticals
- Replacing fossil-based plastics
- Renewable construction materials
- Carbon-storing buildings

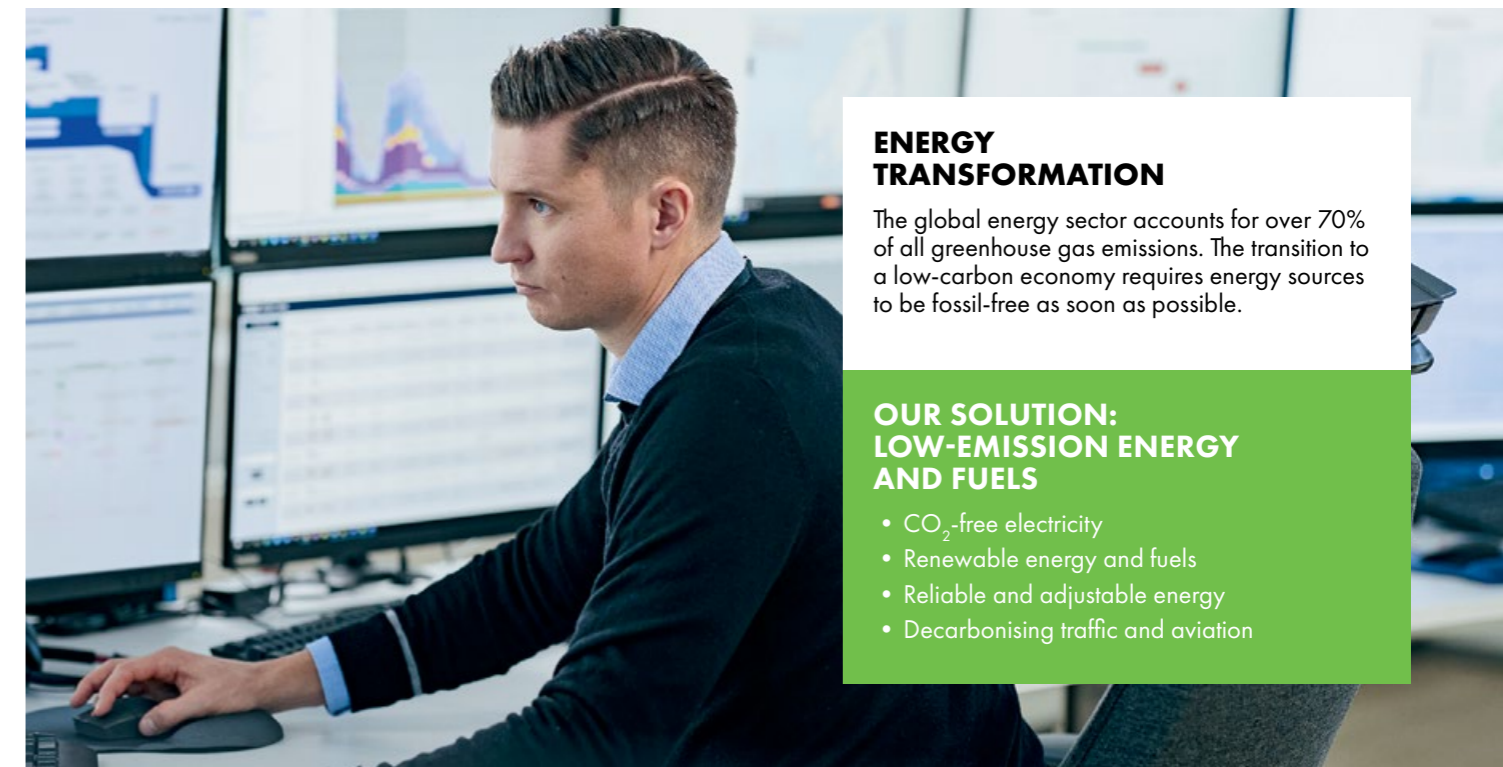


A SUSTAINABLE AND HEALTHY LIFE

Health and wellbeing depends, to a large extent, on safe hygiene products, both in personal care and medical use. Consumers need sustainable packaging and reliable information every day.

OUR SOLUTION: SUSTAINABLE PRODUCTS FOR DAILY NEEDS

- Fibres for hygiene and tissue products
- Safe food packaging materials
- Information labelling and sustainable packaging for e-commerce
- Papers for communication
- Personalised medicine



ENERGY TRANSFORMATION

The global energy sector accounts for over 70% of all greenhouse gas emissions. The transition to a low-carbon economy requires energy sources to be fossil-free as soon as possible.

OUR SOLUTION: LOW-EMISSION ENERGY AND FUELS

- CO₂-free electricity
- Renewable energy and fuels
- Reliable and adjustable energy
- Decarbonising traffic and aviation

HOW WE MAKE A POSITIVE IMPACT

We are transforming the world of materials by providing sustainable alternatives to fossil-based products. Sustainable forestry plays a key role here: forests are a source of renewable raw materials for a broad range of products, from everyday necessities to ground-breaking innovations. Growing forests are one of the biggest carbon sinks on the planet, second only to oceans. They are also critical to biodiversity and water systems. In everything we do, we care about the prosperity and wellbeing of people, local communities and the societies around us.

ENABLING SUSTAINABLE CHOICES

People make important purchasing decisions and we offer products that are better for society. Credible product information supports decision-making. We provide sustainable solutions and create a future beyond fossils.

- Renewable and recyclable materials
- Responsible supply chain
- Sustainable product design concept
- Eco-labelled products
- Responsibility across product lifecycle



TAKING CLIMATE ACTION

We're committed to the UN's 1.5°C climate target and to science-based measures to mitigate climate change. We're also committed to being net zero by 2040, ten years ahead of the Paris Agreement. We engage in climate-positive forestry wherever we operate.

- Our forests absorb CO₂ from the air as they grow
- We aim to reduce our own emissions by 65% and supply chain emissions by 30% by 2030
- Our products replace fossils in various end-uses



ENHANCING BIODIVERSITY

Forests are critical to biodiversity. Safeguarding biodiversity makes forests more resilient to climate change, thereby also benefitting our business. We enhance biodiversity in many ways.

- Global biodiversity programme, established in 1998
- Science-based biodiversity indicators
- Global Forest Action programme to run until 2030
- Stream water programme since 2016



ADVANCING A CIRCULAR BIOECONOMY

We use all raw material streams efficiently and reduce, reuse and recycle whenever possible. Cross-industry collaboration provides a greater impact.

- Products made from side streams, residues and recovered materials
- Recyclability integrated in sustainable product design concept
- Efficient use of resources
- Circular use of materials, nutrients and water

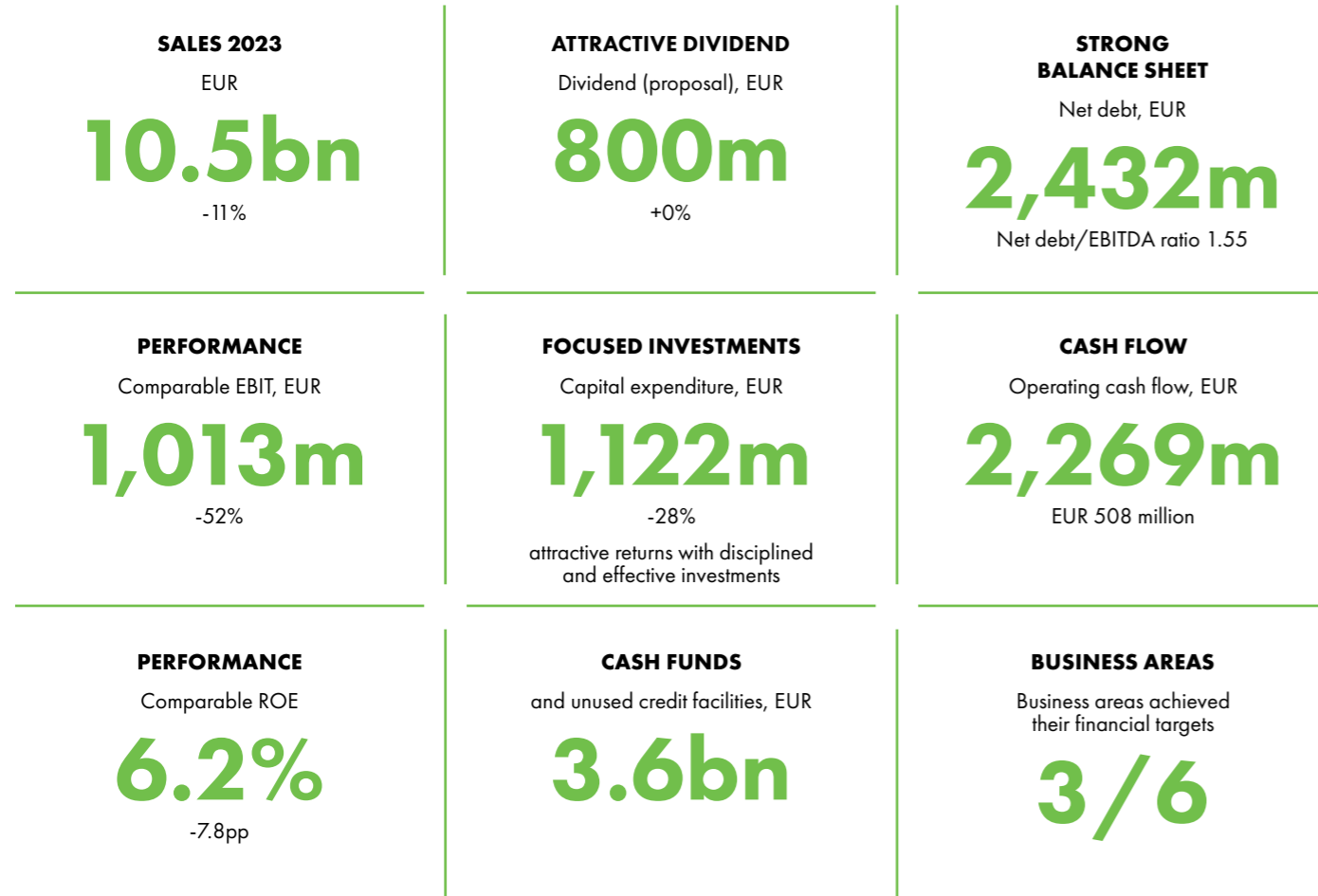


BUILDING THRIVING COMMUNITIES

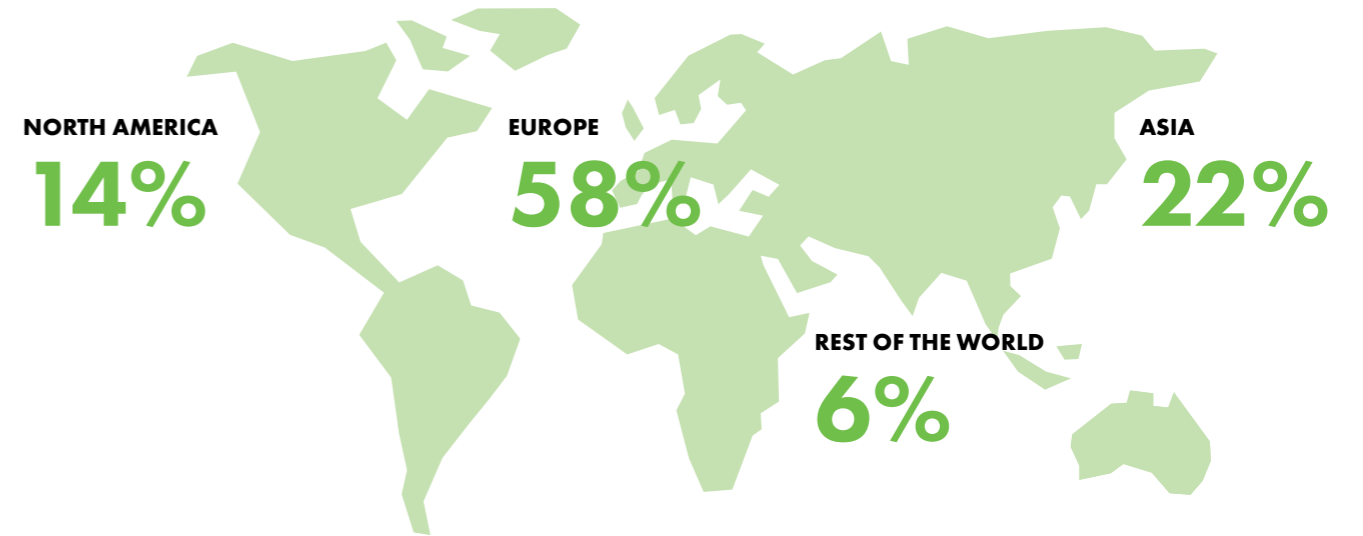
We are committed to developing the vitality of the communities around us. We invite an active and open dialogue, anticipate and manage the impacts of our operations and contribute to the sustainable development of the communities.

- Financial and social impact on communities
- Transparency of impacts
- Promoting diversity and inclusiveness
- The Biofore Share and Care programme

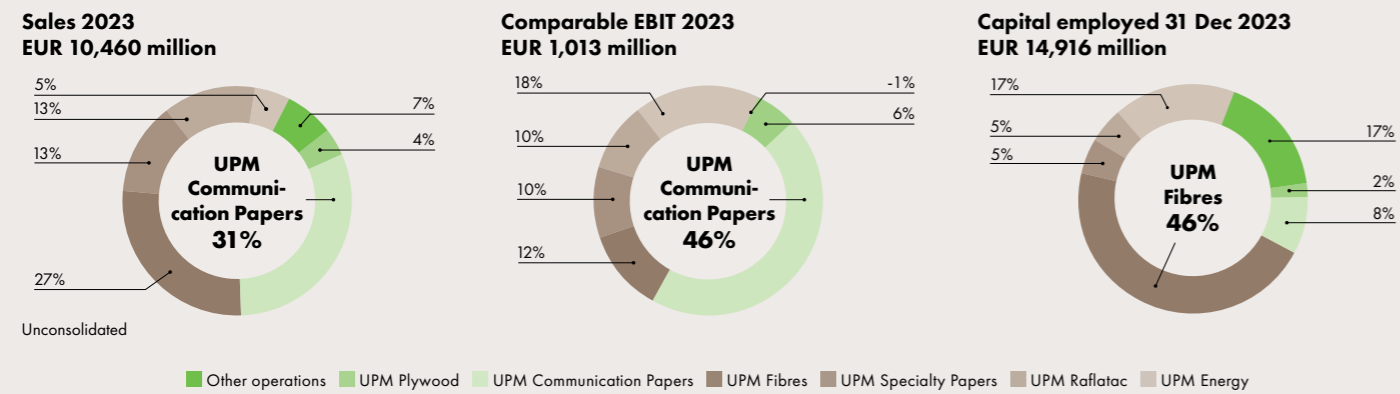
KEY FIGURES 2023



SALES BY MARKET



AIMING FOR CONTINUOUS IMPROVEMENT



2023 HIGHLIGHTS

JANUARY

- 30 UPM's stream water programme will release and restore 500 kilometres of Finland's rivers by 2030

FEBRUARY

- 2 UPM renews its dividend policy
- 9 UPM Biochemicals and HAERTOL Chemie GmbH start developing new sustainable coolants

MARCH

- 22 UPM plans capacity reduction in Schongau and accelerates its exit plan in the Steyrmühl paper mills. The paper machines are closed in June

APRIL

- 3 UPM finalises its full exit from Russia
- 12 Henrik Ehrnrooth is elected Chair of the Board of Directors. Pia Aaltonen-Forsell is elected as a new member of the Board at the AGM.
- 15 UPM Paso de los Toros pulp mill begins operations
- 18 UPM announces it will install eight electric boilers at the paper mills in Finland and Germany

MAY



Image: TVO

- 1 The OL3 nuclear power plant unit begins regular commercial electricity production
- 11 UPM Biomedicals enters Europe's top life sciences innovation hub in Basel, Switzerland

JUNE

- 1 UPM Biochemicals and Selenis start developing sustainable PETG plastic for packaging applications

- 1 UPM Energy's Kuusankoski hydropower plant renovation completed



- 6 UPM inaugurates its Paso de los Toros pulp mill in Uruguay
- 15 UPM Biochemicals and German outdoor apparel brand VAUDE to produce the world's first fleece jackets containing UPM's renewable chemicals
- 15 European Commission closes its antitrust investigation into the wood pulp sector

JULY

- 14 The first shipment of pulp from the UPM Paso de los Toros mill arrives in Qingdao, China



- 25 UPM updates the Leuna biochemicals refinery project schedule: start-up expected by the end of 2024 with an estimated investment of EUR 1,180 million
- 25 UPM Communication Papers announces plans to permanently close its Plattling mill in Germany. The mill is closed in November

AUGUST

- 1 UPM Biochemicals acquires SunCoal Industries
- 4 UPM receives platinum in the EcoVadis responsibility assessment with a high industry score
- 16 Sodium hydroxide leak at the Paso de Los Toros pulp mill storage area in Uruguay
- 25 Aki Temmes is appointed Executive Vice President at UPM Fibres and member of the Group Executive Team as of 1 December 2023

SEPTEMBER

- 19 UPM joins the Forward Faster Initiative to accelerate the progress of the UN's Sustainable Development Goals

OCTOBER



- 24 UPM announces that Jussi Pesonen, President and CEO will retire on 30 April 2024. Massimo Reynaudo is appointed President and CEO of UPM-Kymmene Corporation as of 1 January 2024

NOVEMBER

- 6 UPM publishes its updated Green Finance Framework
- 29 UPM Timber announces an investment to modernise the Korkeakoski sawmill in Finland

DECEMBER

- 11 UPM is listed in the Dow Jones Global and European Sustainability Indices (DJSI) for 2023–2024 as the only company in its industry

LEADER IN RESPONSIBILITY

Dow Jones Sustainability Index: The only forest and paper company in the Dow Jones European and World Sustainability Indices (DJSI) for 2023–2024.

MSCI ESG ratings: An AAA rating in the assessment. MSCI ESG Research provides ESG ratings on global public companies, according to their exposure to industry specific ESG risks and ability to manage those risks relative to peers.

CDP Programme: One of few companies to achieve a double A for our leadership in corporate transparency and performance on climate change and forests. For the water questionnaire, we received an A-.

S&P Global's Sustainability Yearbook: Top 10% S&P Global CSA Score in the Sustainability Yearbook 2023 as one of the top-scoring companies in our industry.

EcoVadis: The highest possible Platinum level for our sustainability performance for which only 1% of over 100,000 companies assessed globally attain.

Nature Benchmark: First among our peers in the paper and forest segment and among the top overall performers in the 2023 Nature Benchmark by World Benchmarking Alliance.

Bloomberg Gender-Equality Index (GEI): UPM is among the 484 public companies globally and one of the three Finnish companies in the 2023 index. The GEI lists the companies most committed to transparency in gender reporting and advancing women's equality.





CREATING SHAREHOLDER VALUE

Making more sustainable choices increases demand for our products and attracts interest from investors. Our goal is to increase our earnings and valuation in the coming years, while offering an attractive dividend to our shareholders.

-2.5%

Share price 2023

Dividend proposal
EUR

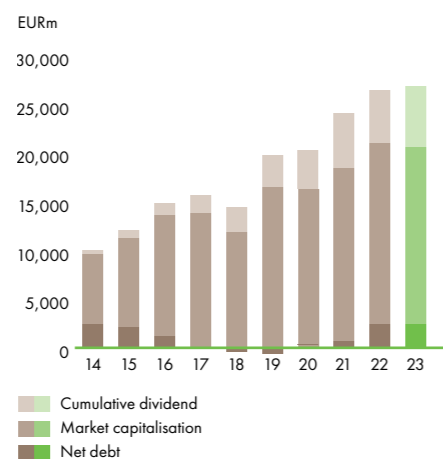
1.50

per share

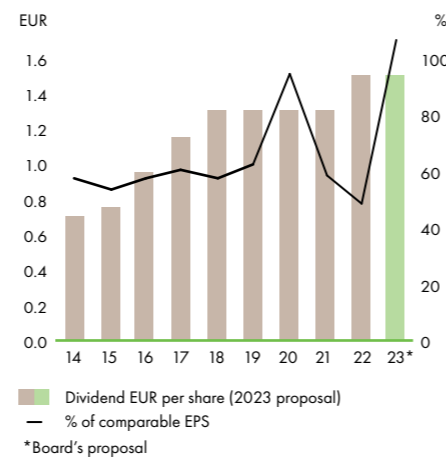
50%

Share of ESG-focused investors of all institutional shareholders

Enterprise value and cumulative dividends



Dividend per share



DRIVING LONG-TERM VALUE CREATION



Top performance enables investments in growth, innovation and responsibility

We aim for continuous improvement in our financial performance. We make good use of commercial strategies, tight cost control, materials and energy efficiency, effective capital allocation and efficient use of assets. We capture opportunities provided by our agile operating model, while capitalising on corporate synergies.



Value-enhancing growth

Consumer megatrends drive the demand growth for most of our products. This is further supported by the rapidly increasing need for sustainable alternatives to fossil-based materials and energy. We grow businesses with strong long-term demand fundamentals, where we have a clear competitive advantage. This underpins attractive returns on invested capital.

We are in an intensive growth phase. The UPM Paso de los Toros pulp mill is growing UPM's pulp production capacity by more than 50% at low costs; the OL3 nuclear power plant unit is increasing UPM Energy's carbon-free electricity generation by nearly 50% at an opportune time, and the UPM Leuna biorefinery, due to start by the end of 2024, will open a completely new growth business in biochemicals.



Responsibility is good business

For us, sustainability is an important driver for growth and competitiveness. We capture the opportunities presented by increasingly responsible consumer choices and tightening regulations for mitigating climate change and answering the plastics challenge, for example. Responsible operations and value chains help to mitigate risks.



Innovating for a future beyond fossils

We innovate new growth businesses with a unique competitive position in biochemicals, biofuels, biomedical and speciality packaging materials, for example. The successful commercialisation and scale-up of the businesses to a significant size are important. We protect our intellectual property.



An improving business portfolio drives profitability and valuation

Increasing our share of sustainability-driven higher-margin growth businesses improves our long-term profitability and boosts the value of our shares. On average, UPM's growth businesses have more than two times higher EBIT margins than the mature graphic paper business.



Strong balance sheet

Our strong balance sheet mitigates risks and enables us to implement our Biofore strategy even during uncertain times.



Attractive dividends

We aim to pay attractive dividends, targeting at least half of the comparable earnings per share over time.

5-YEAR SHARE PERFORMANCE AND VALUATION MULTIPLES

	2023	2022	2021	2020	2019
Share price at 31 Dec, EUR	34.06	34.93	33.46	30.47	30.91
Comparable EPS, EUR	1.40	3.09	2.22	1.37	2.07
Dividend per share, EUR	1.50 ¹⁾	1.50	1.30	1.30	1.30
Dividend to comparable EPS, %	107	49	59	95	63
Effective dividend yield, %	4.4	4.3	3.9	4.3	4.2
P/E ratio	46.8	12.2	13.9	29.0	15.5
P/BV ratio ¹⁾	1.63	1.49	1.65	1.74	1.64
EV/EBITDA ratio ²⁾	13.1	8.3	10.2	11.3	8.7
Market capitalisation, EUR million	18,165	18,629	17,845	16,250	16,485

¹⁾ 2023: Board's proposal

¹⁾ P/BV ratio = Share price at 31 Dec./Equity per share

²⁾ EV/EBITDA ratio = (Market capitalisation + Net debt)/EBITDA



BIOFORE STRATEGY

UPM is a biomaterials growth company. We supply sustainable materials for everyday consumer needs, reliable carbon-free energy to electrify society, and renewable alternatives to fossil materials and fuels.

The Biofore strategy drives our growth and transformation as a frontrunner in biomaterials. The COP28 UN Climate Change Conference highlighted the obvious – that the world needs to transition away from fossil fuels and raw materials. This goes hand-in-hand with our purpose: We create a future beyond fossils.

Focus on performance

At UPM, we foster a culture of high performance. 2023 saw many markets experience an unusually strong slowdown, particularly those in Europe. Geopolitical tensions also remained high. Despite such a challenging operating environment, we achieved a solid performance thanks to our agile operating model, competitive businesses and continuous improvement mindset.

Through effective capital allocation, we aim to grow our earnings and improve our business portfolio while maintaining a strong balance sheet.

Transformative growth and innovation

Implementing the Biofore strategy continued at full speed in 2023, with production starting on two transformative growth projects. In the first instance, the new and highly competitive UPM Paso de los Toros pulp mill will supply sustainable fibres suitable for a wide range of daily consumer needs, growing our pulp production capacity by more than 50%. Secondly, as a shareholder of the OL3 nuclear power plant unit, we will supply carbon-free electricity to electrify society, growing our energy business by nearly 50%.

At the same time, we are developing new innovation-driven growth businesses. Construction continued at our first-of-its-kind biochemicals refinery in Germany, as did basic engineering of a potential new biofuels refinery in the Netherlands. With our customers also having their own ambitious sustainability targets, such innovations are in high demand.

Leader in responsibility

We are one of the world-leading companies in responsibility. Our visionary purpose and values guide and inspire us to create a positive impact on society and value for our shareholders.

Our renewable and recyclable products meet the everyday needs of consumers while addressing many global challenges, such as climate change and resource scarcity.

Many of our products offer sustainable alternatives to fossil raw materials and energy – for example by replacing fossil plastics in consumer products, steel and cement in construction, or fossil fuels in traffic, aviation and electricity markets. Furthermore, we provide our customers with entirely new solutions, creating new innovative growth businesses.

OUR PURPOSE: WE CREATE A FUTURE BEYOND FOSSILS

GROWTH

- We respond to megatrends and meet customers' changing needs
- We create new markets and enabling sustainable choices

INNOVATION

- We create new business and competitive advantage
- We replace fossils with biomaterials

PERFORMANCE

- Continuous improvement
- Agile operating model
- Corporate synergies

RESPONSIBILITY

- Renewable and sustainable solutions
- Responsible operations and value chain

PORTFOLIO CHOICES

Strategic access to sustainable renewable raw materials

Investing in businesses with strong long-term fundamentals for growth and high barriers to entry

Effective capital allocation with attractive returns

VALUES

Trust and be trusted

Achieve together

Renew with courage



ACCELERATING GROWTH

Our transformation is in an intensive phase, with growth investments totalling EUR 4.2 billion either starting production in 2023, or scheduled to be completed by the end of 2024.

IMPACT

- We create a future beyond fossils
- We enable our customers and consumers to make more sustainable choices

TARGETS

- Earnings growth
- Attractive returns
- Successful commercialisation

OUR WAY

- Sustainable and safe solutions
- Strong long-term fundamentals for demand growth
- High barriers to entry and a competitive advantage
- Strict return requirements
- Talent attraction

OVER 50% GROWTH IN THE PULP BUSINESS



Global consumer megatrends and the need to find more sustainable alternatives to fossil-based materials support demand growth for market pulp. The requirements for competitive greenfield pulp operations, such as highly productive plantation operations, good mill location and efficient logistics, are difficult to meet and thus provide a lasting competitive advantage.

Production in our world-class pulp mill in UPM Paso de los Toros in Uruguay started in April 2023 and customer deliveries began in May. The production reached about 850,000 tonnes in 2023 and this is expected to more than double in 2024. The mill was EBITDA positive in H2 2023, and is expected

to turn EBIT positive during H1 2024. The new pulp deliveries have been well received by our customers.

The mill has an annual capacity of 2.1 million tonnes of eucalyptus market pulp. The USD 3.47 billion investment has raised our pulp production capacity by more than 50%. Given the highly competitive cash costs expected and the large scale of the mill, the investment is expected to significantly contribute to our future earnings, and the competitive business platform in Uruguay will offer further growth opportunities in the future.

- > UPM Pulp on page 38
- > UPM Paso de los Toros on page 24

NEARLY 50% GROWTH IN CO₂-FREE ELECTRICITY GENERATION



Climate change mitigation requires the further electrification of society and the rapid reduction of the use of fossil-based fuels. Russia's war in Ukraine and the resulting turbulence in the European energy markets also emphasised the importance of supply security and energy competitiveness.

UPM is a shareholder in the new OL3 nuclear power plant unit, which started regular commercial production in May 2023. The new unit increased UPM Energy's CO₂-free

electricity generation by nearly 50%. It has also significantly improved the self-sufficiency, supply security and climate performance of Finland's electricity system.

- > UPM Energy on page 42

TRANSFORMATIVE NEW BUSINESSES BEYOND FOSSILS



Demand for sustainable alternatives to fossil-based chemicals in consumer products and decarbonising traffic and aviation with renewable fuels create significant new business opportunities. Access to sustainable feedstocks, proprietary technology concepts and providing high-quality products to demanding customer segments are expected to provide a lasting competitive advantage for UPM.

UPM Biochemicals is preparing for a commercial-scale market entry. Our next generation biochemicals refinery in Leuna, Germany is due to start production by the end of 2024. The EUR 1,180 million investment will provide a first-of-its-kind biorefinery with an annual capacity of 220,000 tonnes of wood-based biochemicals. UPM Biochemicals is also proceeding with the commercialisation of its products and signed the

first customer contracts in 2023. Application areas include wood-based recyclable PET bottles, coolants for electrical vehicles, raw materials for textiles and renewable functional fillers to significantly reduce the carbon footprint and weight of rubber and plastic applications.

UPM Biofuels already supplies the markets with UPM BioVerno renewable diesel and naphtha. UPM Biofuels initiated proceedings to qualify its renewable fuels as sustainable aviation fuel. What's more, we are currently in the basic engineering phase of a potentially larger next-generation biorefinery, located in Rotterdam in the Netherlands, which would scale up the business.

- > UPM Biochemicals on page 54
- > UPM Biofuels on page 52

GROWTH AND PRODUCT INNOVATION IN SPECIALTY PACKAGING MATERIALS



Global consumer megatrends are driving demand for sustainable and safe labelling and packaging solutions. Even though market deliveries were low in 2023, the long-term fundamentals for growth are appealing and intact.

We are still seeking growth in the specialty paper and self-adhesive label materials segments. Our focus is on expanding customer reach and continuously developing our product portfolio. Our strong position and innovations in these technically demanding and fast-growing niche segments of the packaging value chain provide attractive growth opportunities.

In 2023, UPM Raflatac successfully integrated AMC AG, a German self-adhesive label materials company, to speed up its growth strategy. The acquisition opens up new attractive product segments and further strengthens UPM Raflatac's position in the filmic products segment in Central Europe. UPM Specialty Papers has also made further progress with its barrier paper products, which provide a sustainable and recyclable alternative for flexible packaging applications, for example.

- > UPM Raflatac on page 44
- > UPM Specialty Papers on page 46

UPM PASO DE LOS TOROS

Our new world-class pulp mill is a significant step for UPM's future earnings and shareholder value.

Our unique plantation-based business platform offers further opportunities in various biomaterials.



IN SHORT

- Annual production capacity of 2.1 million tonnes of eucalyptus pulp
- Total investment of USD 3.47 billion
- Expected cash cost level of USD 280 per delivered tonne of pulp once in full production and optimised
- Competitive wood supply, best available techniques and efficient logistics
- The new deep sea pulp terminal and port operations in Montevideo
- High safety and sustainability standards
- The mill was EBITDA positive in H2 2023, and is expected to turn EBIT positive during H1 2024.

Turning point for the future

The UPM Paso de los Toros pulp mill in Uruguay is a major milestone in UPM's transformation. The mill began its operations in April 2023 and the first customer deliveries were shipped in May. The focus is now on increasing the overall stability and production output on a continuous basis.

The new mill will grow UPM's pulp capacity by more than 50% and places UPM among the leading eucalyptus pulp suppliers in the world. The outlook for long-term pulp demand is positive and supported by global megatrends like urbanisation, population growth and the need for renewable materials. With the new capacity and stronger global customer reach, UPM is well positioned to capture the opportunities of growing end-use markets in a competitive

way. The targeted cash cost level of USD 280 per delivered tonne of pulp enables the mill to make attractive returns for the investment in various market scenarios.

Making an impact

The new mill is estimated to increase Uruguay's GDP by about 2%. The central and north-eastern regions of Uruguay represent the relatively less developed regions in the country considering the number of households below the poverty line, regional competitiveness, social and financial measurements as well as road network and infrastructure.

The pulp mill, together with forestry, wood and pulp logistics and other related activities, is creating around 10,000 new permanent jobs, of which 4,000 are direct

port terminal in Montevideo. Public infrastructure investments improve the competitiveness of all export sectors in Uruguay.

The mill generates an annual surplus of around one TWh of renewable wood-based electricity. It provides a stable source of revenue and strengthens Uruguay's energy balance.

The mill meets strict Uruguayan environmental regulations, international standards and recommendations for modern mills. Our extensive environmental monitoring programme covers water and biota, air, soil, noise and socio-economic aspects. Despite our high standards of process control, sodium hydroxide, a chemical commonly used in pulp production, leaked from the chemical storage area to the environment in August (page 93).

Sustainable plantations

Our eucalyptus plantations in Uruguay have established a new renewable raw material base for growing global fibre needs. Eucalyptus availability for the mill is secured through plantations owned or leased by UPM, as well as through wood sourcing agreements with private partners. Plantations are a significant carbon sink, the size of which is calculated annually by the Natural Resources Institute Finland. They do not compete with food production or affect natural forests.

Our world-class tree nursery operations with three nurseries in Uruguay are producing more than 40 million eucalyptus seedlings a year. The third nursery in Sarandí del Yí began its operations in Q1 2022 and ensures the required annual planting capacity to supply the new mill.

R&D plays a crucial role in optimising our plantation operations in Uruguay but also selecting materials with the best characteristics for pulp production and fibre properties for our customers. Our forestry research centre in Paysandú, which has been operating since May 2022, focuses on developing the best possible genetic materials for tree plantations. The centre is also part of several research streams related to the sustainability of eucalyptus production including, for example, water usage on plantations and biodiversity surveys.

➤ [Enhancing biodiversity on page 84](#)

➤ [Railroad safety programme on page 73](#)



SPOTLIGHT

PROTECTING BIODIVERSITY IN URUGUAY

The three kilometres of footpaths on two trails in the Esteros y Algarrobales del Río Uruguay (EARU) biodiversity reserve allow you to see many native plant and animal species and ecosystems. More than 900 species have been identified in the area during the monitoring sessions UPM carries out annually.

As the landowner of this reserve and the surrounding forest plantations, UPM actively promotes the protection of the wildlife living in this area. This reserve located in the Río Negro province has four different environments: the Chaco open forest, sandbanks, wetlands and the riverine forest, each with its unique group of species generating a considerable biodiversity richness.

We aim to protect the most important species and ecosystems in the areas through the global biodiversity programme. In Uruguay, we have a network of 33 biodiversity reserves aimed at preserving sensitive ecosystems including grasslands, native forests, wetlands and other natural ecosystems. These areas cover 14,500 hectares. Each reserve has its own management and monitoring plan, drawn up in collaboration with the Uruguayan NGO Vida Silvestre.

In 2023, we opened a new visitor centre in the biodiversity reserve, including facilities and equipment for researchers. The visitor centre plays a major role in teaching children and young people about Uruguayan nature.

➤ www.upm.uy/earu (esp)

ENSURING PERFORMANCE

We aim for continuous improvement in financial performance through our agile operating model, performance culture and effective capital allocation. In 2023, our comparable EBIT decreased by 52% from the previous year's all-time record.

IMPACT

- Top performance enables investments in growth, innovation and responsibility
- Effective capital allocation drives the company transformation and enhances long-term value creation

TARGETS

- Continuous improvement
- Top performance in each business
- Growth in comparable EBIT
- Attractive returns
- Strong balance sheet

OUR WAY

- Agile operating model
- High-performing people
- Commercial excellence
- Cost efficiency
- Efficient use of assets and capital
- Capitalise on corporate benefits and synergies

In 2023, the business environment was exceptional, with a downcycle well beyond the norm in our industry, especially in Europe. Geopolitical uncertainty, low economic activity, persistent inflation and increased interest rates impacted the underlying demand for consumer products. Market deliveries of our products were further held back by unprecedented destock-

ing in most of the product value chains. In these unusual circumstances, we focused on margin management, and implemented a range of timely cost and capacity reduction measures to maintain good performance. Most raw material costs started to decline during 2023. The exception was wood costs in the Nordic area, which remained high.

Meanwhile, we ramped up our strategic growth projects, and continued to build the foundation for future growth. The highly competitive UPM Paso de los Toros pulp mill was EBITDA positive in H2 2023 and grew our pulp production capacity by more than 50%. Now about 60% of our pulp production is based on a low-cost platform in Uruguay. Furthermore, our wood

raw material self-sufficiency will increase significantly once the Uruguayan operations are fully up and running. The OL3 nuclear power plant unit started regular commercial production in May. This grew our energy business significantly and contributed to the easing of the energy crisis in Finland.

Agile operating model

Our businesses in various parts of the bio and forest industry value chain operate as separate market-facing entities, both in terms of customers and suppliers. This enables agility in a fast-changing business environment, higher efficiency, differentiated commercial strategies, optimal sourcing, the right incentives, wider product development opportunities and effective capital allocation.

At the business area level, we are targeting top performance in their respective markets. We have also set long-term return targets (ROCE %, below) for the six business areas. The return targets apply over business and investment cycles. In 2023, three out of six business areas achieved or exceeded the targeted returns.

Capturing corporate synergies

- We build on corporate synergies, adding value to our businesses and stakeholders with:
- Competitive and sustainable wood sourcing, forestry and plantation operations
 - Efficient and responsible global functions

- Group-wide continuous improvement programmes in commercial strategies, variable costs, working capital, site and maintenance costs, safety and environmental performance
- Technology development and intellectual property rights
- Global business platform
- Disciplined and effective capital allocation
- Compliance, UPM Code of Conduct and strong UPM brand

Effective capital allocation

Capital allocation is key to attractive long-term returns, as well as developing the business portfolio in areas with the best long-term value creation potential. At UPM, capital allocation decisions take place at the corporate level.

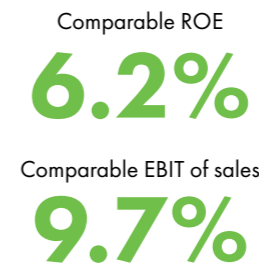
UPM plans to allocate capital in order to:

- Invest to grow the company and its earnings. UPM invests in sustainable

- businesses with strong long-term fundamentals for demand growth and a clear competitive advantage or high barrier to entry for superior returns. UPM targets growth in comparable EBIT and comparable return on equity exceeding 10%.
- Pay attractive dividends. UPM aims to pay attractive dividends, targeting at least half of the comparable earnings per share over time. The targeted earnings growth drives dividend growth over time.
- Maintain a strong balance sheet. According to UPM's leverage policy, net debt to EBITDA ratio is to be less than 2. An investment grade rating is an important element in the financing strategy.
- Share buybacks. They are a complementary tool that may be used relative to investment opportunities and company valuation.

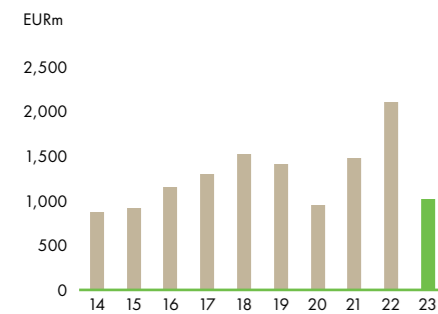
Currently, our transformation is in an intensive phase, with growth investments totalling EUR 4.2 billion scheduled to be completed by the end of 2024. For such investments, our ROCE target is 14% and we aim to achieve higher profitability on average than in the growing businesses.

- [Creating shareholder value on page 18](#)
- [Accelerating growth on page 22](#)
- [2030 responsibility targets on page 32](#)
- [Financial Statements on page 163](#)

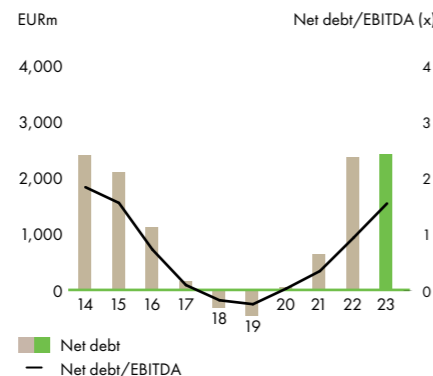


BUSINESS AREA RETURNS AND LONG-TERM TARGETS

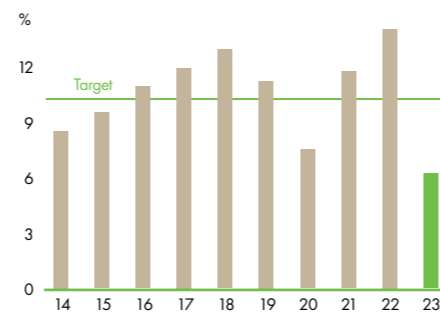
Comparable EBIT



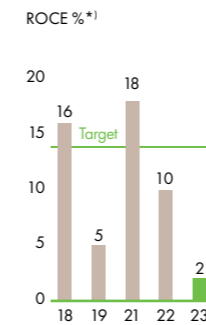
Net debt and leverage



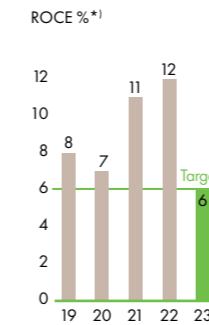
Comparable ROE



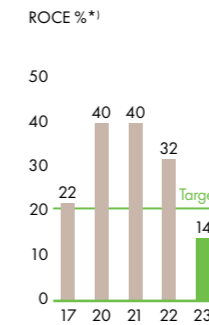
UPM Fibres



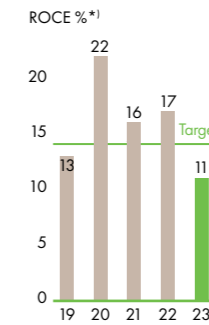
UPM Energy ***)



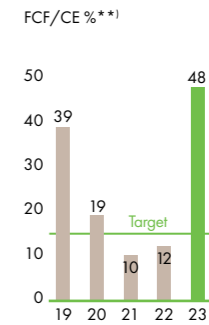
UPM Raflatac



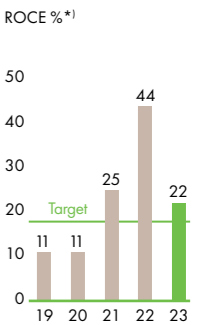
UPM Specialty Papers



UPM Communication Papers



UPM Plywood



*1) ROCE % = Return of capital employed excluding items affecting comparability
 **1) Free cash flow after investing activities and restructuring costs
 ***1) Shareholdings in UPM Energy valued at fair value

INNOVATING FOR THE FUTURE

We innovate climate-positive products and turn them into growing businesses.



IMPACT

- Respond to global megatrends and growing demand for bio-based products
- Reduce the use of fossil raw materials and reliance on the fossil-based economy
- Provide more sustainable choices for customers and consumers

TARGETS

- Replacing fossil raw materials with renewable alternatives
- Accelerating the commercialisation of bio-based solutions into viable industrial-scale operations
- Creating new business and a competitive advantage

OUR WAY

- In-depth expertise in forest biomass processing
- Responsibility and circular bioeconomy
- Sustainable product design
- Technological development and intellectual property rights
- Innovation culture, current and future competences
- Extensive partner network

Our products offer solutions to mitigating climate change as they replace fossil raw materials with renewable alternatives. The products store carbon for the entire duration of their lifecycle and this is extended when recycled multiple times. We co-create new solutions in collaboration with our businesses, technology partners and customers.

Innovation and R&D programmes are essential in the development of new products and technologies. Research and development expenses cover the development of new technologies, businesses and processes. In 2023, we spent EUR 538 million (EUR 414) million) on research and development, which accounted for 23.7% (81.5%) of operating cash flow. In addition to direct R&D expenditure of EUR 66 (55) million, the figure includes negative operating cash flow and capital expenditure in developing businesses, transformative business prospects and digitalisation projects.

The patents, trademarks and intellectual property rights protecting our innovations support the journey from innovation to business. We have more than 3,600 patents and patent applications, and more than 1,700 trademarks globally. Licensing innovations and technologies provides an excellent basis for value creation with customers and technology partners.

Extensive partner network

Our close-knit global partner network includes customers, universities, research organisations, suppliers and start-up companies. Collaboration speeds up the development and launch of new business solutions.

Our network includes the Circular Bio-based Europe Joint Undertaking (CBE JU), the European Chemical Industry Council (Cefic) and the Renewable Carbon Initiative (RCI). We are a member of the 4evergreen alliance, an initiative created by the Confederation of European Paper Industries (Cepi) to raise the overall recycling rate of fibre-based packaging to 90% by 2030. We are also a member of EURO-PEN, the European association that strives towards achieving carbon neutrality in the packaging value chain.

We want to take part in the developments that reduce greenhouse gas emissions. In 2023, we actively participated in Hydrogen Cluster Finland to create new technologies, business opportunities and climate benefits throughout the network.

- [What the world needs on page 10](#)
- [Sustainable product lifecycle on page 98](#)

OUR FOCUS IN 2023

INNOVATING CLIMATE-POSITIVE PRODUCTS



Our biochemicals refinery in Leuna, Germany, will enable us to switch from fossil raw materials to wood-based alternatives in textiles, plastics, PET bottles, packaging and pharma. To accelerate product development, UPM Biochemicals announced several partnerships in 2023.

Co-creating products with customers and technology partners continued. For example, we introduced the world's first fleece jacket containing 30% of wood-based polyester as well as fully fibre-based heat-sealable packaging and a bio-attributed jar for a moisturiser.

The step from mainly fossil-based plastic packaging to biomaterials requires R&D in numerous areas. Our work focused on packaging paper and pulp value chains, including pulp side streams such as lignin. We led a collaboration project on finding alternatives for fossil-based binders and coatings.

We are examining new ways to utilise renewable biomaterials for textiles, nonwovens, hygiene products and labels for example. We are also looking into the opportunities provided by green hydrogen and biogenic CO₂ (page 91).

EXPANDING R&D INFRASTRUCTURE



UPM's three Biofore Base research centres accelerate the development of bio-based products. The centres focus on research, piloting and analytics, enabling seamless collaboration with customers, value chain partners and research organisations such as universities. They work closely with UPM's mills, businesses and business-specific research centres in various countries.

In 2023, we continued to strengthen our infrastructure in Germany, Finland, Switzerland and Uruguay. In Germany, we intensified biochemical

R&D and piloting in several of our laboratories in connection with the upcoming biochemicals refinery, supported by the acquisition of Suncoal Industries (page 54).

In Finland, we expanded our research centre in Lappeenranta with the main focus on developing biomolecular businesses. In Uruguay, we focused on piloting future pulp end-uses in close collaboration with our forestry research centre specialising in eucalyptus plantations. UPM Biomedicals opened a new cell laboratory in Basel, Switzerland.

IMPLEMENTING A SUSTAINABLE PRODUCT DESIGN CONCEPT



Our 2030 responsibility targets and contribution to the UN SDGs are integrated into our R&D activities and product development. We want our products to create value for our stakeholders during the whole product lifecycle.

We carried out screenings in the early stages of product development using a tool we developed to map impacts on the SDGs. Based on the feedback we obtained, we continued to develop the tool by reviewing and adapting the questions included in the tool. The concept was also tested to investigate

product reuse with UPM Biocomposites and UPM Rafatac.

Our approach applies lifecycle thinking and lifecycle assessment data, both of which are incorporated in sustainable product design practices. Life Cycle Assessment (LCA) and carbon footprint are key tools in our concept. They provide credible environmental data over the lifecycle of products under development and for products already available on the market. We also continued to conduct biodegradability and recyclability testing.

DEVELOPING R&D COMPETENCES



R&D supports our growth and responsibility targets globally, enhances technology-triggered business opportunities and protects performance in existing businesses. Strong focus is placed on the growth businesses and close collaboration with customers and production.

We continuously develop our competences for the future needs of our businesses. Competence development is essential for the entire organisation, including both technical capabilities and ways of working.

We focused especially on chemical safety and behavioural safety at work, noting both safe and at-risk behaviours. Our R&D and piloting teams have also become more international thanks to successful recruitments and onboarding. In addition to internal competence development, we collaborate with universities and vocational schools to enhance mutual learning.

VALUE FROM RESPONSIBILITY

Creating value for society, both as a responsible company and through our renewable and sustainable solutions, is an integral part of our strategy.

Our Biofore strategy guides us in achieving our responsibility targets for 2030 and in contributing to the UN Sustainable Development Goals (SDGs). We are committed to creating value from renewable and recyclable materials, reducing our environmental footprint, and enhancing our positive social impact.

We have linked our financing to our sustainability performance. Our revolving credit facility is linked to our long-term biodiversity and climate targets, and we have issued three green bonds since 2020. In 2023, we updated our Green Finance Framework, which received the highest rating of “Dark Green” from S&P Global Ratings, in line with the framework we established in 2020.

Responsibility-related measures are included in our management remuneration. They cover the reduction of fossil CO₂ emissions from our on-site combustion and purchased energy, the achievement of a net positive impact on biodiversity in our own forests in Finland, and the achievement of gender pay equity globally. These measures account for 20% of all performance measures.

- [Our responsibility targets and how we did in 2023 on pages 32–33](#)
- [Our responsible way of operating on pages 58–101](#)
- [Committed to compliance on page 74](#)
- [Managing responsibility on page 138](#)
- www.upm.com/responsibility

IMPACT

- Renewable raw materials and recyclable products advance the transformation to a circular bioeconomy
- Our solutions respond to global challenges, such as climate change and resource scarcity

TARGETS

- Create value for our stakeholders
- Wide set of 2030 responsibility targets

OUR WAY

- We respect international agreements, such as the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work and the OECD Guidelines for Multinational Enterprises
- Our purpose, values, UPM Code of Conduct, and UPM Supplier and Third-Party Code provide a solid foundation for decision-making, management and operations
- Responsibility is managed by the Board of Directors and the Group Executive Team, as well as by businesses and functions
- Responsible business conduct in all our operations

SPOTLIGHT

FORWARD FASTER – TOWARDS GENDER EQUALITY, LIVING WAGES AND NET-ZERO EMISSIONS

In September, we joined the UN Global Compact Forward Faster Initiative together with 138 other companies. This ambitious undertaking calls for global business leaders to take tangible actions to accelerate the progress of the UN’s Sustainable Development Goals (SDGs). Our commitment encompasses three focus areas: promoting gender equality, ensuring living wages and aligning our operations with an ambitious net-zero emission target.

Our pledge on gender equality signifies our commitment to fostering equal gender

representation, participation and leadership at all levels of management by 2030 and to guaranteeing equal pay for equal work for all our employees.

Companies committed to the living wage must ensure that their employees earn a living wage by 2030. The climate commitment challenges companies to set a science-based net-zero emissions target in line with the 1.5°C pathway and to achieve it by 2050 at the latest.

Companies in this initiative will report on their progress to the Global Compact annually. The first official year of reporting year is 2025, but the relevant topics are already covered in our public reports.

OUR FOCUS IN 2023

DIALOGUE WITH STAKEHOLDERS



We received criticism of our operations in Finland and Uruguay from some stakeholders. The discussion in Finland was primarily about harvesting levels, the use of pulp in single-use products and pulp colonialism in Uruguay. There have been calls for significant restrictions in logging volumes to preserve carbon sinks and protect biodiversity. Some stakeholders were concerned about UPM’s operations in Uruguay and their possible link to the water scarcity in the Montevideo region in the summer and the sodium hydroxide leak at the pulp mill (page 93).

UPM and NGOs have different views on how to address climate change and loss of biodiversity, but the goal is the same. We think that active and timely forest management maintains carbon sinks and ensures the positive development of biodiversity while society needs to reduce its reliance on fossil fuels and raw materials.

We responded to stakeholders’ concerns at local, national and international level, participated in the public debate and met with representatives of NGOs.

ENHANCING BIODIVERSITY AND CLIMATE ACTIONS



Our collaboration continued with the Science Based Targets Network (SBTN) (page 85). We also explored the potential of utilising environmental DNA methodology through several pilot projects, to assess its suitability for biodiversity measurement and reporting. All quantitative indicators showed a positive trend in relation to our target of net-positive impact on biodiversity in our own forests in Finland. This was also the case in Uruguay with the chosen key performance indicators.

We tested the Greenhouse Gas Protocol Land Sector and Removals Guidance documentation and carried out a feasibility study to deepen our understanding of the Science Based Target initiative’s (SBTi) Net-Zero methodology. We also committed to setting a net-zero target based on the SBTi (page 86). We also reviewed and updated our Scope 3 reporting (page 91). We continued the –30 by 30 programme to reduce CO₂ emissions of purchased goods and services and logistics.

STRENGTHENING SOCIAL RESPONSIBILITY AND HUMAN RIGHTS WORK



We continued to develop our human rights risk assessment approach related to our supply chains and investments and reviewed our corporate salient human rights issues in connection to our materiality assessment. As part of our human rights due diligence development work, we started a forward-looking human rights impact assessment related to our operations in Uruguay with an external partner (page 72).

We launched a global safety project with the aim to develop safety practices further and engage people more in safety. We also continued our work to

develop process safety and implemented a UPM-wide process safety standard that sets minimum requirements for process safety (page 70).

We are committed to developing an organisational culture and local conditions that ensure a diverse and inclusive working environment. In 2023, we introduced our first Employee Resource Group, BeU, which is specifically focused on creating a welcoming and inclusive workplace for members of the LGBTIQ+ community worldwide (page 69).

DEVELOPING REPORTING AND GOVERNANCE



The EU’s Corporate Sustainability Reporting Directive (CSRD) will broaden the requirements for sustainability reporting. In order to be well prepared, we launched a cross-functional project to improve reporting controls and data availability, for example. UPM’s reporting framework was comprehensive even before the new directive. We have used integrated corporate reporting since 2007 and limited assurance since 2011, according to the GRI; our pulp and paper mills have been registered with the EU’s EMAS since the 1990s and we have

made product level information readily available. As part of the development, the assurance for our fossil CO₂ emissions (Scope 1 and 2) was changed from limited to reasonable assurance.

We started a project to re-evaluate our way of managing ESG matters and the scope of related policies to clarify our approach and ensure better alignment with future requirements.

In 2023, we included the Taskforce for Nature-related Financial Disclosure (TNFD) in the reporting framework (page 142).

OUR RESPONSIBILITY TARGETS FOR 2030

Focus area	Key performance indicator	2030 target	2023 result
ECONOMIC			
Profit Creating value to shareholders	<ul style="list-style-type: none"> Comparable EBIT Comparable ROE Net debt/EBITDA 	<ul style="list-style-type: none"> Comparable EBIT growth through focused top-line growth and margin expansion (continuous) 10% (continuous) 2 times or less (continuous) 	<ul style="list-style-type: none"> 52% decrease to EUR 1,013 million (2,096 million) 6.2% (14.0%) 1.55 times (0.94)
Governance Ensuring accountability and compliance	<ul style="list-style-type: none"> Participation in UPM Code of Conduct training 	<ul style="list-style-type: none"> 100% (continuous) 	<ul style="list-style-type: none"> 98% (97%) of active employees completed the training
Responsible sourcing Adding value through responsible business practices	<ul style="list-style-type: none"> UPM spend covered by UPM Supplier and Third-Party Code UPM raw material spend covered by UPM Supplier and Third-Party Code¹⁾ Supplier auditing based on systematic risk assessment practices CO₂ emissions from materials and logistics (Scope 3), compared to 2018 	<ul style="list-style-type: none"> 80% (continuous) 100% Continuous -30% 	<ul style="list-style-type: none"> 89% (88%) 98% (96%) 95 (121) supplier audits based on identified risks. 890 (360) contractor reviews with focus on working conditions -23% compared to 2018
ENVIRONMENTAL			
Forestry Ensuring sustainable land use	<ul style="list-style-type: none"> Climate-positive land use in UPM's own and leased forests Share of certified fibre²⁾ 	<ul style="list-style-type: none"> Forests as carbon sinks (continuous) 100% 	<ul style="list-style-type: none"> Five-year annual average carbon sink was approx. -4.8 Mt of CO₂ equivalents 87% (86%)
Biodiversity Enhancing biodiversity	<ul style="list-style-type: none"> Positive impact on forest biodiversity and developing a monitoring system⁴⁾ Obstacle-free streams⁵⁾ 	<ul style="list-style-type: none"> Positive development (continuous) 500 km 	<ul style="list-style-type: none"> Overall positive development measured in Finland and in Uruguay 186 km (174 km) reached
Climate Creating climate solutions and working towards carbon neutrality	<ul style="list-style-type: none"> Fossil CO₂ emissions from UPM's on-site combustion and purchased energy (Scope 1 and 2), compared to 2015 Coal and peat usage in on-site energy generation Annual energy efficiency improvement Share of renewable fuels Acidifying flue gases (NO_x/SO₂) for a UPM average product, compared to 2015 	<ul style="list-style-type: none"> -65% 0 1% (continuous) 70% (continuous) -20% 	<ul style="list-style-type: none"> -45% compared to 2015 and -17% compared to 2022 29% of total fossil fuel usage, -13% compared to 2022 Not achieved 76% (65%) -17% (-28%)
Water Using water responsibly	<ul style="list-style-type: none"> Chemical oxygen demand (COD) for a UPM average product, compared to 2008³⁾ Wastewater volume for a UPM average product, compared to 2008³⁾ Nutrients used at effluent treatment from recycled sources³⁾ 	<ul style="list-style-type: none"> -40% -30% 100% 	<ul style="list-style-type: none"> -39% (-39%) -7% (-13%) 33% (33%)
Waste Promoting material efficiency and circular bioeconomy – reduce, renew, reuse, recycle and recover	<ul style="list-style-type: none"> Process waste sent to landfills or to incineration without energy recovery 	<ul style="list-style-type: none"> 0 	<ul style="list-style-type: none"> 50% increase compared to 2022, 87% (90%) of UPM's process waste recovered or recycled
Product stewardship Taking care of the entire lifecycle	<ul style="list-style-type: none"> Climate-positive product portfolio Development of new products and services with contribution to the SDGs Share of applicable products eligible for ecolabelling out of UPM sales 	<ul style="list-style-type: none"> Continuous Continuous 100% 	<ul style="list-style-type: none"> Participation in GHG protocol pilot project for land-use guidance Sustainable product design concept used in several projects, tools developed further 89% (87%)

¹⁾ Covers all raw material spend including wood and wood-based biomass sourcing and excluding energy
²⁾ Forest management certification
³⁾ Relevant for pulp and paper production

⁴⁾ Covers UPM's own forests in Finland and UPM's land in Uruguay
⁵⁾ Relevant for Finland, based on year 2015

Responsibility focus area	Key performance indicator	2030 target	2023 result
SOCIAL			
Continuous learning and development Enabling continuous professional development for high performance, growth and future employability	<ul style="list-style-type: none"> Goal setting discussions are held and development plans are created for employees Employee perception of good opportunities to learn and grow 	<ul style="list-style-type: none"> 100% completion rate Clearly above benchmark 	<ul style="list-style-type: none"> 85% (83%) of employees completed individual goal setting or annual discussion, 81% (58%) of employees had a development plan documented In the Employee Engagement Survey average score of 64 (64). Below global average benchmark by 8 points.
Responsible leadership Emphasising value-based and inspiring leadership and integrity	<ul style="list-style-type: none"> Employee engagement 	<ul style="list-style-type: none"> Clearly above benchmark 	<ul style="list-style-type: none"> In the Employee Engagement Survey average score of 70 (70). Below global average benchmark by 5 points.
Diversity and inclusion Developing an organisational culture and workplace to ensure a diverse and inclusive working environment for business success	<ul style="list-style-type: none"> Employees' sense of belonging Continuous improvement in female representation in professional and managerial roles. Developing leadership and decision-making capabilities with increased diversity Diversity and inclusion initiative 	<ul style="list-style-type: none"> Among the top 10% of benchmark companies 40% female representation Continuous 	<ul style="list-style-type: none"> In the Employee Engagement Survey average score of 68 (68). Below top 10% benchmark companies by 12 points. 32.3% (31.4%) Continued dialogue on developing inclusive behaviours. Launched an Employee Resource Group (BeU) on the LGBTQ+ community. Implemented gender pay equity review process.
Fair rewarding Ensuring fair, equitable and competitive rewarding for all employees	<ul style="list-style-type: none"> Employees' pay meeting at least local living wage: implementing a yearly review Gender pay equity for all employees: implementing a yearly review process to identify and close unexplained pay gaps 	<ul style="list-style-type: none"> Continuous Continuous 	<ul style="list-style-type: none"> Company-wide review done and pay adjustments implemented to close identified pay gaps related to local living wage Company-wide review done and pay adjustments implemented to close identified, statistically significant and unexplained gaps related to gender
Safe and healthy working environment Ensuring the safety and health of our employees, contractors and the local communities close to our operations	<ul style="list-style-type: none"> Fatalities or serious accidents in UPM operations Total recordable injury frequency (TRIF), including contractors Process safety integrated in safety management Employees' sense of worklife balance Absenteeism rate 	<ul style="list-style-type: none"> 0 (continuous) <2 All sites and businesses Among the top 10% of benchmark companies <2% 	<ul style="list-style-type: none"> 0 (3) fatal accidents, 5 (5) serious accidents TRIF 6.1 (6.4) for UPM workforce and 5.2 (5.9) including contractors Process safety standard training and gap analysis conducted at the mills In the Employee Engagement Survey average score of 72 (70). Below top 10% benchmark companies by 7 points. 4.3% (4.5%)
Community involvement Ensuring local commitment and positive impact on communities	<ul style="list-style-type: none"> Assessment of quality of community relationships and define measures at relevant sites Long-term initiative(s) that impact their mill communities defined in line with the Biofore Share and Care programme 	<ul style="list-style-type: none"> Continuous All businesses (continuous) 	<ul style="list-style-type: none"> Assessment model developed and piloted in three business areas Supported learning and education initiatives in various mill communities and continued to support people affected by the war in Ukraine

The Biofore strategy guides us in achieving our responsibility targets for 2030 and contributes positively to achieving the UN Sustainable Development Goals (SDGs). We have selected six goals and, thereunder, 12 targets that are the most relevant for us based on where we can have the greatest effect, either by minimising our negative impacts or by increasing our positive impacts on people, societies and the environment. There are others that are also relevant to us, but to a lesser extent.



Goal 6:
Clean water and sanitation (Target: 6.3)



Goal 7:
Affordable and clean energy (Targets: 7.2 and 7.3)



Goal 8:
Decent work and economic growth (Targets: 8.2, 8.5 and 8.8)



Goal 12:
Responsible consumption and production (Targets: 12.2, 12.4 and 12.5)



Goal 13:
Climate action (Target: 13.1)



Goal 15:
Life on land (Targets: 15.2 and 15.5)

RISKS AND OPPORTUNITIES

The operating environment exposes UPM to a number of risks and opportunities. Many of them arise from general political and economic activity and global megatrends.

- Risks in the report of Board of Directors on page 133
- Sensitivity to carbon pricing is presented on page 142
- Main earnings sensitivities are presented on page 178
- UPM's cost structure is presented on page 179
- Main currency exposures are presented on page 210

CYCLICAL AND COMPETITIVE BUSINESS ENVIRONMENT



UPM's current product offering competes in markets where there are competing alternatives for customers and where the shifts in supply and demand continuously influence prices. Changes in production capacity, supply chain shifts, new product or raw material development, and competitor and consumer behaviour may impact the price levels for our products and main inputs, and cause demand fluctuations. Rapid acceleration in digitalisation and e-commerce may expedite the decline in demand for graphic papers and simultaneously increase demand for sustainable packaging products.

Management: Industry-leading balance sheet. Continuous improvement in competitiveness, resource efficiency and customer offering. Responsible operations. Business portfolio development.

Opportunity: Growing need and consumer preference for renewable and recyclable solutions create business opportunities and drive demand growth.

GEOPOLITICAL AND ECONOMIC UNCERTAINTY




Russia's war in Ukraine, the conflict in Gaza, continuing high inflation and interest rate environment, energy price volatility in Europe, rivalry between the US and China, as well as political uncertainties in several countries continue to cause uncertainty in trade policies, economic growth and the rule of law, and challenge competitiveness and predictability for companies with international value chains and operations in several countries. The testing relationships between businesses, governments and society and the growing international focus on military conflicts may stress the economic and political environment and cause local challenges to our operations or influence demand or input costs for our products.

Management: Monitoring through international trade associations. Compliance. Continuous improvement in competitiveness. Disciplined planning and selection of investments. Business portfolio development.

Opportunity: Diverse business portfolio, geographical presence and responsible business practices may present opportunities for supply chain optimisation or strategic opportunities (incl. M&A) in an economic downturn.

CLIMATE CHANGE




The transition to a low-carbon economy can cause policy changes and shifts in market preferences, standards, and technologies, which in turn may result in changes to cost structures or the commercial opportunities of biomass and change the competitiveness of products, raw materials, industries, and countries. The physical impacts of climate change include more frequent and severe extreme weather conditions, which can increase droughts, floods and forest fires and cause uncertainties in business operations. Damage caused by insects and tree diseases can become increasingly common.

Management: Long-term targets and science-based measures to mitigate global warming through sustainable forestry, emissions reductions and innovating novel products. Enhancing biodiversity.

Opportunity: Transition opportunities include those driven by resource efficiency and the development of new technologies, CO₂-free electricity, products and services that could bring new markets, customers, sources of funding and competitive advantage for us. Longer forest growing season in northern hemisphere.

CHANGES IN POLICIES, LEGISLATION AND STAKEHOLDER EXPECTATIONS



The rising concern of the cost-of-living crisis and the strain on natural ecosystems have intensified expectations for companies to deliver economic, social and environmental benefits and complement the actions of governments. Changes in regulation, taxation or subsidies could have an effect on our performance, competitiveness and the costs and availability of raw materials. Unpredictable and rapid changes in EU policies or local legislation may occur. Environmental regulations may continue to become more stringent. As policies, legislation or stakeholder expectations, or the application of them, change, additional costs in complying with more stringent requirements may be imposed on us.

Management: Responsible operations in the value chain enhance the ability to operate and influence long-term business success, including environmental management systems, sustainable forestry and compliance.

Opportunity: Creating value for society, as a company and through our renewable and responsible solutions, is an integral part of our strategy. The bioeconomy offers new opportunities for value creation and business growth.

EXECUTION OF STRATEGIC INVESTMENT PROJECTS



We invest in selective strategic projects to enable profitable growth. Investment projects are often large and may take several years to complete. They may also involve strategic, technical and operational risks. Our biochemical refinery project in Germany involves new technology and opens new markets for us. The high inflation and interest rate environment, price uncertainty of construction materials, and availability of skilled labour as well as bottlenecks in the global logistics and supply chains have added new challenges to large investment projects.

Management: Stringent and continuous operational planning, steering and supervision, quality control, input procurement, scheduling as well as resource and cost monitoring. Environmental, health, safety and social impact assessments and protocols. Stakeholder engagement.

Opportunity: Carefully selected and implemented growth projects improve our earnings and returns and change the positioning of the company.

INFORMATION TECHNOLOGY AVAILABILITY AND INCREASING CYBERCRIME ACTIVITY




Our business operations depend on the availability of supporting information systems and network services. Unplanned interruptions in critical information system services can cause disruptions to the continuity of operations. The information systems may be exposed to a cyber-intrusion that could cause leakage of sensitive information, violation of data privacy regulations, theft of intellectual property, AI-generated misinformation or disinformation, production outages or damage to reputation.

Management: We systematically maintain and further develop our measures for cybersecurity protection.

Opportunity: Sophisticated IT systems enable efficient operations and optimised performance, as well as new customer services and data security.

FINANCIAL RISKS



Financial risks include foreign exchange and interest rate fluctuations, challenges in refinancing, counterparty or credit risks or changes in taxes. Changes to the monetary policies of major central banks may significantly impact interest rates and consequently various currencies that directly or indirectly affect UPM. Our foreign exchange rate risk primarily relates to the US dollar, British pound sterling and Japanese yen.

Management: Continuous hedging of net currency exposure. Hedging the balance sheet. Continuous improvement in competitiveness. Disciplined planning and selection of investments. Business portfolio development.

Opportunity: Diverse business portfolio and geographical presence, focus on competitiveness and strong balance sheet may present strategic opportunities in a changing currency environment.

EMERGING RISKS

Artificial Intelligent (AI) -generated misinformation, disinformation or other adverse effects of AI technologies could erode trust of democratic processes, deepen polarised views and increase sophisticated cybercrime events.

Management and opportunity: Strong balance sheet. Maintaining and developing cybersecurity protection. Ensuring AI governance to unlock advantages of AI.

Biodiversity refers to the diversity and variation of species and ecosystems on our planet. According to the UN, and despite ongoing efforts, biodiversity is deteriorating worldwide. Our operations are widely linked with biodiversity, and most significant impacts on biodiversity arise from wood sourcing activities.

Management and opportunity: Global 2030 Forest Action Programme combines measures on climate, biodiversity, soil, water and social contribution. Biodiversity is instrumental in maintaining healthy forest growth.

INPUT PRICE FLUCTUATIONS ON THE MAIN RAW MATERIALS AND SERVICES




The main production inputs required in the manufacturing of our products are wood, fibre, chemicals, energy and water. The prices for many of these inputs have been volatile in recent years and are expected to remain volatile for the foreseeable future. Ongoing military conflicts, governmental protection, geo-economic rivalry, climate change, environmental policies and other governmental actions or restrictions, could continue to cause further uncertainty around the prices and availability of these inputs as well as logistics services.

Management: Continuously improving resource efficiency and supply chain optimisation and diversification. New technologies. Long-term supply contracts and relying on alternative suppliers. Selected ownership of forest land and long-term forest management contracts.

Opportunity: Circular economy, continuous improvement in resource efficiency and supply resilience to withstand price fluctuations offer competitive advantage.

OPERATIONAL HAZARDS, HEALTH AND SAFETY ISSUES AND BUSINESS INTERRUPTION



Our operations are exposed to risks arising from the environment, fires, natural events, machinery breakdowns, site security and occupational health and safety. A major incident at a UPM site or at a critical part of the supply chain could cause a shutdown or curtail production. Any failure to maintain high levels of safety management could also result in physical injury, sickness or liability to employees, contractors or third parties.

Management: We systematically maintain and further develop our management, safety, security and loss prevention programmes as well as insurance protection and business continuity. Development of process safety.

Opportunity: Industry-leading environmental performance provides competitive advantage. Health and safety performance strengthens engagement, efficiency and productivity.

OUR BUSINESSES

BUSINESS AREAS

- UPM Fibres - UPM Pulp.....38
- UPM Fibres - UPM Timber.....40
- UPM Energy42
- UPM Raflatac.....44
- UPM Specialty Papers.....46
- UPM Communication Papers.....48
- UPM Plywood.....50

OTHER OPERATIONS

- UPM Biorefining - UPM Biofuels.....52
- UPM Biorefining - UPM Biochemicals.....54
- UPM Biorefining - UPM Biomedicals.....56
- UPM Biorefining - UPM Biocomposites.....57



WHAT TRANSFORMING MEANS

We invest in sustainable growth. With the completion of our major projects, we produce more renewable and recyclable materials and more CO₂-free energy.



UPM FIBRES - PULP

FIBRES FOR THE FUTURE

UPM has built a world-class global pulp supply network originating from Uruguay and Finland.

OUR DIRECTION

- To grow with our customers
- To provide the most versatile pulp range, advanced technical service and a reliable long-term supply with undisputed commitment to sustainability
- To maintain cost-competitiveness through continuous operational improvement

OUR STRENGTHS

- Broad selection of sustainably produced pulp grades for a wide range of end uses
- Modern, efficient pulp mills and expert teams committed to grow with customers
- Industry-leading forest management and sustainable eucalyptus plantations

PLANNED ACTIONS FOR 2024

- Capture the full potential of our Uruguayan operations after the expansion
- Commercialisation of new pulp volumes from UPM Paso de los Toros
- Continue to improve cost competitiveness and operational efficiency of our Finnish pulp mills

KEY FIGURES 2023 FOR UPM FIBRES, INCL. UPM PULP AND UPM TIMBER BUSINESSES

SALES EURm	COMPARABLE EBIT EURm	COMPARABLE ROCE %	PERSONNEL on 31 Dec.
3,044 -13%	116 -80%	1.7 -8pp	2,775

> More key figures on page 129

UPM Fibres responds to the growing needs for responsible and renewable products as the global community works to reduce its dependence on fossil materials. Our pulp business serves its customers with sustainably produced eucalyptus, birch and softwood pulp grades for a wide range of end uses such as tissue, specialty and graphic papers, and board. Our timber business offers responsibly produced sawn timber and serves customers in the furniture, joinery, planing, construction and packaging sectors.

Room to improve

In 2023, global chemical pulp demand was solid. Destocking impacted pulp demand in China in the first half of the year, but

demand improved in the second half in line with positive developments in end-use markets. In Europe, pulp demand was weak. Pulp sales prices declined in all markets to the bottom-of-the-cycle levels after all-time highs in the previous year. Prices started to recover in the second half of the year.

In Uruguay, UPM's transformative growth investment in the new Paso de los Toros pulp mill was concluded successfully and the mill began running in April (page 24). In Finland, scheduled maintenance shutdowns were successfully conducted at the UPM Kymi and UPM Kaukas pulp mills. We continued the product mix development with an increased share of softwood in the Finnish pulp mills.

Sustainable demand outlook

Global megatrends drive long-term demand growth for pulp. The demand for pulp is driven by the growing Asian middle class, increasing disposable incomes and a rise in the use of tissue and hygiene papers as well as paper and board based packaging materials.

UPM is well positioned for growing pulp markets. The new UPM Paso de los Toros mill will place us among the world's leading pulp producers, serving global pulp markets with nearly six million tonnes of pulp.

Our strong position and sustainability across the forestry value chain in Uruguay and Finland enable our pulp business to grow and be competitive. Over the years, UPM has created in Uruguay a highly competitive industrial platform with two



SPOTLIGHT



EXCELLENT QUALITY

The new UPM Paso de los Toros pulp mill has reached high product quality ever since it was put into operation in April. The pulp manufactured at the mill is used by UPM's global customer base to produce tissue, specialty, printing and writing papers. Deliveries to customers started in May.

The mill reached technical readiness to start operations at the end of March. The actual start-up phase included many sub-processes, with production being gradually ramped up towards full nominal capacity. The Uruguayan environmental authorities approved all mill procedures, systems and technologies – a prerequisite for the mill being allowed to begin operations.

A huge amount of planning, skills and hard work has gone into completing the project, with up to 7,500 people from 60 countries working on the site at its height. The end result is a great achievement for the teams involved, and indeed everyone in the organisation.

We are inspired by the limitless opportunities offered by the bioeconomy.

world-class pulp mills, secure wood-supply from sustainably managed eucalyptus plantations and efficient logistics. The new pulp mill will also improve the competitiveness of the UPM Fray Bentos pulp mill.

In Finland, the increased share of softwood in the mills has strengthened the cost-competitiveness of the pulp product mix.

Solutions to mitigate climate change

Pulp is at the core of the bioeconomy. We are actively seeking new solutions for the full potential of biomass by developing and piloting fibre based and bio-streams growth concepts for our pulp mills in cooperation with research institutes. In doing so, we see clear synergies and advantages in having in-house businesses focusing on replacing fossil materials with renewable solutions, such as lignin based chemicals. Our mills in Finland and Uruguay also produce renewable energy for national grids.

> www.upmpulp.com

UPM FIBRES - TIMBER

SETTING THE STANDARD

UPM Timber strives to be a trendsetter in the responsible sawmill industry.

OUR DIRECTION

- To fulfil our ambitious vision of becoming a sawn timber industry leader in sustainability
- To enhance profitability through efficient wood supply, integrated production chain and focused commercial strategy
- Strengthening our position in chosen key markets and end-use segments

OUR STRENGTHS

- Fossil-free and efficient timber production
- Global sales and logistics network
- Securing the growth of forests – we always know the origin of our raw material

PLANNED ACTIONS FOR 2024

- Improve profitability of sawn timber business
- Continue to reduce emissions of the logistics
- Develop measures in accordance with our customer promise Setting the Standard

After a strong year in 2022, the sawn timber business faced challenges in 2023 due to the slowdown in the European economy. Market demand was weak due to low activity in the construction industry and market prices stood at low levels.

UPM made an investment decision to modernise the Korkeakoski sawmill. In 2025, new split saw technology will be introduced at the sawmill, which will significantly improve the efficiency and competitiveness of the sawmill by using the wood raw material even more efficiently.

UPM Timber’s sawmills have been fully powered by renewable energy since 2020. Since the second quarter of 2023, our sawmills’ internal logistics have also been fossil-free, as we have started to use only renewable diesel. We have also made our external logistics more environmentally sound, for example by using time charter LNG vessels, switching to renewable diesel for transport between the Seikku sawmill

and the Port of Rauma, and using longer and larger specialised HCT trucks to transport containers from the Kaukas sawmill to the port. We are also actively promoting the benefits of wood in the construction industry and encouraging the use of wood as a substitute for fossil-based materials.

> www.upmtimber.com

Setting the Standard: moving beyond fossils with sustainable timber.

In the long term, the demand for sustainable solutions for the construction and furniture industries will drive growth. Despite the challenging market environment in 2023, we continued to deliver on our customer promise, Setting the Standard, and focused on adding value for our customers in all market situations.



IN ACTION



Jukka Kinnunen

UPM TIMBER REDUCES EMISSIONS FROM LOGISTICS

In 2023, UPM Timber’s four sawmills switched to using only renewable diesel for forklifts and other heavy machinery in its internal logistics.

Emissions from the transport of sawn timber products have also been reduced. Since the beginning of 2023, trucks using renewable diesel have been transporting sawn timber from the Seikku sawmill in Pori to the Port of Rauma. The use of renewable diesel reduces CO₂ emissions by up to 90%.

In 2020, the Kaukas sawmill first started using larger special trucks to transport containers from the sawmill to the port. This has significantly reduced CO₂ emissions from transport. In 2023, according to the transport partner’s emissions calculator, emissions were reduced by up to 40% compared to the traditional method of transporting one container at a time.

UPM ENERGY

EXPLORING NEW OPPORTUNITIES

The energy transition requires CO₂-free electricity, flexibility and new innovations.

OUR DIRECTION

- Profitable growth in zero-carbon electricity generation
- Embracing the decarbonisation of society
- Capturing opportunities in energy transformation

OUR STRENGTHS

- Providing nuclear power for base load and hydropower for flexibility
- Strong track record in physical and financial electricity markets
- World-class expertise in the optimisation of power production and consumption

PLANNED ACTIONS FOR 2024

- Manage remarkable portfolio growth with OL3 nuclear power plant unit
- Continue exploring opportunities in Power-to-X and renewable energy
- New projects for the stream water programme

KEY FIGURES 2023

<p>SALES EURm</p> <p>628 -14%</p>	<p>COMPARABLE EBIT EURm</p> <p>182 -52%</p>	<p>COMPARABLE ROCE %</p> <p>6.0 -6pp</p>	<p>PERSONNEL on 31 Dec.</p> <p>81</p>
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> More key figures on page 129

UPM Energy's assets in CO₂-free electricity production combined with its expertise in optimisation and innovations make UPM an enabler of the green transition. We are actively exploring opportunities in the energy transformation.

UPM Energy is a major player in the Nordic electricity market. We produce competitive, CO₂-free hydropower in our own plants and through shareholdings, plus nuclear power through shareholdings. Our hydropower plants meet the growing demand for renewable energy and offer rapid adjustment to an electricity system in which flexibility in other production units is decreasing and weather-dependent solar and wind power are becoming increasingly important. Flexible hydropower balances

out the system in an increasingly volatile market, while nuclear power ensures reliable baseload capacity for the system.

The electricity generated is sold to the Nordic power market. We trade directly in physical and financial electricity exchanges. We have also increased our bilateral trade with external counterparties. UPM meets the different demands of the market by optimising our electricity consumption and production, thus balancing the grid.

Electrification will play an important role in moving society away from fossil-based energy sources. Demand for electricity is therefore expected to increase all over Europe. New transmission connections will increasingly link the Nordic electricity market to the continental European

market. UPM Energy is in an excellent position in a changing energy market with its CO₂-free electricity production. In 2023, we grew our capacity to produce emission-free electricity by almost 50% through Olkiluoto 3 (OL3). We are also actively exploring new possibilities arising from the transformation, such as the hydrogen economy.

Markets calmer, root cause remained

In 2023, the energy crisis in Europe calmed down but the root cause of the crisis remained. Russia's war in Ukraine is ongoing, and Central Europe is still working on finding ways to replace natural gas as an energy source. Electricity prices were still high in Europe and significant volatility in prices has become the new normal.

SPOTLIGHT



TRADITIONAL HYDROPOWER MEETS MODERN METHODS

Back in 2017, a group of UPM Energy hydropower experts brought together concepts under development and named the project Smart River. The project aims to build automated processes to make them work more efficiently.

Over the years, the project has expanded into eight different concepts, all of which involve some form of modern technology, digitalisation, artificial intelligence, the Internet of Things (IoT) and a lot of long-term development. In 2023, we specifically focused on developing the IoT inflow concept, whereby sensors were added to the nearby streams of hydropower plants to collect data on water inflow. The data is used, for example, to forecast inflows, especially during springtime floods when controlling water levels is difficult.

These concepts are applied to aspects such as trading, maintaining the hydropower plants, forecasting water flows and operating rivers in an optimal way.

Increased electricity supply and decreased demand led to significantly lower power prices in Finland. UPM Energy has succeeded in optimising production and creating value in a volatile market, but profits were not at the record highs compared to the exceptional year of 2022. Hydropower production volumes reached a good level and the beginning of commercial production at OL3 provided Finland with a steady base load.

The extensive renovation and modernisation of the Kuusankoski hydropower plant was completed in the spring. The plant's average annual energy production increased from 180 GWh to 195 GWh, producing more electricity with the same amount of water.

OL3 provides CO₂-free electricity

We are responding to the growing need for CO₂-free electricity as society electrifies and moves away from fossil fuels. The OL3 nuclear power plant unit by Teollisuuden Voima (TVO) began commercial production successfully in May 2023.

Our share of the new unit's production is approximately 500 MW through Pohjolan Voima's ownership. OL3 has significantly increased the supply of CO₂-free electricity

In 2023, we grew our capacity to produce CO₂-free electricity by almost 50%.

in Finland and now the Olkiluoto nuclear power plants meet 30% of Finland's electricity demand.

Research on water course continues

There are many unnecessary barriers for migratory fish in Finland, such as defunct dams, and biodiversity can be enhanced by removing them. UPM's stream water programme aims to dismantle 500 km of stream waters by 2030. By the end of 2023, we had dismantled 186 km of that goal.

In 2023, our programme funded an ongoing migratory fish research project on the Arvaja water course, where we completed a restoration project in 2022. UPM also funded the third and final stage of the Hiihtolanjoki project in southeastern Finland, dismantling the dam of the Ritakoski rapid and restoring the area (page 84).

> www.upmenergy.com

UPM RAFLATAC

ON GROWTH TRACK

We deliver long-term value in the attractive packaging materials value chain and are expanding our product portfolio to include new applications.

OUR DIRECTION

- Profitable organic growth, potentially complemented by acquisitions
- Expanding customer reach through commercial excellence
- Widening product portfolio with high-value-added and sustainable products
- Productivity improvement in everything we do

OUR STRENGTHS

- Safe and sustainable products for various end uses
- Global customer reach, delivery network and efficient supply chain
- Global-scale R&D and technical expertise
- Modern, strategically located production assets

PLANNED ACTIONS FOR 2024

- Continue with the Germany-based AMC integration
- Capture growth opportunities and expand product portfolio to new applications
- Continue new concepts in sustainability and the circular bioeconomy
- Continue to improve productivity

KEY FIGURES 2023

SALES

EURm

1,485
-25%

COMPARABLE EBIT

EURm

103
-52%

COMPARABLE ROCE

%

14.0
-17pp

PERSONNEL

on 31 Dec.

3,100

> More key figures on page 130

We create value for customers and brand owners with innovative and sustainable self-adhesive paper and film products for a wide variety of end uses. Our product and service offering, reliable supply chain and wide distribution network enable printers and converters to serve their customers effectively.

Executing our long-term strategy in a difficult market environment

The year 2023 was characterised by a historically unprecedented decline in market demand for self-adhesive labelling materials in Europe and North America. Destocking and low consumer demand impacted our business, and subsequent recovery and improvement started to be visible only towards the end of the year.

However, we managed to protect our performance by continuing with tight margin management, adjusting our capacity and resources to the lower market demand, and taking cost-reduction actions in all parts of the organisation. The headcount impact of these actions is 300.

Despite the challenges, we made substantial progress in executing our strategy. Our key achievements included:

- Expanding our sustainability services and SmartCircle wash-off product portfolio
- Developing new growth platforms including linerless and graphics solutions
- Successfully integrating the previously acquired AMC AG in Germany
- Opening a new state-of-the-art slitting and distribution terminal in Rosarito,

Mexico, allowing us to better serve our customers in North America

- Enhancing our digital customer reach

The long-term outlook for self-adhesive label materials remains positive and we are well positioned in growing and diverse end uses. While the market environment remains dynamic, our focus in the short term is to protect our performance and emerge even stronger as the markets normalise.

Leader in sustainable labelling

Driven by resource scarcity, climate change and tightening regulation, sustainability is a pivotal factor that will shape the packaging industry in the years to come. Labels might only constitute a small



SPOTLIGHT



LOOKING BEYOND THE LABEL

UPM Raflatac's Label Life service provides essential information on the environmental impact of our label materials using Life Cycle Assessment (LCA).

In 2023, UPM Raflatac received a new certificate of validity for the service from international assurance service provider DEKRA. The new certification lends credibility to the process of generating LCAs on a large scale, thus supporting customers and brands with greater assurance when making decisions and communicating about sustainability.

With the EU currently developing a digital product passport (DPP) for all products on the market, UPM Raflatac has designed its very own product passport prototype (PPP), an environmental declaration based on existing standards and validated by DEKRA. It includes several metrics that are broken down into life cycle stages: cradle-to-gate, transport-to-customer, printing, and end of life.

Label Life is available for over 90% of our commercial portfolio.

part of the packaging, but they can play a significant role in reducing a package's environmental footprint and optimising its recyclability.

In 2023, we expanded our wash-off portfolio with new paper label materials that enhance the recycling of PET and HDPE plastics. Our CarbonNeutral[®] certified products now cover the entire lifecycle of the label and enable our customers to prove that their printed and converted labels are carbon neutral. The development builds on our Life Cycle Assessment service, Label Life, which received a new certificate of validity from leading international assurance service provider DEKRA (on the left).

Our innovative Ocean Action label won the Sustainability Award at the Label Industry Global Awards 2023. The award recognises companies demonstrating progress towards a sustainable future for the global labels industry. The Ocean Action label is the world's first certified label material to fight ocean-bound plastic pollution.

We have developed our label waste recycling service further by selecting Soprema

We have reached our all papers certified target years ahead of time.

as our main partner in label waste recycling in the EMEIA region (Europe, the Middle East, India and Africa). The company now supports our RafCycle[™] recycling process by transforming label waste into new construction and insulation materials.

Our ambition remains to be the world's first label materials company to go beyond fossils. We published our first Climate Review to describe our progress on three key areas in 2022: forest and land, emissions and efficiency, and products and services. These areas form the backbone of our ambitious climate targets set for 2030. We managed to reach our target of 100% certified papers by the end of 2023, six years ahead of time.

> www.upmraflatac.com

UPM SPECIALTY PAPERS

VALUE FROM CO-CREATION

We innovate renewable and recyclable products that help to minimise society's dependency on fossil-based materials.

OUR DIRECTION

- A global leader in labelling materials
- The preferred partner for fine papers in the Asia-Pacific region
- Growth in selected flexible packaging applications

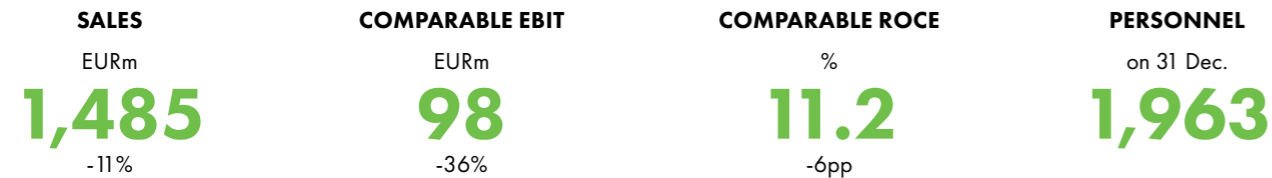
OUR STRENGTHS

- Sustainable alternatives to fossil-based materials
- Extensive expertise in technically demanding papers
- Recognised by customers as a reliable partner
- The ability to serve customers globally
- The ability to develop and co-create industrial scale solutions

PLANNED ACTIONS FOR 2024

- Focus on profitable growth
- Safeguard cost competitiveness
- Commercial success with co-creation partnerships and scaling up barrier papers

KEY FIGURES 2023



> More key figures on page 130

We provide high-performance materials for labelling and packaging. In the APAC region, we also offer fine papers. Our customer success is built on our customer focus, our well-defined product offering and our strong global presence and reach.

Year of unforeseen volatility

In 2023, our financial performance was challenged by the unstable market environment, as inventory build-up and release combined with changes in private consumption caused unforeseen volatility in the demand for specialty papers. In H1, our results were weak due to low volumes. In H2, our earnings improved from low levels. Despite the challenging market environment, we succeeded in margin and stock management.

Global demand for label papers, release base papers and packaging papers was soft, and sales prices decreased compared to the previous year. The recovery of the Chinese economy was slower than expected, impacting the growth in demand for fine papers. In H2, demand began improving both in China and in the rest of the Asia-Pacific region. The sales prices of fine papers decreased compared to the previous year.

In the long term, solid trends in demand are driving the growth of specialty papers. In 2023, we launched a new organisational setup with a strong development focus on commercial and digital competencies and on maximising global synergies across our organisation. We continued to scale up our previous growth

investments and prepared for the possible next steps in our growth strategy, which is driven by long-term growth for label and release liners, increased opportunities for sustainable packaging and Asian economic growth.

Co-creating fibre-based materials

With the packaging industry preparing for the EU's Packaging and Packaging Waste Regulation (PPWR), which aims to ensure that all packaging in the EU is reusable or recyclable by 2030, the demand for recyclable fibre-based packaging solutions is growing. We are continuously aiming higher in our commercial success with a broad range of versatile packaging papers and value-adding co-creation. With Fazer,



TRANSFORMATION STORY



FULLY FIBRE-BASED PACKAGING DEVELOPED WITH FAZER

UPM Specialty Papers and Fazer have co-created fully fibre-based packaging for Fazer's Oat Rice Pies. The new packaging reduces the use of fossil-based materials and improves recyclability while preserving the taste and food safety of the pies until their best-before date.

Previously, a paper-plastic laminate was needed to provide protection against moisture and grease and to heat seal the packaging. The new packaging solution is based on UPM Confidio™ barrier paper, which is heat sealable and can be used to package food. The paper works in Fazer's existing packaging processes and can be recycled in existing fibre recycling streams.

The packaging innovation was awarded the WorldStar 2024 by the World Packaging Organization, and ScanStar 2023. It also came second in the New Wood competition in the spring. Fazer's Oat Rice Pies are a traditional Finnish snack available in shops throughout Finland.

we have co-created a recyclable paper packaging for fresh foods (on the left). Fresh food products such as these have traditionally been packaged using plastics or paper-plastic laminates.

We have worked closely with partners from across the packaging value network to develop new fibre-based solutions. We have collaborated with chemical suppliers as well as packaging and printing machine suppliers, for example, to test and optimise our materials for existing machinery. Our long-standing relationship with the German company Henkel has resulted in a concept for recyclable, heat-sealable, grease-resistant packaging material.

OneBARRIER FibreCycle solution was announced as one of the winners of Packaging Europe's Sustainability Awards 2023. It is a ground-breaking paper-based high barrier solution for foods for a long shelf-life, providing an alternative to multi-layer plastic packaging that is difficult to recycle.

Our packaging papers offer fibre-based alternatives for a future beyond fossils.

Advancing a circular bioeconomy

UPM has set ambitious responsibility targets for 2030 (page 32). All of our products are designed to be recycled, helping brand owners and converters adapt to regulatory changes and meet their targets of prioritising sustainable materials. What's more, a large number of our packaging papers and label papers are now certified as industrially and home compostable.

100% of production waste streams are efficiently utilised, either recovered or recycled. UPM's goal is to reach zero waste to landfill or incineration without energy recovery by 2030.

> www.upmspecialtypapers.com

UPM COMMUNICATION PAPERS

DRIVING THE VALUE OF PAPER

We believe in paper and the future of the paper.

OUR DIRECTION

- Secure the future relevance of the paper business, focusing on sustainability
- Maintain a profitable leading market position while managing capacity
- Increase operational efficiency and ensure the quality of our products
- Operational and supply chain optimisation and digital solutions at the customer interface

OUR STRENGTHS

- Long-term commitment to graphic papers and the reliability of our supply
- The high quality of our products and services
- Extensive, thoroughly optimised production
- Responsible operations and traceable supply chain

PLANNED ACTIONS FOR 2024

- Drive customer value and develop product portfolio and partnerships
- Continue to drive sustainability of our offering and operations
- Continue to improve performance and productivity

KEY FIGURES 2023

<p>SALES EURm</p> <p>3,598 -26%</p>	<p>COMPARABLE EBIT EURm</p> <p>462 -25%</p>	<p>COMPARABLE ROCE %</p> <p>32.4 -9pp</p>	<p>PERSONNEL on 31 Dec.</p> <p>6,005</p>
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> More key figures on page 131

As one of the world's leading producers of graphic papers, we offer an extensive product range of papers for advertising and publishing, as well as for home and office use. We are committed to driving the value of paper as a unique and sustainable medium of trust, impact, learning and inspiration.

Safeguarding competitiveness

In 2023, we achieved solid results in a low-demand market environment. Demand for graphic papers in Europe was 24% lower compared to 2022. Margins were successfully protected by implementing cost containment measures and adjusting capacity to demand through permanent capacity closures and temporary layoffs. Market prices for all paper grades declined from

record highs in the previous year, especially in Europe.

Mature graphic paper markets require continuous efforts to ensure cost-competitive operations that also meet the profitable customer demand and provide good cash flow. We continued to align our production in line with the long-term market outlook. We reduced our capacity by 18% with annual fixed cost savings of approximately EUR 100 million. We permanently closed the UPM Plattling mill and PM6 at UPM Schongau, in Germany, as well as PM4 at UPM Steyermühl, Austria. Together with employee representatives, we focused on mitigating the impact of the closures for our employees, primarily through follow-up employment or partial retirement meas-

ures. Earlier in 2022, we signed an agreement to sell the UPM Steyermühl site to the HEINZEL GROUP. The new owner took over the responsibility for the site and the employees after the transaction was closed at the beginning of 2024.

Paper. Because it's real

The role of paper as a tangible medium and a record of civilisation is in rapid transformation. This is due to end user sustainability perceptions, digitalisation and changing customer behaviour, leading to a constantly evolving operating environment. We need to meet the changing needs of all our customers and actively drive the value of paper as a tangible media platform. Reliable partnerships with our customers to support



IN ACTION



REPLACING FOSSIL FUELS WITH ELECTRIC BOILERS

We are electrifying heat and steam production at our paper mills in Finland and Germany. Eight electric boilers will replace the use of fossil fuels, primarily natural gas, peat and oil.

In Finland, the new electric boilers can reduce CO₂ emissions from the use of fossil fuels by about 50,000 tonnes every year. In Germany, in addition to reducing emissions, electric boilers will also improve the security of supply for heat and steam generation.

The electric boilers will also secure the steam supply for paper and pulp mills in other fuel shortage situations, such as in the event of gas shortages. Electric boilers will significantly increase the mills' ability to provide demand-side flexibility to balance the electricity system and market. Taking advantage of periods when electricity prices are low will also result in significant cost savings for us.

their business performance continued to remain high on our agenda.

We believe that paper has an essential and enduring role in creating prosperity, opportunities and wellbeing for people, businesses and societies.

The recent Two Sides Trend Tracker survey (polling 10,000 consumers in 16 countries), carried out every two years, found that European consumer preference for printed materials has recovered since the pandemic. According to Two Sides, a majority of European consumers prefer to read printed books (65%) and printed magazines (51%). The preference for printed magazines represents a significant change, up from 35% two years earlier.

Solution for reducing emissions

Our focus is to bring UPM closer to the 2030 target of reducing CO₂ emissions from fuels and purchased electricity by 65%. We have taken actions to reduce emissions whilst contributing to the wider

We are a reliable, quality focused and sustainable long-term partner.

transition towards renewable energy by installing new electric boilers across our paper mills in Finland and Germany. By improving the efficiency of on-site heat generation systems, the new electric boilers can simultaneously lower energy costs, secure heat supply and increase the mills' ability to provide demand-side flexibility to the electricity system and markets. This makes the electric boilers a valuable tool not only for the mills at a hyperlocal level but also for the grid at a national level, by balancing supply and contributing to grid security (on the left).

> www.upmpaper.com

UPM PLYWOOD

TRUSTED SUPPLIER

As a trusted supplier of high-quality plywood products made of sustainably grown and sourced wood, we have set our responsibility standards high.

OUR DIRECTION

- Create value for our customers by providing a superior customer experience and supporting their decarbonisation targets
- Maintain cost competitiveness and prerequisites for long-term business performance
- Evaluate future growth and renewal opportunities

OUR STRENGTHS

- End use, market, and customer insight
- Leader in supply reliability with consistent fit to purpose quality
- Trusted supplier in demanding end-use segments
- Carbon-storing products and the strongest brand on the market: WISA®

PLANNED ACTIONS FOR 2024

- Enhance customer and employee experience via new digital services
- Support authorities to fight against unfair competition
- Execute further steps on our CO₂ reduction roadmap
- Maintain efficient margin management

KEY FIGURES 2023



> More key figures on page 131

We manufacture high-quality WISA® plywood and veneer products from sustainable sources for construction, vehicle flooring, LNG shipbuilding, parquet manufacturing and other industrial applications. Plywood can replace many substances that are made from non-renewable raw materials, such as aluminium, concrete and steel.

Managing margins

In 2023, our earnings decreased from the record levels in the previous year. We were able to manage our margins well in the low-volume environment. Our sales prices increased and offset the impact of higher variable costs. Demand for spruce plywood and veneer declined due to lower activity in the renovation and construction industry.

Demand for birch plywood in panel trading and industrial applications was good in the first half of the year but moderated towards the end of the year.

The European birch plywood balance was impacted by the leakage of illegal Russian plywood to Europe. The EU has imposed sanctions on the import of Russian-origin wood and wood products due to the ongoing war in Ukraine. Together with other European market operators, we have actively supported authorities for stopping illegal imports and preventing unfair competition throughout the entire value chain (on the right). In 2023, we completed the withdrawal of our businesses from Russia by selling the Chudovo plywood mill.

In 2023, we renewed our organisation

in Finland as well as our sales offices, and adjusted our operations to meet reduced production capacity and the deteriorating market situation. In connection with this, we developed our operating model to better support the company's current strategic focus areas, create value to our customers and utilise the opportunities brought by digitalisation.

Building future with plywood

Our products store carbon and can replace fossil-based materials in construction, vehicles and other applications. The popularity of plywood has grown even more with the growing attention paid to the climate impact of materials. In many European countries, construction laws are changing, and new laws set requirements for the



We deliver responsibility to our customers through our products and services.

IN ACTION

UPM PLYWOOD TAKES ACTION TO PREVENT UNFAIR TRADE

Imports of birch plywood from Türkiye and Kazakhstan have surged since anti-dumping duties and EU sanctions against Russian products came into force. The European Commission is investigating the suspected evasion of EU anti-dumping regulations regarding imports of Russian birch plywood. The Commission aims to determine whether imports to the EU truly originate from these countries, neither of which has been recognised as a significant producer of birch plywood.

Illegal imports distort the market by damaging ethical European plywood manufacturers, retailers and end users. UPM Plywood is collaborating with the Woodstock Consortium, a platform of leading European birch plywood producers, to support the EU authorities in their investigation.

Despite the sanctions, Russian and possibly Belarusian birch plywood is still being imported into the EU using various techniques. The EU takes a strong stance on breaches of sanctions orders and all imports of birch plywood must now be registered upon entering EU borders. The best way to fight illegal imports and unfair competition is to stay vigilant and react strongly to illegal use.

low-carbon and lifecycle characteristics of buildings. As buildings' energy use shifts to low-carbon forms of energy, there will be an emphasis on the importance of materials. WISA plywood meets these tightening requirements brilliantly.

In 2023, we finalised our EUR 10 million investment in the overlaying line at our plywood mill in Joensuu, Finland. The investment strengthens the mill's competitiveness and ability to serve customers as well as ensure the highest plywood quality for vehicle flooring. Our updated vehicle flooring panel WISA-Trans Mk2 with a new surface pattern is a great example of a product from this new overlaying line.

Growing market demand continues to represent a growth potential far into the future in other demanding industrial applications, such as the insulation elements of LNG tankers carrying liquefied natural gas, which plays an increasingly important role in the global energy mix. As a global market leader, more than 50% of all LNG ships around the world today are already insulated with WISA plywood. Drewry forecasts that the LNG fleet will expand at a CAGR of 8.5% between 2023 and 2028, driven by a buoyant trade outlook, increasing investments and boosting demand for modern

tonnage. Tight shipbuilding capacity will strengthen the price of newbuilds, which will restrain fleet growth.

Tangible decarbonisation

The environmental impact of products is an increasingly important selection criterion in construction and industry. The Environmental Product Declarations (EPD) for WISA birch plywood products provide researched information on the environmental impact of product manufacture and estimates of the environmental impact of the entire lifecycle of the product in the construction industry. EPDs are currently voluntary for product manufacturers, but their importance is growing as construction requirements become stricter. UPM Plywood has published product-specific EPDs for WISA plywood since 2019. This information can be used to calculate the carbon footprint of buildings.

We have continuously taken active steps to reduce CO₂ emissions in our plywood production. In purchased electricity, our aim is to achieve zero CO₂ emissions in our plywood mills by 2024.

> www.wisaplywood.com

UPM BIOREFINING - UPM BIOFUELS

GREEN GROWTH WITH ADVANCED BIOFUELS

Our products meet the need to reduce transport emissions and find renewable alternatives to the production of various fossil-based plastics.

OUR DIRECTION

- Unique, more sustainable, advanced biofuels and biomaterials in numerous markets and segments
- Expanding the biofuels product portfolio and business

OUR STRENGTHS

- Established producer of renewable diesel and naphtha
- Sustainable bio-based alternative to fossil feedstock in the petrochemical industry
- Advanced biofuels belong to the highest sustainability class of biofuels

PLANNED ACTIONS FOR 2024

- Continue the basic engineering of a planned next-generation biorefinery in Rotterdam
- Assess the growth opportunities and new sustainable feedstocks

Our renewable and sustainable biofuels help to mitigate climate change. Advanced biofuels reduce greenhouse gas emissions by more than 80% compared to fossil fuels. In addition to decarbonising road transportation, we help to defossilise various other industries by offering wood-based naphtha.

Naphtha is the major raw material for most chemicals and plastics. UPM BioVerno™ naphtha is a drop-in solution for replacing fossil-based naphtha allowing the production of sustainable chemicals and plastics. Our strategy is based on proprietary technology and UPM’s integrated feedstocks.

Focus on market fundamentals

In 2023, demand for advanced biofuels was good and markets continued to benefit from a dedicated and compulsory mandate for advanced biofuels based on EU-wide rules. Simultaneously, European biofuels markets faced uncertainties due to economic slowdown and increased imports of biofuels labelled as advanced from China.

The longer term effect of Chinese imports remains uncertain.

Input costs remained at a high level. Crude tall oil (CTO) markets continued to tighten due to the increased replacement of fossil fuels and stronger competition. In the first half of the year, the turnaround shutdown impacted production rates at the UPM Lappeenranta Biorefinery. In the second half of the year, production levels were good and production efficiency improved after the shutdown.

Green growth opportunities

UPM aims to become a major European player in the production of advanced biofuels. Markets continue to grow and be driven by climate targets. According to estimates, around 30% of fossil-derived fuels used for transportation in the EU could be replaced with advanced biofuels by 2050.

Further growth in advanced biofuels plays an important role in UPM’s Biofore strategy (page 23). We are currently conducting the commercial and basic engineering study for a next-generation biofuels

refinery in Rotterdam, the Netherlands. The new potential biorefinery would produce high quality renewable fuels, including sustainable aviation fuels, and raw materials for the petrochemical sector, for example in bioplastic applications. In 2023, UPM Biofuels initiated proceedings to qualify its renewable fuels as sustainable aviation fuel.

Our current feedstock for biofuels in the UPM Lappeenranta Biorefinery is crude tall oil, which is a residue from pulp production. In our plans to increase production of advanced biofuels, we are also considering other residue streams and by-products of the forest industry. The planned biorefinery in Rotterdam would enhance material efficiency without compromising global food production.

In the future, the path to defossilisation in different transport sectors will increasingly rely on renewable synthetic fuels. Our extensive know-how and experience in biorefinery operations not only gives us a competitive edge but also opens up growth opportunities in the realm of green hydrogen solutions (page 91).

TRANSFORMATION STORY



BEAUTY INSIDE OUT

Finnish cosmetics company Lumene has launched a moisturiser packaged in a bio-attributed* jar. The jar utilises a wood-based plastic raw material made from crude tall oil, a residue from pulp production. It is reportedly the first cosmetics jar that contains renewable materials in both the packaging and the label.

The new jar reduces the use of fossil-based plastics by more than 60 tonnes a year and lowers the product’s CO₂ emissions. The 50 ml jar is the company’s most used packaging, with 1.5 million units sold annually.

LUMENE’s recyclable moisturiser jars contain wood-residue-based UPM BioVerno™ naphtha, which is further processed by the chemical company SABIC. The labels are made from UPM Raflatac Forest Film™ label material. All parties in the supply chain have ISCC PLUS sustainability certification.

One of the best ways to reduce the use of fossil materials is to work together in the value chain. The new 97% bio-attributed LUMENE jar, based on a mass balance approach*, is one way to reduce the use of fossil-based plastics.

* Mass balance accounting is used to trace the flow of materials through a complex value chain. It provides a set of rules for allocating the bio-based content to different products in order to claim the content as "bio-attributed".



Towards 2030

UPM’s advanced biofuels belong to the most demanding sustainability category of the Renewable Energy Directive (RED II and forthcoming RED III), which includes residues from agricultural and forestry activities. Our UPM Lappeenranta Biorefinery, with an annual capacity of 130,000 tonnes, is the largest advanced biofuels-only refinery in the EU.

The newly adopted RED III Directive includes an increased target for advanced biofuels in the transport energy mix in

Our wood-based advanced biofuels mitigate climate change.

Europe by 2030, reflecting a considerable increase on today’s production capacity and creating significant opportunities for new investments.

> www.upmbiofuels.com

UPM BIOREFINING - UPM BIOCHEMICALS

RAMPING UP NEW BUSINESS

The world's first industrial-scale wood-based biochemicals biorefinery has moved into the commissioning phase, while commercial success is building towards a successful start-up at the end of 2024.

OUR DIRECTION

- Establish biochemicals as a widely accepted category of renewable solutions
- Open new end-use markets for UPM, with large growth potential for the future
- Successfully launch the business to scale
- Leverage the unrivalled sustainability value to generate strong results

OUR STRENGTHS

- Unique and innovative technology concept
- Sustainable, certified feedstock
- High-quality products for plastics, textile and rubber applications, as well as industrial liquids, with a sustainability focus that sets us apart
- Very positive brand image for many consumer products in packaging, automotive, textiles and other industrial segments
- A robust, scalable business platform

PLANNED ACTIONS FOR 2024

- Site completion and gradual start-up of the biorefinery
- Complete team set-up and training to ensure a safe and effective start-up
- Close commercial agreements to sell production
- Develop additional RFF product applications and build commercial pipeline
- Optimise the sustainability performance of the product portfolio
- Further strengthen feedstock sustainability

Global brands deepen their sustainability promises to consumers and market CO₂-optimised products while embracing increased supply chain sustainability. UPM Biochemicals will be well positioned to provide renewable chemicals made from sustainable wood with a CO₂- product footprint that is considerably below that of fossil-based chemical products and credibly documented by our third-party-reviewed LCA. Our proposition to help brands defossilise their products has gained further traction in the market and has triggered widespread support across our key markets.

The main civil works of the world's first industrial-scale wood-to-chemicals biorefinery in Leuna, Germany were completed in 2023 and commissioning will be gradually concluded during 2024. The relevant German authorities granted the preliminary licence to operate in 2023 – a big milestone towards start-up. The total cost of the biochemicals investment project is estimated at EUR 1,180 million.

The biorefinery will convert solid wood into next-generation biochemicals: bio-monoethylene glycol (BioMEG) and Renewable Functional Fillers (RFF). The biorefinery will also produce bio-monopropylene glycols (BioMPG) and industrial sugars. The total annual capacity of the biorefinery will be 220,000 tonnes.

The feedstock sourcing network has grown further, and we are continuing to close strategic partnerships to secure a stable flow of certified sustainable beechwood. Our active role in shaping the German and European policies on biomass-based materials has triggered government endorsement and is actively enabling commercial opportunities.

Positive market response and first product sales

Markets are responding very positively to our new products as we have further stepped up our sales and marketing. This shows in proactive endorsement through global consumer brands and a series of

development partnerships in globally lead markets for sustainable chemicals.

We finalised distribution agreements for our lignin-based Renewable Functional Filler (RFF) and advanced application development to qualify RFF for applications in the automotive, fashion, building and plastics industry.

With the acquisition of German-based SunCoal Industries, we strengthened our technology portfolio for lignin-based rubber solutions and increased our process and product know-how by adding an innovative team of experts.

European Rubber Journal renewed their endorsement of UPM BioMotion™ Renewable Functional Fillers as the most important sustainability project in the elastomers and rubber industry.

For our renewable bio-monoethylene glycols (BioMEG), UPM BioPura™, we extended our development partnership with Dongsung, the leading glycols manufacturer and seller in the Korean market and one of the region's biggest materials suppliers of

TRANSFORMATION STORY



THE FUTURE OF FABRICS

UPM Biochemicals and German outdoor apparel supplier VAUDE will produce outerwear made from bio-based chemicals.

The textile industry has long been looking for more sustainable solutions for producing polyester and polyurethane, as around 60% of all materials used in the fashion industry are made from fossil-based polymers. Polyester is the world's most widely used fibre. Yet only 15% is currently derived from recycled feedstock.

In the partnership, the fossil-based MEG component of the resin used to make polyester is replaced with UPM BioPura™ bio-monoethylene glycol. The material can be used directly in the existing production process.

Sustainable innovations require collaboration across the value chain. In Germany, chemical company Indorama Ventures first polymerises and spins the polyester yarn, then in Prato, Italy, textile manufacturer Pontetorto processes the yarn into a new polyester fabric that VAUDE uses to make the final garment.

global footwear brands. We also realised the first product sales with Dongsung and Brenntag, the world's leading chemicals distributor, confirming the value expectations in our BioMEG.

A successful co-operation partnership with the German outdoor and performance wear brand VAUDE was met with significant public and consumer interest. We jointly launched the world's first polyester fleece jacket, containing 30% renewable content with our BioPura™ BioMEG (on the left).

The transformative character of our investment was highlighted by UPM Biochemicals winning the prestigious Independent Commodity Intelligence Services (ICIS) Best Process Innovation from a Large Company Award and the International Textile Manufacturers Forum's (ITMF) Sustainability and Innovation Award.

Towards production start and commercial ramp-up

The building site is busy with more than 1,400 contractors finalising the project,

We accelerate the transition to a circular bioeconomy with our products.

with a heavy focus on piping and electrification and automation. The future operations team is trained and starts taking ownership of the processes, actively driving commissioning and start-up preparations.

With all critical materials sourced, contractor relationships tested and proven, and a firm grip on the timeline, we are confident to start up the first units of the Leuna biorefinery. To support a ramp-up from 2025 onwards, we put in place efficient sourcing and supply chain operations and agreed the relevant partnerships to enable efficient production and distribution of our products.

➤ www.upmbiochemicals.com



UPM BIOREFINING - UPM BIOMEDICALS

ADVANCING INNOVATIONS

UPM Biomedicals is at the forefront of innovation, with a particular focus on sustainable biomaterials for life science and clinical applications.

PLANNED ACTIONS FOR 2024

- Scale up the GrowDex® business
- Continue to scale up the technology for cell-based liver models in collaboration with AstraZeneca and the Karolinska Institute in Sweden (two-year trial)
- Continue geographic expansion of the FibDex® business
- Continue clinical investigation on patients with superficial dermal burns
- Develop a medical grade hydrogel for new clinical applications

UPM Biomedicals develops and supplies innovative and sustainable wood-based products for medical and life science applications. The main component in our products is nanocellulose, refined from birch wood. All products are animal-free.

We actively collaborate with universities, research centres and key industrial partners in the fields of high-throughput drug screening, personalised medicine, cell therapies, 3D bioprinting, tissue engineering and advanced wound care.

In life sciences, our main products are GrowDex®, a range of hydrogels for 3D cell culturing, GrowInk™ a range of bioinks for 3D bioprinting and GrowDase™, an enzyme to release living cells from the gel. The nanocellulose ensures excellent compatibility with even the most demanding cells, such as stem cells and patient-derived cells. We also continued to study the use of GrowDex® in a cell-based model of a liver. Liver models are used to test the toxicity of almost every new pharmaceutical candidate. The mini-livers and other mini-organs are grown in our own cell laboratory in Helsinki. In 2023, we opened a new sales office and cell laboratory in Basel, Switzerland. In 2023, we continued to supply nanocellulose

to Cellink and signed a distribution agreement for GrowInk™ bioinks with Brinter.

GrowInk™ is a range of bioinks for 3D bioprinting used in areas such as cancer research, where models of tumours can be printed to test their response to different treatments. The ultimate goal is to print organs or tissues that could, in the future, be transplanted into patients.

In the clinical field, many Finnish healthcare professionals and hospitals in the Nordic countries already use our CE-marked FibDex® wound dressings for skin graft donor sites. The one-time applicable products were also successfully piloted with good wound healing results in selected university hospitals in Germany. In 2023, we started the clinical investigation for superficial dermal burns at Uppsala University Hospital in Sweden.

> www.upmbiomedicals.com

UPM BIOREFINING - UPM BIOCOSMOS

BEST IN CLASS

UPM Biocomposites is creating circular economy solutions through the manufacture of innovative composite materials and decking products. The materials are based on our own R&D.

PLANNED ACTIONS FOR 2024

- Raise awareness of the unique UPM ProFi recycling-based and UPM Formi fossil-substituting solutions
- Continue to focus on cost efficiency and competitiveness
- Grow with UPM Formi in chosen end-uses
- Seek new customers for UPM ProFi decking solutions in the main central European markets
- Continue actions to reduce carbon footprint in raw materials, energy consumption and logistics

UPM ProFi uses European post-consumer plastic waste and post-industrial label waste to manufacture high-quality composite decking. The label production side streams come from UPM Raflatac and its customers, with the waste being collected and delivered

to Germany where the composite decking is manufactured.

The UPM ProFi Piazza product range is made with up to 75% recycled materials and offers best-in-class performance. We are a member of the EU Circular Plastics Alliance, which aims to increase the EU market for recycled plastics to 10 million tonnes by 2025.

Demand for UPM ProFi products declined in 2023, with consumer and renovation/construction uncertainty being reflected in sales. At the same time, competition in the main markets intensified owing to imports from outside Europe. A storm in August broke the roof of the Bruchsal mill, and production did not restart until November.

UPM Formi creates and manufactures wood-based biocomposites, enabling the carbon footprint of the end product to be reduced by up to 80% compared with similar products made from fossil-based mate-

rials. The composite materials are suitable for various end uses, including kitchenware, personal care and acoustic devices. Products comply with food safety standards and other similar quality requirements.

In 2023, the new organ's facade pipes are made of wood-based UPM Formi 3D biocomposite at the Helsinki Music Centre (page 61).

As an example of material efficiency, we introduced new trays made of UPM Formi composite to Finnish ABC service stations (page 98). In 2023, the European Food Safety Authority re-evaluated the safety of wood-based fibres in contact with food and made its criteria more stringent. UPM takes the safety of its products seriously and is compliant with the updated regulatory requirements.

> www.upmprofi.com

> www.upmformi.com

OUR RESPONSIBLE WAY OF OPERATING

CREATING VALUE FOR PEOPLE AND SOCIETY

- Active dialogue with stakeholders 60
- Engaging employees 64
- Diverse and inclusive working culture 68
- Safety first 70
- Advancing human rights across our businesses 72
- Committed to compliance 74
- Ensuring a responsible supply chain 78
- Contributing to society through taxes 80

ACTIONS FOR ENVIRONMENT

- Climate-positive forestry 82
- Enhancing biodiversity 84
- Committed to climate actions 86
- Towards fossil-free energy 88
- Responsible water management 92
- Advancing a circular bioeconomy 94
- Sustainable product lifecycle 98

OUR SOCIETAL AND ENVIRONMENTAL IMPACTS 100



WHAT TRANSFORMING MEANS
 Responsibility is at the core of everything we do. We have ambitious, science-based sustainability targets and we take concrete steps to achieve them.
www.upm.com/responsibility



CREATING VALUE FOR PEOPLE AND SOCIETY

ACTIVE DIALOGUE WITH STAKEHOLDERS

Understanding the views and expectations of our stakeholders plays a crucial role in the success of our company and the acceptability of our operations.

The impact of UPM's operations extends from the local level to wider society. We aim to provide a fact-based, balanced view of the economic, environmental and social aspects of our business activities. Active and open dialogue with our stakeholders provides valuable input for our development efforts.

Providing stakeholders with a clear picture of our future

Our goal is to provide our stakeholders with a clear picture of what our future course is, how we implement our Biofore strategy and how we create long-term value for our stakeholders. We disclose relevant and accurate information in accordance with market regulations.

Many stakeholder events were organised in 2023. Because many of our stakeholders view UPM primarily as an economic operator, financial success, stability, good governance, future outlook and growth were the key themes discussed. Numerous discussions were focused on forests and the current energy crisis in Europe.

Stakeholder mapping, active dialogue and the systematic gathering of feedback play an essential role in our stakeholder relations work. We analyse feedback carefully to understand the expectations of our stakeholders. We then take these expectations into consideration during our development work and decision-making. We received approximately 350 (300) enquiries or concerns from the general public in 2023.

Every year, we conduct a materiality analysis (page 63) that highlights the topics on which UPM has a significant impact or which have a significant impact on the

IMPACT

- Stakeholder engagement provides predictability and a competitive advantage
- Continuous dialogue improves the understanding of key risks, challenges and opportunities in the operating environment

TARGET

- We understand stakeholders' need for information and expectations for UPM, and consider stakeholders in strategic development and decision-making processes

company. The analysis is based on internal assessments as well as the interests and concerns of stakeholders.

Green transition high on the policy agenda

Through public affairs work, we aim to foster the necessary prerequisites for our operations, particularly in our main operating countries Finland, Uruguay, Germany and China. Active influencing at the EU level is also important.

Our public affairs activities are based on our Biofore strategy and complement our Beyond fossils purpose. They are also aligned with the Paris Agreement. Public affairs are led by EVP, Stakeholder relations, who is a member of the Group Executive Team. We also have topic specific steering groups where our public affairs activities are steered, and these topics are reviewed in the Group Executive Team regularly.

OUR WAY

- We engage in active dialogue with our stakeholders to discuss our operations and targets
- The UPM Code of Conduct sets the standards for responsible behaviour and collaboration
- We measure stakeholder engagement by several indicators
- Stakeholder relations are coordinated globally at Group level, while businesses are responsible for continuous dialogue with customers and business partners, as well as local communities

We cooperate with a number of trade associations, the most important being the Finnish Forest Industries Federation (FFIF) and the Confederation of European Paper Industries (Cepi).

As we enter into new businesses, we also need to find new ways and forums for co-operation. For example, UPM is a founding member of the Advanced Biofuels Coalition in the EU and also a member of the European Chemical Industry Council (CEFIC).

Our company is also represented in several trade associations decision-making bodies, so we can influence and monitor the positions for being aligned with our strategy. Basic requirement for membership in any trade association is the principal alignment with UPM's strategic positions.

2023 continued to be challenging for decision-makers and politicians as a result of Russia's war in Ukraine. The impact on the supply and price of energy especially

during the autumn of 2022 led to decisions on temporary market measures, which were implemented in 2023. As UPM is an active energy market participant, both as an energy intensive consumer and as an energy producer, we reminded decision-makers of the importance of functioning energy markets.

Climate change mitigation and our commitment to the UN's 1.5-degree agenda continued to garner a lot of interest among our stakeholders. Discussions were held with environmental organisations, certification bodies, authorities and decision-makers. The climate impact on forests is linked to policies on land use, land-use change and forestry (LULUCF). We have highlighted the importance of sustainable forest management and manufacturing products from renewable raw materials that replace fossils as effective ways to mitigate climate change.

The EU's Fit for 55 package proposal was published in 2021 and during 2023 both the European Parliament and the EU member states continued to finalise the

changes to ensure that the EU climate and energy legislation is in line with the EU's climate targets.

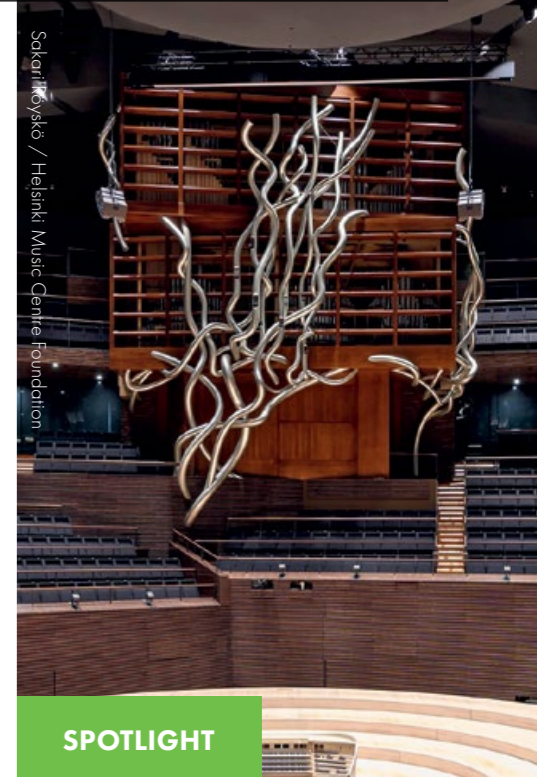
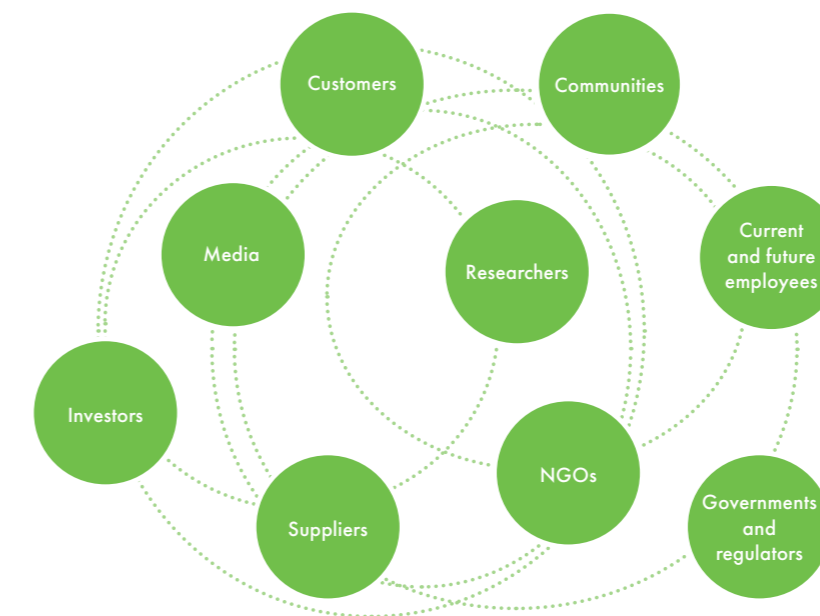
We actively promote the cost-competitive and consistent implementation of climate change policies. UPM calls for predictable regulations that enable green growth investments and further transformation beyond fossils. Therefore, EU policies must ensure sustainable forest use and the availability of wood as a key resource for the circular bioeconomy and green growth.

Responsibility at the core

Our steadfast commitment to sustainability was recognised with the highest possible platinum score in the EcoVadis responsibility assessment. We continued active participation in the UN Global Compact initiatives and also chaired the Global Compact Finland Network. We also joined the UN Global Compact Forward Faster initiative which aims to accelerate the progress of UN's Sustainable Development Goals. UPM's Faster Forward commitment is related to gender

OUR MOST IMPORTANT STAKEHOLDERS

Our Biofore strategy forms the foundation of our stakeholder dialogue. The key focus areas and activities vary locally and according to stakeholder needs. Key stakeholders are defined on the basis of materiality: UPM's operations have a significant impact on stakeholders and/or vice versa.



Solarii Kosyako / Helsinki Music Centre Foundation

SPOTLIGHT

A NEW ORGAN AT THE HELSINKI MUSIC CENTRE

In autumn 2023, the Helsinki Music Centre concert hall received a new modern organ, one of the largest in the world. The hand-built Rieger concert hall organ weighs 40 tonnes and consists of around 10,000 handmade metal and wooden pipes. Some of the wind lines that traditionally run inside the organ have been made visible. The curved elements of the façade consist of both sounding pipes and wind lines.

The facade's sounding pipes and wind lines are made of wood-based UPM Formi 3D biocomposite. The material developed by UPM is suitable for end-use applications that require acoustic, sound-absorbing properties. Altogether, the organ has some 260 metres of 3D biocomposite pipes.

The project, which began in 2021, was also funded through a fundraising campaign by the Helsinki Music Centre Foundation. UPM is one of the donors through the company's Biofore Share and Care programme.

The money from the campaign will be used to produce organ music, organ repertoires and events. The instrument, which cost EUR 4.4 million, was inaugurated at a celebration concert on 1 January 2024.

equality, living wages and the ambitious net-zero emissions target (page 30).

We continued our co-operation with different stakeholders on responsibility issues on a voluntary basis, addressing themes such as ecolabels, fish migration, living wages, fair rewarding and nature conservation. We also received criticism of our operations in Finland and Uruguay from some stakeholders (page 31).

Our Forest Action Programme, published in 2022, will run until 2030 (page 82). As part of the programme, we collaborated with the Finnish Osprey Foundation and Vida Silvestre in Uruguay.

We were an active international stakeholder member of the PEFC (Programme for the Endorsement of Forest Certification, PEFC/02-44-41) and participated in the development of the PEFC forest certification system, reflecting our aim to promote sustainable forest management globally. In Finland, we participated in updating the forest management standards in both the FSC™ (Forest Stewardship Council™, FSC™ N003385) and the PEFC schemes.

Responsibility issues were also raised in customer enquiries, with product safety, sustainable forest management and climate change as key themes. Globally, we continued active co-operation with local permit authorities.

Emphasis on local communities and impacts

Our mills in Europe, the US and Uruguay have the potential to be some of the biggest employers and taxpayers in the locations where they operate. In Uruguay, we built a second pulp mill in 2019–2023. The UPM Paso de los Toros pulp mill began its operations in central Uruguay in mid-April and the mill opening ceremony, attended by many stakeholders, took place in June 2023. Stakeholder engagement around the project has been active throughout the entire project.

We aim to engage and hold open dialogue with local communities. For example, the UPM Fray Bentos mill arranges regular visits of the mill, and our Kymi and Kaukas mills have their own forums for local dialogue. We also cooperate with local schools and education networks, organising events and excursions, for example. In addition, it is crucial for us to engage in active dialogue with local forest owners, neighbours of harvesting sites and other individuals involved in forest management.

In Uruguay, UPM transferred 60 family houses used as temporary housing during the Paso de los Toros mill construction phase to the Ministry of Housing and Territorial Planning. The houses were awarded by the authorities to families in the area. In addition, UPM transferred 640 housing modules that will be converted into 132 permanent houses and two properties with the

necessary infrastructure to develop further housing projects.

In Uruguay, we increased safety awareness in cooperation with the government of Uruguay, in preparation for railway operations due to begin in 2024 (page 73).

Our EMAS (EU Eco-Management and Audit Scheme) statements cover societal impacts in addition to environmental performance, providing more detailed information on the local impacts of our pulp and paper mills. The EMAS statements also include information on cooperation with local stakeholders, such as the sponsorship of local organisations and the cooperation with educational institutions. These mill-specific statements complement UPM’s corporate EMAS reporting. They are compiled annually and published on the UPM website www.upm.com/responsibility.

2023 marked the 150th anniversary of the beginning of UPM operations in Kaukas, Finland. The anniversary celebrations included events for both employees and stakeholders, as well as the publication of a book on the history of the mills.

In 2023, we assessed our local community engagement practices. The results indicate that we would benefit from a clarified and more consistent approach to local community consultation and social monitoring. We will continue to update our company policies and reporting practices in 2024.

The Biofore Share and Care programme continues

UPM’s Biofore Share and Care programme demonstrates our dedication to responsibility and local community involvement through sponsorships, donations and employee voluntary work. We share our resources with causes that respect sustainable development and work in line with our purpose and values.

We continued to support projects with a focus on reading and learning, Beyond Fossils initiatives and community engagement. UPM does not financially support political parties or individual candidates.

Local sponsorships and other contributions within the Biofore Share and Care programme amounted to approximately

EUR 0.9 million (EUR 0.9 million). The figure includes support for the Uruguayan UPM Foundation, which continued with a contribution of USD 400,000 (USD 400,000). The foundation supports and encourages training, entrepreneurship, employment, healthy living and entertainment in local communities in the Uruguayan countryside.

In total, EUR 533,800 (EUR 499,800) was donated to charities or other non-profit causes such as Aalto University, LUT University, Nanjing University Research Institute, UNICEF, Helsinki Music Centre Foundation and CMI – Martti Ahtisaari Peace Foundation.

Employee volunteering emphasises local commitment and impact. UPM’s

salaried employees can spend up to eight hours per year on local volunteering work during their working hours. In 2023, UPMers engaged in various volunteering initiatives in many of our operating countries including Finland, Poland, Germany, China, Malaysia and the United States. The activities included house-building projects for those in need, visiting elderly residents in retirement homes and providing Christmas gifts to children in need. Furthermore, multiple UPM sites took part in environmental clean-up activities. For example, in Malaysia, 112 UPM Raflatac employees participated in a local beach clean-up alongside other impactful volunteering projects.

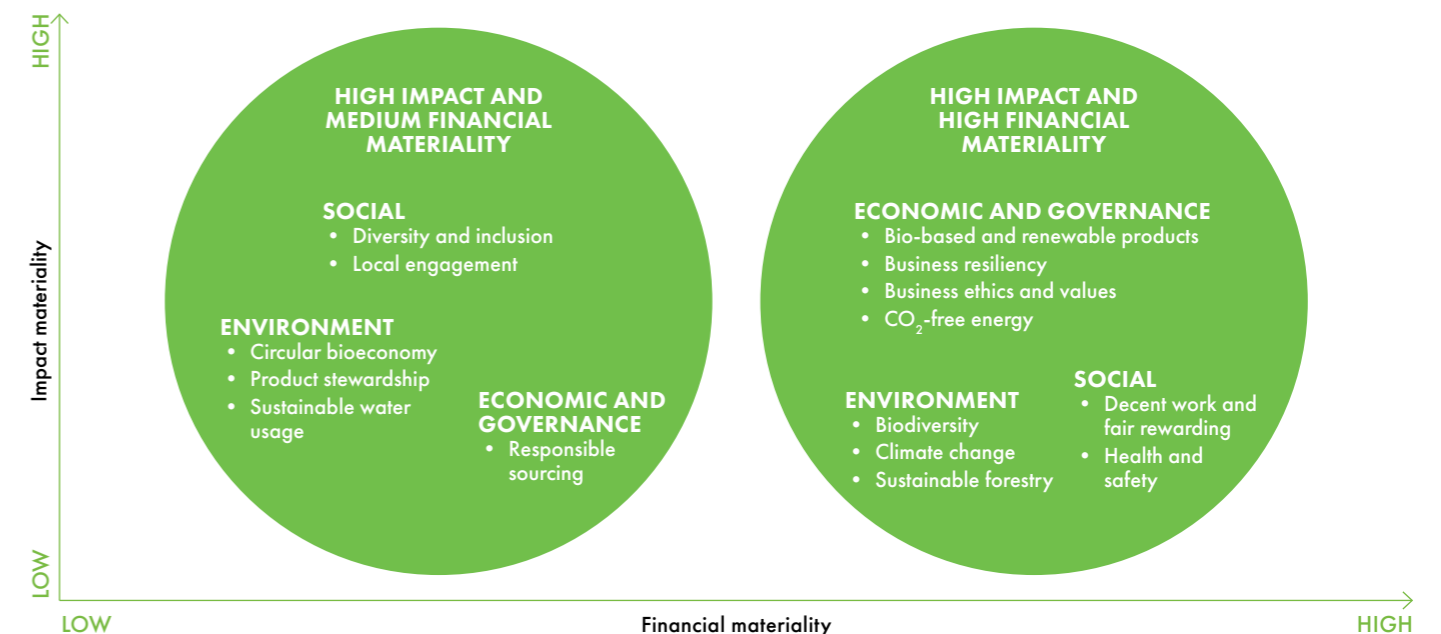
UPM’S MATERIALITY ANALYSIS 2023

A materiality analysis is carried out annually. In 2023, we changed our approach to a double-materiality assessment to prepare for the upcoming EU CSRD regulation. Double refers to considering both impact materiality, such as UPM’s impacts on people and environment and financial materiality, i.e. sustainability-related risks and opportunities likely to have financial implications to UPM. The analysis covers negative and positive as well as actual and potential impacts on economy, environment and people, including impacts on their human rights.

Impacts are identified through internal assessments, audits and reviews, as well as by following up the interests and concerns of various stakeholder

groups; communities, employees, NGOs, customers, suppliers, government and regulators, investors, researchers and media. In 2023, interviews, questionnaires and workshops were also used for the assessment.

The significance of impacts is assessed by their severity, which is determined by their scale, scope and irremediability. For potential impacts, likelihood is also assessed. For financial materiality, likelihood and scale is assessed. After prioritising the impacts, the most significant ones are selected as material to UPM and then grouped into topics. The material topics shown below determine our responsibility-related focus areas and our reporting.



IN ACTION

SUPPORT FOR EDUCATION IN URUGUAY

The UPM Foundation provides training scholarships for teachers. By the end of 2023, 1,366 teachers in the inner agricultural areas of Uruguay had received training in a project supported by the Foundation that began in 2015. The courses are organised by partner organisations such as the Catholic University of Uruguay, the University of Montevideo and various organisations and foundations.

The UPM Foundation has also supported the Ronda project in Paso de los Toros. Ronda refers

to new alternative learning environments where children can have fun and learn together. Ronda’s 13 modules are designed for a variety of uses, from workstations and traditional seating to climbing areas and a specially designed quiet space for children. The soft shapes and colours aim to create a warm and comfortable environment.

The modules are currently installed in four schools in Paso de los Toros, with a total of 650 pupils and 46 teachers. The project promotes educational inclusion and diversity and encourages teachers and students to move from traditional classrooms to a space where each child can choose their way of interacting and learning.

> [www.upm.uy/fundacion/\(esp\)](http://www.upm.uy/fundacion/(esp))



CREATING VALUE FOR PEOPLE AND SOCIETY

ENGAGING EMPLOYEES

Our culture of Aiming Higher encourages all UPMers to grow, as individuals and as a company. Our values—Trust and be trusted, Achieve together and Renew with courage—guide us along the way.

We are determined to be a responsible and attractive employer now and in the future. We want to strengthen employees’ sense of belonging and the feeling that they are doing meaningful work. This promotes productivity, engagement and wellbeing.

We measure our progress regularly. The annual Employee Engagement Survey (EES) has invited all employees to evaluate different aspects of their work every year since 2007. The high participation rate of 81% (79%) indicates that UPMers are keen to improve their workplace. The overall engagement score is 70 (70). According to the EES results, UPMers have the resources they need to do their job well and they feel comfortable being themselves at work. Also, they are able to successfully balance their work and private life. These three aspects – resources, authenticity, and work life balance – are our strengths.

Our values lay the foundation of who we are. Building a culture of Aiming Higher is essential to our success in today’s rapidly changing world. We are accountable, performance-driven, human-centric and eager to learn and grow. Our aim is to increase employee motivation further and make growth opportunities more visible and accessible.

We work together to create a more innovative tomorrow.

Encouraging learning

In an increasingly complex business environment, enhancing employees’ skills and wellbeing is important for both

IMPACT

- Strengthened sense of meaningful work and belonging among all UPMers
- Higher performance
- Happier and healthier work environment
- Passionate and purposeful leadership
- Create the future beyond fossils
- Improved safety performance

TARGET

- Improved performance, engagement and professional growth

OUR WAY

- Lead according to our values and with integrity
- Lead change in a human-centred way
- Develop an inclusive and diverse working environment
- Engage employees to create the future beyond fossils
- Develop future ways of working and collaborating
- Enable performance with agile goal setting and feedback
- Invest in the growth of our people and build new capabilities
- Provide a safe and healthy working environment and foster the wellbeing of employees and contractors
- Ensure fair, equitable and competitive rewarding for all employees

business success and sustained employability. Our long-term goal is to ensure high performance and continuous professional development.

We invest in the growth of our people and expect individuals to be eager to learn and develop. All employees are encouraged to create an individual development plan and keep it up to date. In 2023, 81% of employees had documented development plans. In the EES, the result from the question about good opportunities to learn and grow at UPM was 64 (64).

We apply the 70-20-10 learning and development framework: 70% of the learning takes place on the job; 20% comes from sharing with and learning from colleagues; and 10% comes from training.

Expert communities have an important role in sharing and learning across the

company. In addition to the existing expert communities, new ones were set up around topics such as sustainability and AI in 2023.

As part of our UPM Experience programme, the Digi-enabled operator project enabled smooth access to relevant learning content and activities in 2023. The aim is to develop digital solutions to help shop floor employees with learning and sharing in the workflow.

We have introduced new digital learning content and online programmes on a continuous basis. They encourage individuals to strengthen their self-leadership and resilience and support leaders in enabling their teams to perform and grow. We offer e-learning content to develop skills in commerce, finance, compliance, safety, leadership, design thinking and citizen development, for example.

Developing employee experience and enabling renewal

Developing employee experience is a key aspect of developing UPM as a workplace. To strengthen our work community, we started a dialogue on our purpose and values in 2021, which we continued in 2022–2023.

All UPMers are given the opportunity to create a personal and team-based connection to our purpose, values and Aiming Higher mindset. Managers have been provided with support to facilitate discussions in their teams. The EES results show that we need to continue the dialogue to maintain our employees’ excitement about UPM’s future and their sense of belonging.

We have launched projects to develop future ways of working and digital capabilities, and to create global health and wellbe-

ing concepts as part of our UPM Experience programme. We are committed to caring for our employees to feel physically energetic, mentally balanced, included and proud to work at UPM.

Digital work is an important part of the experience. We are continuously developing our collaboration tools and intranet, Griffin Forum, which was launched at the end of 2022. It connects and engages employees globally. Human centricity and design thinking guide us in content creation. In 2023, we trained nearly 10% of our employees to Power Platform citizen development tools. Employees can create applications and automate work flows to support their daily work.

We have continued to develop our employees’ career experience. Our development planning process and tools which



2030 TARGETS Employee engagement clearly above benchmark

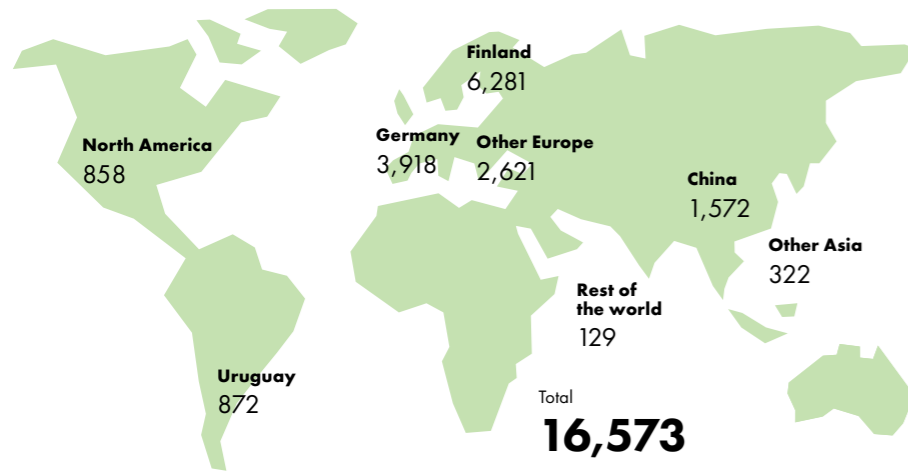
70 average score achieved, 5 points below global benchmark

2030 TARGETS Goal setting discussions and development plans for employees, 100% completion rate

85% of employees had completed individual goal setting or annual discussion

81% of employees had a development plan documented

OUR EMPLOYEES BY REGION



were renewed in 2022 enable employees to create their own development plans as needed, and at least once a year. Managers ensure that the plans are relevant. The aim is to support employees to keep their passion and expertise fresh for current and future jobs through continuous development.

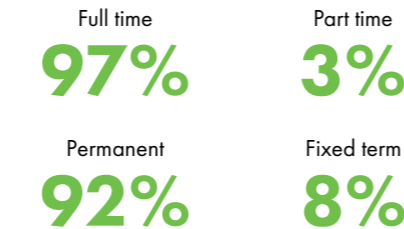
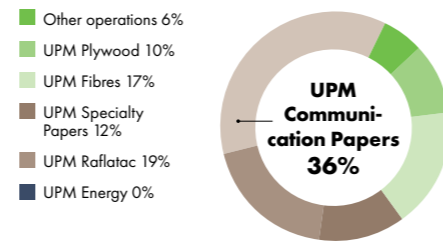
We encourage and enable employees to contribute to projects such as gigs (on the right). These are a good way to contribute, learn new skills and network. We have developed our project approach to support the project way of working and enable success

in different development projects.

Being the employer of choice has become crucial when recruiting new employees, especially younger professionals. We have been able to retain and attract employees despite the heated labour market.

We have organised several successful graduate programmes in recent years. Our apprenticeship programmes are a way to ensure the required level of expertise for future employees. The programmes typically focus on shop floor production or maintenance work and are run together with vocational training partners. In 2023,

UPM's personnel by business area 2023



approximately 500 people had participated in the apprenticeship programmes.

We are working on our employer brand both internally and in the countries where we operate. Following our systematic efforts to develop our work environment as well as concrete actions to be an employer of choice, our position among students and professionals was recognised by external parties in Finland and China.

Leading by example

Achieving our ambitious targets requires committed input from skilled people

and teams empowered by inspiring and inclusive leaders. In the long term, we aim to strengthen the leadership culture based on UPM's values and the Aiming Higher mindset which enables everyone to grow, perform and achieve business results. We continuously invest in developing leadership capabilities to ensure that leaders throughout UPM have the capabilities they need to lead themselves, people and business and drive the transformation journey toward a future beyond fossils.

Our leadership development programmes are designed to achieve those long-term goals. In recent years, the key areas of development have been inclusive and purposeful leadership, high-performing teams, building success on strengths, self-leadership and coaching. In 2023, we introduced a new programme on psychological safety and emotional intelligence to strengthen human-centric skills and included a strengths assessment into our portfolio of assessments for development.

Rewarding and recognising high performance

We reward and recognise high performance. Our approach to rewarding and recognising employees consists of both tangible and intangible components. Tangible remuneration and recognition consists of base salary, benefits and incentives, which are determined by UPM's global rules, local legislation, general agreements, local market practices, the level of the position and individual performance. Gender, age, ethnic origin and nationality play no role in determining salaries and wages.

Intangible remuneration and recognition consists of, for instance, a safe and healthy working environment, interesting and meaningful work, and good leadership and career opportunities. We have designed our reward policy to increase employee commitment to, and motivation for, high performance.

Each employee belongs to a unified annual Short-Term Incentive (STI) scheme. The scheme covers Group and business-level targets, personal and team performance targets and individual performance evaluation to differentiate and reward high performance.

The annual incentives paid in 2023 for the 2022 STI plan amounted to EUR 58.8 million, and the estimated amount of annual incentives for the 2023 plan is EUR 47.9 million. We recognise significant individual or team success with a separate Achievement Award system. It is designed to support UPM's high-performance culture and recognise individuals and teams for outstanding contribution, significant achievements and exceptional performance.

In addition to the Short-Term Incentive scheme, we provide two long-term incentive plans: the Performance Share Plan (PSP) for senior executives and the Deferred Bonus Plan (DBP) for other key employees. These annual plans cover approximately 400 participants in total.

Promoting cooperation

We are committed to active employee participation and consultation, organised in accordance with international and national rules and regulations. We offer various forums to facilitate continuous dialogue between employees and business management.

The UPM European Forum is a cooperative body that focuses on issues related to our business environment and changes within the company. The forum organises regular meetings for employee representatives from business units in Europe. Our other cooperative bodies in Finland and Germany aim to promote employee participation and dialogue, both between the business areas and country-level management and between employee representatives and employees on a national level.

Restructuring to ensure cost competitiveness

The year 2023 saw an exceptional business environment, with a downcycle well beyond normal in our industry, especially in Europe, which led to restructuring.

We permanently closed two paper mills (UPM Plattling in Germany and UPM Steyermühl in Austria), one paper machine at UPM Schongau in Germany and one label-stock production line at the UPM Raflatac factory in Tampere, Finland. We also finalised our exit from Russia, with the largest impact on our plywood business. Temporary layoffs were carried out in nearly all businesses.

The closures and restructuring significantly decreased the number of personnel. To alleviate the impact of the closures on our employees, together with the employee representatives, we implemented active measures that promote employment and re-training. At the same time, we recruited new people in our growth businesses in Uruguay and in Germany.

- > A diverse and inclusive working culture on page 68
- > Advancing human rights across our businesses on page 72

IN ACTION

PRODUCT DEVELOPMENT WITH STUDENTS

The Sustainable Design Studio course organised by LAB University of Applied Sciences and UPM offered students the opportunity to delve into the world of sustainable design. During the course, students were familiarised with UPM's packaging materials and then developed innovative concepts from renewable materials.

The course introduced the characteristics of UPM's packaging materials and practical

examples of how they can be used to replace fossil-based materials. The students focused on using either UPM's specialty papers and label materials, UPM's biocomposites or alternatives incorporating several materials.

The winning concept blends an interesting idea with a near-ready commercialisation concept. The Hangry Boy frozen pizza packaging made from recyclable materials combines the imaginative use of packaging paper with ease of use. The packaging is also designed to meet the needs of consumers in many ways. The course is a continuation of the long-standing collaboration between the Lahti Centre of Design Expertise and UPM.



UPM PERSONNEL IN FIGURES	2023	2022	2021
Employees	16,573	17,236	16,966
Turnover, %	11.1	14.7	14.5
Turnover, % (voluntary)	5.1	6.8	5.6
Average age	44.3	44.1	44.3

SPOTLIGHT

EXPANDING HORIZONS WITH GIGS

Gigs, introduced in 2023, are short-term, small, business and individual value-added projects for which employees can use 10–20% of their working time. Gigs support employees' development and enable the dynamic resourcing of smaller projects relevant to the business.

Gigs bring benefits to all parties involved: gig hosts, gig members, the business and the members' own line organisation. They contribute to the UPM experience and increase cooperation and learning throughout the Group. We get agility and dynamism into our organisation. The goal is also to lower the threshold for internal rotation.

All UPM employees can apply for the projects. In 2023, a total of 44 gigs were carried out in the Group, involving 150 people, on topics such as carbon utilisation, AI, customer claim handling and project way of working.



CREATING VALUE FOR PEOPLE AND SOCIETY

DIVERSE AND INCLUSIVE WORKING CULTURE

We develop an organisational culture and local conditions that ensure a diverse and inclusive working environment.

We value diversity and strive for an inclusive culture and working environment. We respect the privacy of our employees and promote equal opportunities and objectivity in employment and career development.

All UPM employees are treated as individuals regardless of gender, sexual orientation, age, ethnic origin or nationality, for example. We welcome the talent of people with diverse skills and backgrounds in our global team. Promoting diversity and inclusion in the workplace is not only the right thing to do, but also a prerequisite for our business success and for a healthy work

environment. Rich points of view improve decision-making and business success.

Diversity and inclusion are part of our Aiming Higher mindset and thus part of our cultural development plan. We develop our ways of working to be modern and inclusive.

Three action areas

Our Diversity & Inclusion initiative consists of three action areas: commitment to diversity and inclusion, creating and leading inclusive culture, and regular reviews of our data and processes.

In 2016, we signed an EU Diversity charter. Our commitment and expectations related to D&I are stated in our HR Rules and UPM Code of Conduct.

Our D&I-related social responsibility targets, which were renewed in 2021, focus on sense of belonging and female representation in professional and managerial roles. We have set an ambitious target of 40% female representation by 2030. We aim to develop our leadership capabilities with this increased diversity. Our situation varies by organisation. Therefore, each business requires its own targets and plans to

increase female representation. According to our analysis, men and women have equal opportunities to progress at UPM.

We have carried out a gender pay equity review every year since 2021, closing the gender pay gap that cannot be explained by the factors that typically determine a person's salary and how it develops. We will continue to monitor this development annually and make corrections if needed. In 2023, we committed to the UN Forward Faster Initiative with gender equality.

To further develop inclusive leadership and culture, we started a dialogue with management teams in 2019 and continued this work across the company in 2023. Approximately 2,600 UPMers have participated in the dialogue since.

We broadened our understanding on leading diverse teams and developed awareness of LGBTQ+ diversity and inclusion in the workplace among our top leaders in 2022. We launched e-learning training on this topic for all UPMers. Nearly 700 people have taken the training. To get support in developing our practices, UPM joined as a member to the Workplace Pride in 2023.

We defined our Employee Resource Group approach in a project with diverse people around UPM and established a network on LGBTQ+ (BeU) in 2023 (below). The BeU has attracted interest among UPMers. The network members and the core team plan activities to support the community and create awareness at UPM.

Inclusive behaviours are integrated into our leadership development programmes and in the UPM Code of Conduct training. In 2022, we began to measure inclusive leadership, i.e. how leaders at UPM value

different perspectives. According to the Employee Engagement Survey (EES) results, there was no change from the previous year. Inclusive leadership will continue as a development area for us.

For sense of belonging, we have a target whereby we compare ourselves to the top 10% of benchmark companies. Our EES also measures authenticity (i.e. feeling comfortable being oneself) and fair treatment, which are important strengths for us. We continuously follow up on them.

Regular monitoring

We regularly review our diversity status and data. Our management teams conduct self-assessments that address diversity and inclusion. Managers and HR have dashboards with diversity data. Processes such as rewarding and recruitment are followed up on regularly. We also regularly report progress to several external indices.

We were included in the 2023 Bloomberg GEI (Gender-Equality Index). The index awards the publicly traded companies that are most committed to disclosing their efforts to support gender equality.

- > The Forward Faster initiative on page 30
- > Engaging employees on page 64



UPM is among top 10% companies on employees' sense of belonging



68 average score on EES question, 12 points below benchmark of top 10% companies

86 Nationalities in **43** countries

Shop-floor **57%** Salaried **43%**

Women **23%** Men **77%**

Women leaders **23%** +1pp Multinational teams **25%** +2pp

Age-diverse teams **55%** -1pp

Employee Engagement Survey results

Authenticity score **79** +1 Fair Treatment score **74** +0

IN ACTION



CREATING A MORE INCLUSIVE WORKPLACE

In recent years, we have worked systematically to develop a culture of diversity and inclusion. We strive to create a workplace where everyone feels safe and can be themselves. We also want to foster a culture of collaboration, where employees share their ideas and learn from each other.

One of the ways we support diversity and inclusion is through our Employee Resource

Groups (ERGs). These are voluntary, employee-led initiatives that are organised around common social identities or backgrounds. They also provide opportunities for networking.

Our first ERG, BeU, is a network for the LGBTQ community and allies. BeU is open to all UPMers who want to contribute to building an inclusive and welcoming workplace for everyone. We want to raise awareness and promote inclusion of LGBTQ+ issues in the workplace and support the community worldwide.



CREATING VALUE FOR PEOPLE AND SOCIETY

SAFETY FIRST

Our focus areas in occupational health and safety were the wellbeing of our employees, process safety and behavioural science-based leadership.

Our safety work is based on long-term planning, effective communications and leadership. Safety is incorporated in all our daily operations and in new and ongoing projects, proactive safety forms an integral part of project plans and site practices. The thorough investigation of incidents and effective risk management play an important role in making our operations safer. We also share safety observations and best practices in our business units to improve safety.

We aim to have zero accidents. Despite our continuous efforts to prevent all accidents, in 2023, we had five serious accidents (three in Finland, one in Germany and one in China). Out of the five accidents,

one happened to a contractor and four to UPM employees.

All accidents were thoroughly investigated in close cooperation with authorities and contractors. The corrective and preventive actions were initiated and the key learning points were shared across all businesses to prevent similar accidents from happening in the future.

We recognise exemplary safety performance with company-wide awards, the UPM Raflatac Wroclaw factory received the UPM CEO Safety Award 2023. The winner's continuous improvements in safety are visible at the premises and in production, in the daily working practices and in the culture.

In 2023, a total of
54,000
safety-related near-miss and safety observation reports

36,000
safety walks and discussions

Strong focus on process safety

We continued our systematic work to develop process safety. We implemented a UPM-wide process safety standard that sets minimum requirements for process safety in operations, projects and functions. We developed global process safety e-learning training to increase awareness throughout our organisation.

Together with the OHS network, we assessed the current state of process safety within our operations and made development plans for the years ahead. Process

safety risk assessments were incorporated into the investment process and the key elements of process safety were integrated into loss prevention surveys conducted in our mills by an external partner.

We continued to run training sessions on behavioural-based safety leadership for UPMers in various businesses. The training supports our managers in providing safety leadership so that safety naturally forms part of daily management and ways of working.

Annual safety audits are an integral part of our OHS management system. Cross-functional auditing provides valuable feedback about selected OHS processes and daily activities. In 2023, our auditing focused on risk management and operating permits.

Vision for health and wellbeing

We continued to implement our UPM Health and Wellbeing vision, which takes a holistic approach that is divided into four themes: body, mind, heart and soul.

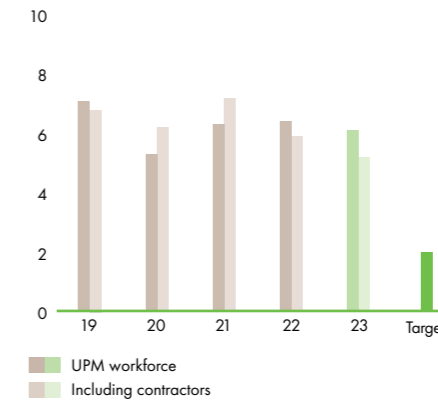
The health and wellbeing pulse survey, conducted in May, showed improved results in all questions compared to 2022. During the year, we organised a company-wide virtual health and wellbeing campaign as well as local activities. The psycho-social risks were one of the focus areas in the company-wide safety week. We also piloted virtual support services for mental wellbeing in selected locations.

All production units have an OHS management system, of which 90% have the ISO 45001 Occupational Health and Safety management system certification. It means that 74% of our employees are covered by

the certification.

Our actions to ensure business continuity with regards to COVID-19 continued in 2023 and focus was placed mainly on managing the situation locally as the pandemic and required measures varied significantly in different countries and locations.

Total recordable injury frequency (TRIF)



2030 TARGETS TRIF below 2 for UPM workforce and including contractors

5.2 achieved for total injuries per one million hours worked

2030 TARGETS Absenteeism rate below 2 for UPM employees

4.3 absence rate achieved as % of theoretical working hours

UPM WORKFORCE INCLUDING CONTRACTORS	2023	2022	2021
Total injuries per one million hours worked, TRIF	5.2	5.9	7.2
Lost-time accidents per one million hours worked, LTAF	3.4	3.3	3.5
Serious accidents	5	5	3
Fatalities	0	3	0

UPM WORKFORCE	2023	2022	2021
Total injuries per one million hours worked, TRIF	6.1	6.4	6.3
Lost-time accidents per one million hours worked, LTAF	3.7	3.2	3.1
Serious accidents	4	3	2
Fatalities	0	0	0
% absence hours from theoretical working time*	4.3	4.5	4.1
Occupational diseases*	5	6	5

* Reflects own employees



IN ACTION

EMPLOYEE DISCUSSIONS ON SAFETY IN OUR WORKPLACE

As part of the global UPM Experience programme, we launched a new safety project in 2023. Its aim is to develop safety practices more from an employee perspective and engage people more in safety. Discussions concerning safety were held at mills and other workplaces in the autumn. In addition to obtaining employees' insight, the group discussions and workshops were also aimed at gathering ideas for further development.

The aim of the discussions was to bring together all employees and gather experiences about safety in their workplace. Employees were asked specific questions, such as how they would describe the best possible scenario and how they would improve safety at the site.

By the end of 2023, more than 6,500 employees in over 50 sites had taken part in the discussions. Responses will be analysed both locally and globally. In 2024, work to develop of a new safety vision and various development projects will continue.



CREATING VALUE FOR PEOPLE AND SOCIETY

ADVANCING HUMAN RIGHTS ACROSS OUR BUSINESSES

Respect for human rights is the foundation of our social responsibility agenda and the related 2030 targets.

IMPACT

- Provide a safe and inclusive working environment for our employees and respect the rights of the people in our value chains
- Promote decent work and play our part in building a more equitable society

TARGETS

- We understand our business environment and impacts on people, whilst we recognise the evolving nature of both
- We prioritise the most severe human rights risks and impacts and take action to address them

OUR WAY

- Our approach is based on the UN Guiding Principles on Business and Human Rights (UNGPs) and guided by our Code of Conduct and its associated policies, rules and guidelines
- Our expectations for suppliers are set in the Supplier and Third-Party Code
- We have identified our salient human rights issues at Group level and prioritise actions accordingly
- We monitor and work to remediate adverse impacts on human rights
- We engage with our stakeholders

In an era of prolonged instability, including socio-economic pressures and a sense of urgency regarding the climate and biodiversity crisis, the need to accelerate progress by working together is evident. We must not only understand the impacts on people and changes in our business environment, but also use our leverage to respond to these shifts.

In September, we joined the UN Global Compact Forward Faster initiative (page 30). It recognises the critical role of living wages and gender equality in promoting respect for human rights and tackling inequality.

As an example, our social responsibility targets aim to increase female representation in professional and managerial roles to 40% by 2030 and ensure gender pay equity among all employees globally. Our living wage assessment is conducted annually in collaboration with an external partner using a proven methodology, process and

benchmarks including estimates for all our countries and cities. An external assurance partner provides verification of our results and methodology.

Promoting human rights requires internal capacity building but also collaborative action. We continued to take part in several collaborative forums such as the Human Rights Business Learning Programme by Shift, Together for Sustainability (TfS) and the UN Global Compact (UNGC).

Focus on salient issues

In 2023, we reviewed our salient human rights issues in connection to our materiality analysis and the associated stakeholder input. We will continue to develop our saliency assessment and further engage the rightsholders and internal and external stakeholders. The review of our global salient issues will be finalised in 2024.

We focused especially on assessing salient human rights issues in our supply chains and affected communities. We also strengthened our internal capabilities to identify human rights-related risks by organising workshops and trainings. Our saliency assessment highlights topics such as fair terms and conditions of work, occupational safety, forced labour and modern slavery in global supply chains, environmental impacts, biodiversity, land use and community safety.

Across our salient issues, we acknowledge the importance of collaboration and the continuous development of our due diligence work. In 2023, we strengthened our human rights due diligence practices in investments and business development projects. In Uruguay, we focused on community rail safety (on the right) and started a human rights impact assessment across our operations in collaboration with an external partner. The assessment supports our continuous due diligence activities and strengthens our ability to communicate about our human rights work.

Identifying actual and potential impacts

Our businesses identify human rights risks and impacts on a regular basis and prioritise focus areas accordingly. This practise is being integrated into their unit-specific management systems to ensure continuity.

With this risk assessment practice, we identify topics that are specific to one country or unit as well as changes in our operating environment that may impact people, particularly those in the most vulnerable positions. Migrant workers, women, young workers and temporary and contractor workers have been identified as groups with a higher risk of potentially experiencing adverse impacts across our value chain.

Overall, contractors perform a significant proportion of our activities, for example in maintenance at our production units, in construction work and in forestry operations. In 2023, we continued our work on contractor management and initiated a project to develop UPM’s model to manage contractors’ social responsibility performance.

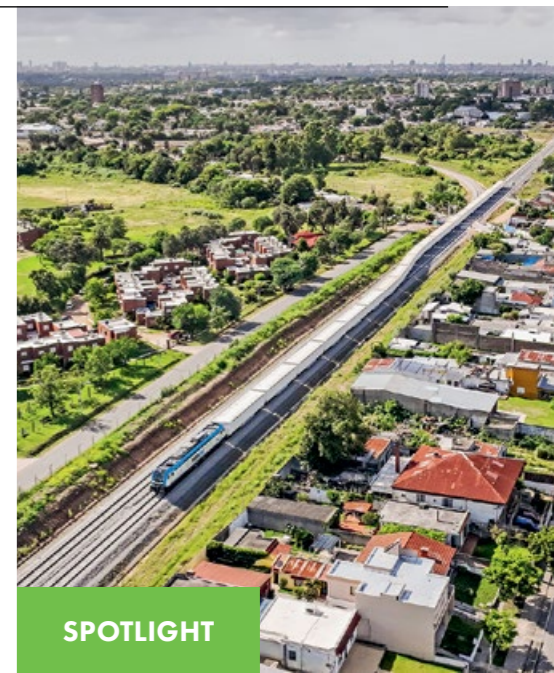
Responding to stakeholder concerns

Effective management of grievances is an essential part of our due diligence to ensure respect for human rights and environmental protection. We operate grievance mechanisms that allow our employees, stakeholders and other potentially affected individuals to raise concerns or complaints. In 2023, we strengthened our mechanisms and updated our internal procedures for managing and documenting stakeholders’ concerns regarding human rights and environmental concerns. Implementation of and training on these procedures will continue in 2024.

Our operations in Uruguay and particularly our new UPM Paso de los Toros pulp mill, have raised concerns among some of our stakeholders. In 2023, we received a communication via the UN Special Procedures of the UN Human Rights Council requesting information about UPM’s activities and their possible connection to the water scarcity that effected the metropolitan area. Our response is publicly available and details why the allegations are considered unfounded.

We continue to promote active dialogue with our stakeholders and welcome further discussion and feedback.

We monitor and work to remediate adverse impacts on human rights that we become aware of and that our activities have contributed to or caused. Remediation is specified case-by-case based on verified impacts.



SPOTLIGHT

“IF THERE’S A TRACK, THERE’S A TRAIN – STOP!”

Rebuilding the state-owned railroad from Paso de los Toros to Montevideo is one of the most significant infrastructure projects in Uruguay’s history. Along with the 273-kilometre railway, the project also involves the construction of 246 level crossings, 66 railway bridges and 25 stations.

Reviving the track requires more than just rebuilding it; it also means reactivating the dormant safety culture and coexistence with the railway. As one of the main future users of the railway, UPM collaborated with the Uruguayan Ministry of Transport and Public Works and the leading traffic safety organisation Automóvil Club del Uruguay (Automobile Club of Uruguay) on the launch of a Railway Safety Awareness Programme.

In the first phase, work was done to inform and mobilise all the communities that live in proximity of the track and included rail safety workshops with local authorities and organisations related to traffic, road safety, emergency, security and health. Later, the scope was broadened to include schools and educational centres.

So far, the programme has reached more than 250 authorities and key leaders, 6,000 students and teachers in 25 communities and the total reach is even greater. On-site actions are also complemented with media campaigns. The programme will continue throughout 2024.

CREATING VALUE FOR PEOPLE AND SOCIETY

COMMITTED TO COMPLIANCE

Regardless of the location, circumstances or people involved, we are committed to complying with applicable laws and regulations, as well as our Code of Conduct.

IMPACT

- Committed and engaged employees
- Competitive business with no disruption
- Maintaining our reputation and the trust of business partners and other stakeholders

TARGETS

- Compliant operations and behaviour
- An engaging work environment where employees feel safe to voice their concerns
- Responsible value creation

OUR WAY

- We are all responsible for building a culture of integrity, with everything we do and every choice we make
- We do not compromise our standards of integrity under any circumstances
- Accountability for compliance extends down from the Board of Directors and senior management to all employees

Our Code of Conduct and our values help us make the right choices and guide our work in a changing business environment. This lays the foundations for long-term success.

We strive to ensure compliance with our values and commitments by implementing a company-wide compliance programme through our compliance system (on the right). The compliance system is embedded in our governance model and is designed to bolster company performance and a culture of integrity at all levels. We follow how this culture is developing with the help of our annual Employee Engagement Survey (EES). In the EES, the average score about how ethically people at UPM behave was 75 (74), when the external benchmark was 79 (78).

Risk assessment

With the support of our compliance team, each business area, function and unit is responsible for identifying and managing compliance risks related to its own operations. We use the results of annual risk assessments to guide compliance activities and mitigation actions in businesses and functions.

Together, the compliance team and the businesses update the risk assessments and mitigation actions throughout the year to respond to changes in the risk environment. The progress of mitigation actions is reported to the Audit Committee of the Board of Directors and businesses on a quarterly basis.

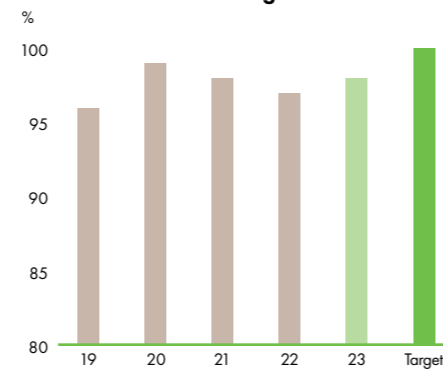
Policies and procedures

Policies and procedures form the basis of our compliance programme. We review their update needs in accordance with our policy management process annually. The world around us is in constant movement, our businesses evolve, and the regulatory environment changes. For this reason, we want to ensure that our Group policies stay relevant and up to date.

Training and communication

Policies and procedures are implemented through training sessions and communication. Available compliance e-learning modules with the target group and completion rates are listed in the table on page 77. Our e-learning modules are available on the same HR

Code of Conduct training



2030 TARGETS 100% coverage of participation in UPM Code of Conduct training (continuous)

8 DECENT WORK AND ECONOMIC GROWTH **12** RESPONSIBLE CONSUMPTION AND PRODUCTION **98%** of active employees completed the UPM Code of Conduct training

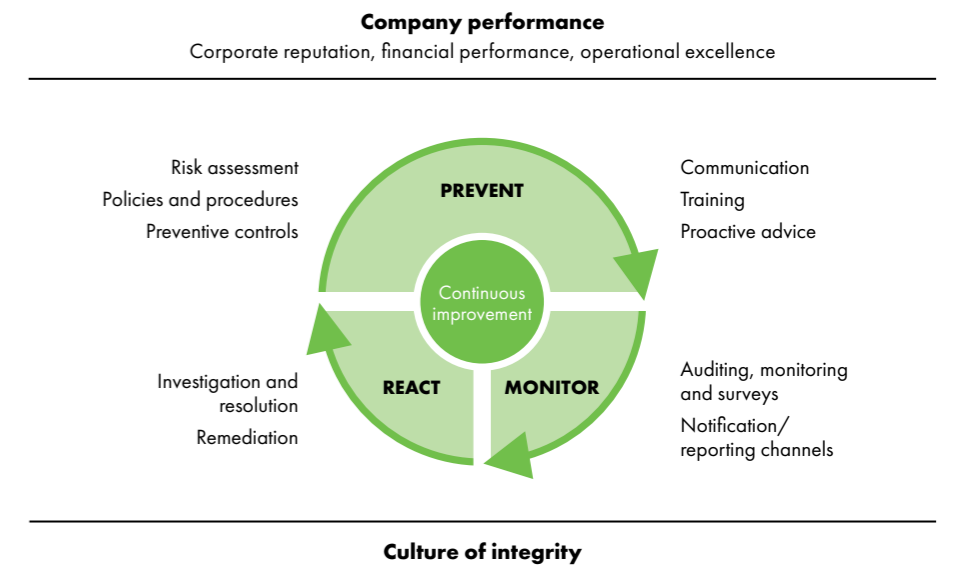


platform and are easily accessible to our employees. The completion of mandatory e-learning is a prerequisite for short-term incentive payments.

As the compliance e-learning modules have previously been available only to our own employees, in 2023 we built a platform through which we can also offer the trainings to employees of our business partners working for UPM. This ensures that they are committed to the same standards of integrity as we are.

We complement the e-learning modules with face-to-face and virtual compliance training with specific target groups. The target groups are determined based on risk assessments. The compliance training sessions are supported by active communication. In 2023, amongst other things, we introduced the Code Newsletter highlighting topical compliance content; this is sent to all employees via email on a regular basis.

UPM COMPLIANCE SYSTEM



Monitoring

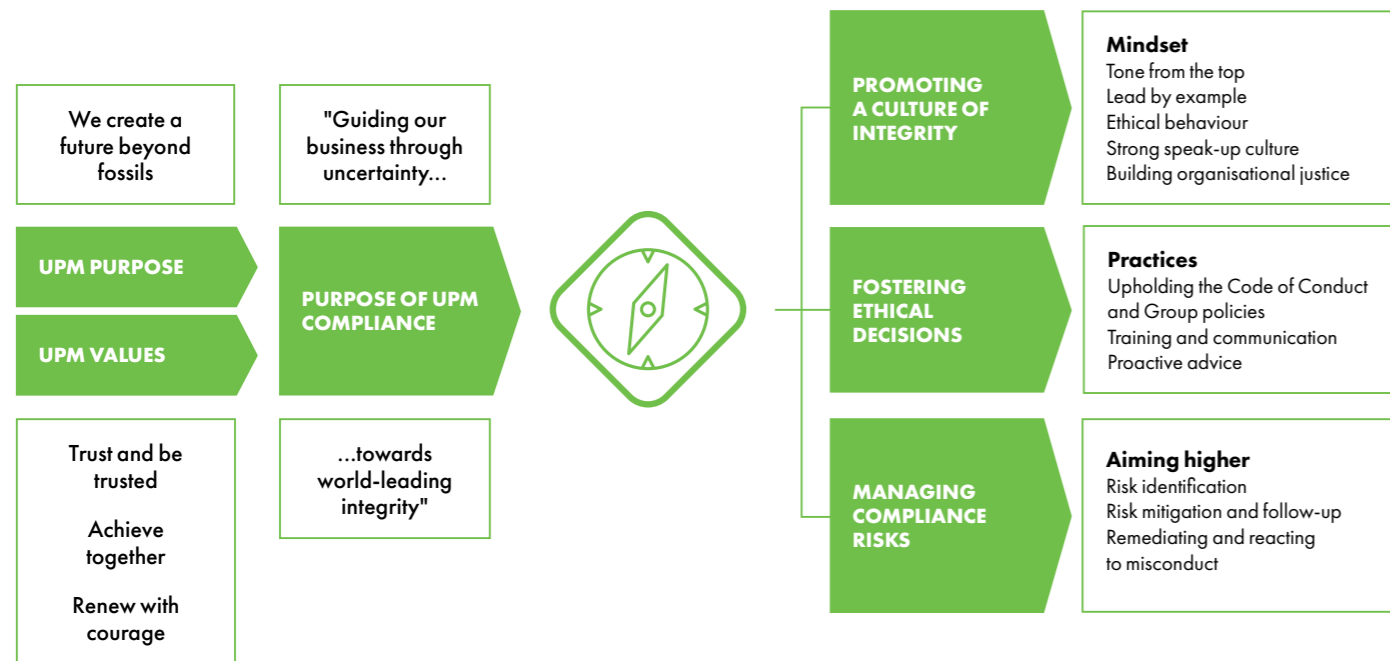
We aim to ensure compliance at all levels of the organisation through monitoring. Our monitoring activities are based on a Group company risk matrix that considers the

country risk and complexity and the extent of our operations in each country.

Our compliance team has a three-year monitoring plan for its unit-specific compliance reviews that are based on this

matrix. On top of these general reviews covering all business integrity topics, we conduct risk-based reviews around specific topics such as competition law or anti-corruption.

HOW WE BUILD A CULTURE OF INTEGRITY



- Employees tried to conceal the nature of hospitality provided to customers in violation of UPM policies. Written warnings.
- Employee had a side job which affected their performance at UPM. According to UPM Code of Conduct employees must not engage in activities that could have a negative impact on the job performance by demanding too much time or conflicting with work at UPM. Performance discussion and reprimand.
- Employee used corporate credit card for personal expenses in violation of UPM's policies. Termination of employment.

ALLEGED MISCONDUCT CASES		
UPM Code of Conduct section	2023	2022
Our commitment on integrity	9	5
Our people and operations		
Respect people and human rights	40	25
Taking care of the environmental impact and product safety	3	4
Business integrity		
Zero-tolerance for corruption and bribery	4	2
Avoid conflicts of interest	3	4
Compliance with competition laws	1	0
Protect assets and information	12	8
Our stakeholders		
Know with whom you trade	11	6
Total	83	54

The reviews to be performed each year are agreed with the businesses during the annual risk assessment process and coordinated with the Internal Audit. The most important compliance review findings and recommendations are reported to the Audit Committee of the Board of Directors and businesses. These recommendations are then carried out in collaboration with said businesses.

The integrity of our people provides a solid foundation for our continued success and growth.

In 2023, the compliance team conducted compliance reviews in five local units or operations in the Americas, the Asia-Pacific region and Europe. Another example of our compliance team's monitoring activity is the counterparty screening procedures shown in the illustration on the right.

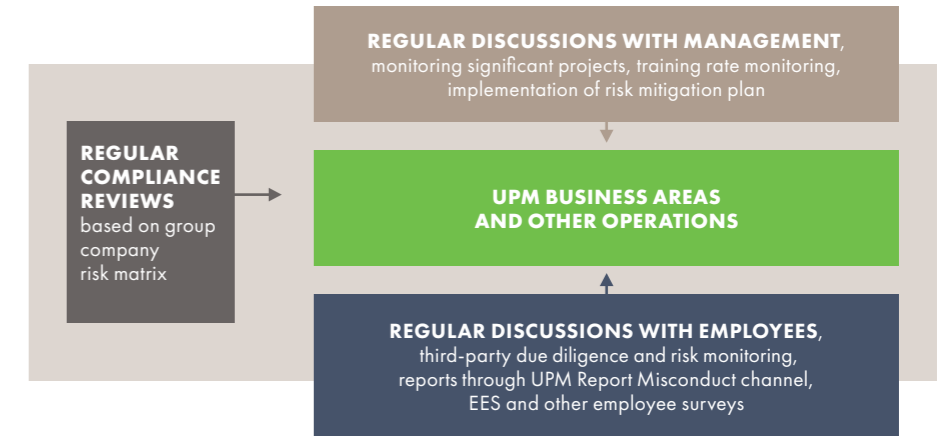
Voicing concerns

It is an important part of our culture of integrity that employees feel comfortable voicing any concerns they have and that they can trust UPM to take the appropriate action. If we see or suspect any misconduct or unethical behaviour, we must speak up and report it. We do not tolerate retaliation against any person who, in good faith, reports suspected misconduct or assists with an investigation to resolve suspected misconduct.

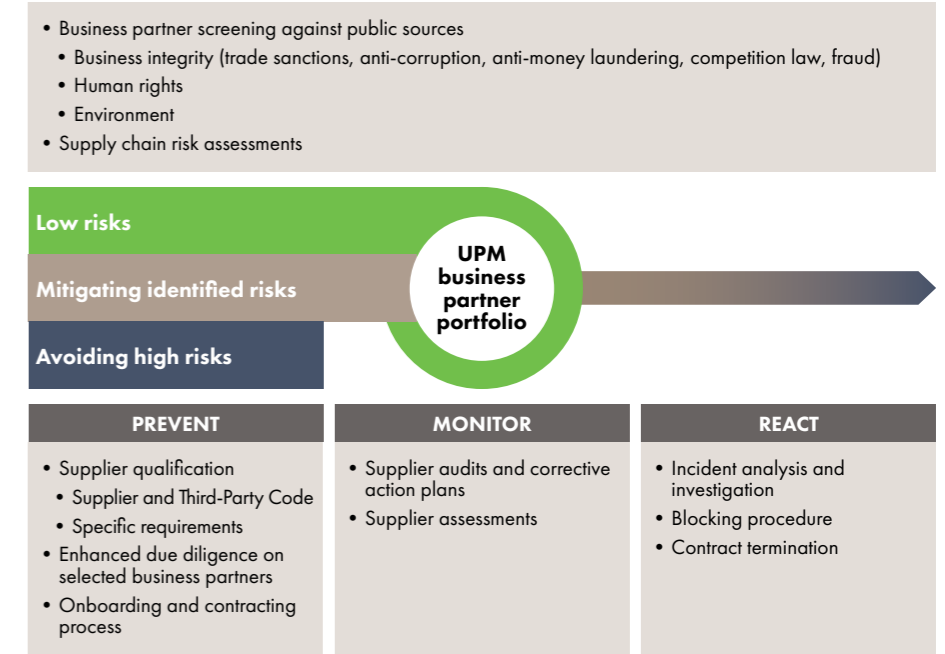
In 2023, we published our third internal Integrity Report, the purpose of which is to communicate to our employees examples of cases of misconduct and how they have been handled within the company. We also further developed our internal procedures for handling misconduct reports.

The table on the left summarises the number of cases recorded in our misconduct case management system in 2023 and provides examples of cases handled. 21 (8) cases led to disciplinary action, including warnings and terminations of employment. Investigations into misconduct include a root cause analysis that aims to identify whether compliance programme improvements are necessary.

COMPLIANCE MONITORING



COUNTERPARTY SCREENING PROCEDURES



COMPLIANCE TRAINING FOR SPECIFIC TARGET GROUPS IN 2023	COMPLETION RATES AS OF 3 JANUARY 2024	SIZE OF TARGET GROUP
Code of Conduct e-learning	98%	15,600
Personal data protection e-learning	99%	6,800
Anti-Corruption e-learning	98%	6,800
Confidentiality e-learning	96%	6,800
Competition law e-learning	99%	3,000
Insider Policy e-learning	97%	140
Association participation e-learning	100%	400

CREATING VALUE FOR PEOPLE AND SOCIETY

ENSURING A RESPONSIBLE SUPPLY CHAIN

An effective and responsible supply chain guarantees the availability of sustainably produced, cost-competitive and innovative materials and services globally in all market situations.

IMPACT

- Providing more sustainable choices to customers and consumers
- Securing the resiliency of our supply chain
- Enhancing positive brand perception for both UPM and our customers

TARGETS

- We are a trustworthy and future-oriented partner
- We ensure the efficiency, responsibility and compliance of the supply chain
- We create long-term business opportunities in the value chain in collaboration with our partners

OUR WAY

- Focus on long-term, cooperative supplier relationships and on promoting responsible practices
- Clear requirements and expectations for our suppliers
- Continuous monitoring and development of our suppliers' performance
- Process development with key suppliers
- Focus on 2030 responsibility targets

Suppliers are an essential part of our value chain. We buy products, materials, and services from some 20,000 B2B suppliers globally. Our sourcing network includes suppliers from start-up companies to international corporations. We also buy wood from around 15,000 private forest owners.

The main sourcing categories are fibre, chemicals, other raw materials, indirect purchases, logistics and energy. When selecting suppliers, our most important priorities include reliable long-term deliveries,

cost competitiveness, product and service quality, suppliers' financial stability, social and environmental responsibility, product safety and the product's carbon footprint.

Suppliers also play a significant role in UPM's transformation and business-specific growth projects. Supplier management, together with the required competencies and digitalisation, boost product development and the commercialisation of new products.

Sustainable supply chain programme

For the first time in 2023, our responsible sourcing practices and priorities were formulated into a cohesive, over-arching sustainable supply chain programme. Each element entails clear instructions regarding the relevant sourcing and supply chain management practices and implications at UPM, as well as tangible guidance, requirements and expectations for UPM's suppliers. Effective implementation is managed and tracked through our 2030 responsibility targets and performance indicators.

COMPLIANCE

We are committed to responsible sourcing practices, as per our Code of Conduct. The minimum requirements for suppliers are defined in the UPM Supplier and Third-Party Code. We expect suppliers to promote the same requirements in their own supply chains. In 2023, 89% (88%) of our total spend was with suppliers who are committed to the Supplier and Third-Party Code.

We also apply additional, category-specific requirements for example to wood, chemicals, pulp, packaging materials and logistics. The requirements refer to environmental performance, social responsibility and reporting. Contractors working

at our production sites must comply with UPM's safety requirements.

Strict requirements for wood-based materials

All the wood we use is legally logged and comes from sustainably managed forests. We don't use wood harvested from tropical rainforests or accept wood from plantations that have been established by converting natural forests. We don't accept wood from regions that do not respect the rights of indigenous peoples.

In addition, we verify that the wood supplied to our mills is compliant with applicable timber and deforestation legislation and other regional requirements.

Our wood, pulp and recovered paper suppliers are continuously evaluated with regard to environmental and social responsibility and their involvement in the local community. These raw materials are either FSC™- (N003385) and PEFC- (PEFC/02-44-41) certified or comply with the FSC Controlled Wood standard or Due Diligence requirements for PEFC.

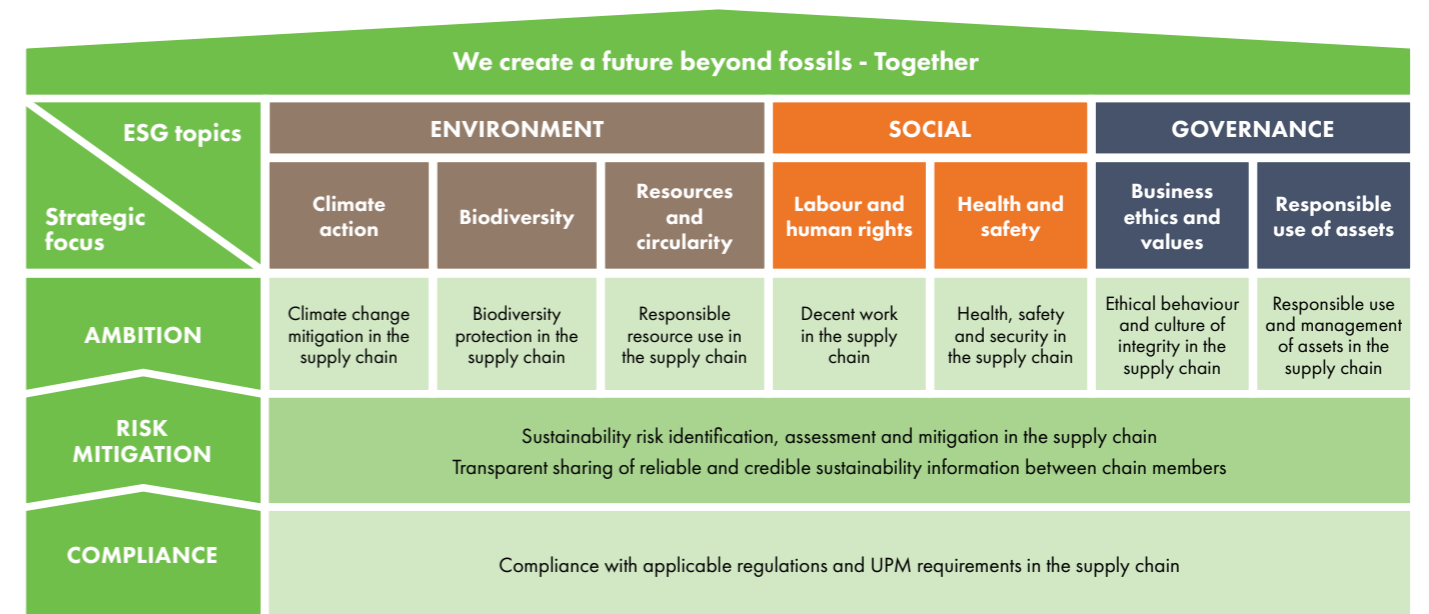
We source all wood assortments to ensure the optimal utilisation of this valuable raw material. We purchased 25.5 (19.8) million cubic metres of wood worldwide in 2023. We suspended the purchasing of wood in Russia after the start of Russia's war in Ukraine.

RISK MITIGATION

We identify our suppliers with the greatest business relevance and supply chains with a high risk of potential negative environmental and social impacts.

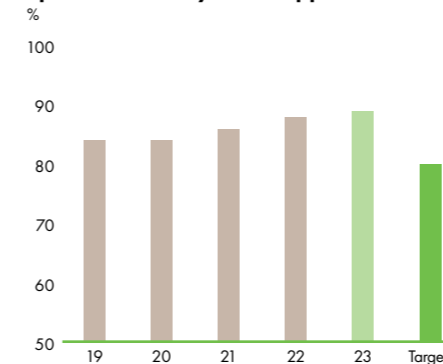
In 2023, we improved risk management in our supply chain. We created risk man-

SUSTAINABLE SUPPLY CHAIN PROGRAMME



agement contingency plans for identified high sustainability risk suppliers. The evaluation is based on the country of origin, sourced material or service and the UPM supply chain ESG risk register, encompassing country-, commodity- and sector-spe-

Spend covered by UPM Supplier Code



2030 TARGETS 80% of total supplier spend covered by UPM Supplier and Third-Party Code (continuous)

89% achieved

cific sustainability risk insights.

We also use EcoVadis and other assessments, supplier audits and reviews as well as joint development plans to carry out more detailed evaluations of suppliers' activities. All suppliers are screened regularly with our counterparty risk management tool.

If any non-conformities are identified, the supplier is required to take corrective measures. We monitor the implementation of these measures and provide support to improve the suppliers' operations if needed. Some contracts may have to be discontinued due to insufficient measures or the seriousness of UPM's findings.

In 2023, we renewed UPM's Responsible Procurement Guidebook to improve supply chain resilience and risk management. By the end of 2023, a total of 420 UPMers had completed the online training.

We continued our close collaboration with Together for Sustainability (TfS).

Extensive supplier audits and reviews

In 2023, our own trained auditors and external auditors carried out 95 (121) audits globally, based on identified risks related to social and environmental topics, including human rights.

We identified approximately 125 find-

ings in these audits in 2023. One of the findings was considered critical with potential significant negative social impacts. Corrective actions and development plans with suppliers are underway. All findings are followed-up with corrective action plans and further audits in close collaboration with our suppliers.

We also carried out 890 (360) contractor reviews in Uruguay focusing on working conditions. The number increased with the new pulp mill in Uruguay. Around 540 (520) of our suppliers completed sustainability assessments with EcoVadis.

AMBITION

We seize sustainability-related opportunities to create business value through supplier development and collaboration. Our sourcing ambitions focus on selected environmental, social and governance topics (above). We use shared development and innovation projects with our suppliers and different sustainability initiatives.

In 2023, we focused on collaboration in climate action via our Group-wide -30 by 30 programme on CO₂ emission reductions in the supply chain (page 93).

> www.upm.com/about-us/for-suppliers

CREATING VALUE FOR PEOPLE AND SOCIETY

CONTRIBUTING TO SOCIETY THROUGH TAXES

The winds of change are blowing through the global principles of taxation.

IMPACT

- Taxes contribute to society on a local, regional and national level

TARGETS

- We are strongly committed to continuously improving our economic and social performance
- Our businesses also play a leading role in contributing to societal development in the surrounding communities through the tax revenue we generate

OUR WAY

- Based on the standards of the UPM Code of Conduct, the UPM Tax Strategy describes the main principles and guidelines for our taxation
- Taxes are paid in accordance with local tax laws and regulations that apply to the country in question
- We pay corporate income taxes in the countries where added value is created and profit is generated

contributions). We paid taxes on real estate, equity and similar properties in various countries to the sum of EUR 37 million (EUR 35 million).

The table on the right displays the corporate income tax and taxes on real estate, equity and similar properties paid in our main countries of operation. Based on our corporate and operational structure, UPM mainly reports and pays its corporate income tax in countries where production and innovating activity takes place.

In Finland, we have significant production operations across our six business areas, as well as research and development operations. As a result, UPM is typically one of the major taxpayers in Finland. UPM's corporate income tax in Finland in 2023 is estimated to be EUR 112 million (EUR 247 million), which includes taxes reported and paid by UPM-Kymmene Corporation as well as its Finnish subsidiaries.

In Uruguay, the government has granted several free-trade zone permits for domestic and foreign investments. The Uruguayan government has granted our pulp mills a permit to operate in a free-trade zone. Consequently, taxes in Uruguay mainly consist of taxes on property and equity and annual tax-like charges paid to the Uruguayan government for the development of the zone.

In China, as a fine paper producer, UPM qualifies as a high-tech enterprise with a reduced corporate income tax rate of 15%. UPM also pays withholding tax on dividends in China.

In countries where our companies are using tax losses from previous years to offset the tax liability of the year in question, such as Germany, limited corporate income tax is paid.

We will modify our tax reporting accordingly as soon as the final definitions are available.

Corporate income taxes vary by country

Despite the challenging circumstances, our businesses were able to continue their operations with solid results, resulting in the related tax revenue in various countries. In 2023, UPM's effective tax rate was 15.2% (19.9%) and its cash tax rate was 39.5% (16.2%). The corporate income tax reported in 2023 was EUR 71 million (EUR 388 million) and the corporate income tax paid in 2023 was EUR 183 million (EUR 315 million). In addition to taxes on income, our various production inputs and outputs are also subject to taxation, which is either paid by us (e.g. energy tax or property tax such as taxes on real estate) or collected by us (e.g. VAT, payroll tax and social security

Throughout 2023, the OECD, the G20 forum and the European Union (EU) continued to introduce and develop solutions to address the tax challenges arising from the digitalisation and globalisation of economies. These solutions are aiming for a minimum level of taxation of companies in the countries where they operate (the OECD's Statement on a Two-Pillar Solution), as well as standardised public tax reporting by companies (the EU's public country-by-country reporting).

We have implemented our transparent and responsible Tax Strategy for several years. Therefore, we welcome any initiatives for more standardised global tax reporting by corporations, as well as those for fair and responsible tax payments in the countries where corporations operate. We continue to monitor and prepare for these developments in the global principles of taxation and to assess the impact on UPM.

In accordance with UPM's Tax Strategy, the locations of our companies are driven by commercial rationale and business reasoning. We do not transfer any value created or have any investments in production or service operations in jurisdictions defined by the Council of the European Union as non-cooperative jurisdictions for tax purposes, or in any similar secrecy jurisdictions. A list of UPM subsidiaries and joint operations, as well as their country of incorporation, can be found on page 219.

Furthermore, our sites contribute to local employment, income tax and purchasing power, as well as engaging in projects with communities. Information can be found in the pulp and paper mills' third-party verified EMAS reports on environmental and societal responsibility.

Energy taxation at various levels of the value chain

In addition to future changes to global income taxation as described above, the European Commission also aims to reform the current taxation of energy products and electricity as part of the European Green Deal development programme and its Fit for 55 climate package. The energy sector has also been impacted by the temporary measures introduced in the EU in response to the developments in the energy market,

including a temporary profit tax on the electricity sector in Finland for 2023.

Energy taxation is relevant to us not only as a significant electricity producer but also in our manufacturing processes and the taxation of end products, as well as taxation at various levels of the supply chain.

Electricity produced by us is subject to electricity taxation, regardless of which sources are used. The majority of our electricity production is CO₂ free hydropower and nuclear power.

In addition, our renewable products (UPM BioVerno diesel and naphtha produced from a residue of pulp production) are subject to the energy taxation charged by fuel distributors to their customers. However, the energy tax rates for transport fuels from renewable and sustainable sources, like UPM BioVerno, are lower than those from fossil fuels.

Most of the energy used in our production processes is subject to energy tax, although there are various tax rates and exemptions depending on the type of use. We also pay a significant amount of energy tax on fuels for logistics costs, especially for road transportation.

Within the EU, energy taxation laws allow member states to compensate for the taxes paid on, or apply lower tax rates to, industrial production. Many of the main

countries in which we have production facilities, such as Finland and Germany, offer such tax relief because the level of energy taxation has increased significantly in recent years.

Our tax governance and tax compliance

The Board of Directors' Audit Committee is responsible for the supervision of tax risk management as part of our risk management processes. UPM's internal control and risk management operations review tax risks regularly and update the control framework together with the tax function. A more thorough review of the tax practices of customers and suppliers is part of our counterparty risk management processes.

The UPM Tax Strategy is supported by internal instructions, internal controls, and the benchmark analyses of best practice. Tax matters are managed by our tax function, which is complemented by third-party tax services to comply with local tax reporting and filing, as well as other requirements.

We aim to cooperate transparently and proactively with tax authorities. We also value dialogue with other important stakeholders concerning taxation. In Finland, UPM co-operates with the Finnish Tax Administration.

CORPORATE INCOME TAXES PAID AND PROPERTY TAXES ¹⁾ BY COUNTRY		
EURm	2023	2022
Finland	102	289
Germany	43	-10
Uruguay	25	18
United States	18	27
China	5	11
Austria	5	1
United Kingdom	3	4
Poland	3	2
France	2	2
Estonia	1	1
Other	14	4
Group total	221	349

¹⁾ Property taxes include taxes on real estate, equity and similar properties paid by country

DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED BY UPM IN 2023 (EUR MILLION)		
Direct economic value created		Economic value distributed
		Operating costs
		-8,023
Sales	10,460	Employee wages and benefits
		-1,287
Income from sale of assets	19	Payments to providers of loans
		-160
Income from financial investments	40	Dividend distribution
		-799
		Corporate income taxes paid and property taxes
Other income	220	
		-221
		Donations
		-1
Total	10,739	-10,491
Economic value retained 248		

UPM's economic impact is significant in the surrounding communities. The company's operations contribute to local, regional and national economies by generating economic benefits for different stakeholder groups. The related direct monetary flows indicate the extent of added value globally.

ACTIONS FOR ENVIRONMENT

CLIMATE-POSITIVE FORESTRY

Our business is based on sustainable forest management. We grow and harvest wood to produce renewable materials and products.

IMPACT

- Sustainable forest management is an important means to adapt to climate change
- Forests and wood-based products play a unique role in climate change mitigation
- Well-managed forests and plantations are a sustainable and efficient way to supply fibre for the increasing global demand
- Demand for wood-based products creates a strong economic incentive for land owners to grow and develop their sustainable forestry operations
- Forestry builds wealth and prosperity for local communities
- Sustainably managed forests provide clean air and water as well as recreation

TARGETS

- Climate-positive forestry and maintenance of carbon sinks
- Efficient production of high-quality wood for diverse end-uses
- Enhancing biodiversity
- Safeguarding forest ecosystem services

OUR WAY

- Third-party verified and certified wood origin monitoring systems to ensure full traceability
- No wood sourced from tropical rainforests or from plantations that have been established by converting natural forests to plantations
- No deforestation
- Respecting human rights and indigenous peoples' rights in all areas of operations
- No establishment of plantations in areas where water is scarce
- Strong stakeholder engagement
- Long-term biodiversity targets included in UPM's remuneration and financing
- UPM Forest Action programme
- Focus on 2030 responsibility targets

Finland and Uruguay are UPM's largest wood sourcing regions. At the end of 2023, we owned approximately 903,000 hectares of forest land in Finland, Uruguay and the USA. Most of this land is in Finland, totalling around 523,000 hectares. In Uruguay, we have about 304,000 hectares of eucalyptus plantations, grasslands and conservation areas, and in the USA 76,000 hectares of forest. We also lease about 170,000 hectares in Uruguay and manage about 1.5 million hectares of private forests in Finland. We apply the same strict sustainability standards everywhere we operate.

Globally, about 135,000 hectares (15%) of UPM-owned land is protected or in restricted use. Protected areas include valuable habitats, natural forests and other important areas such as wetlands or culturally important sites.

Of our four modern tree nurseries, three are located in Uruguay and one in Finland. In 2023, our newest nursery in central Uruguay was at full capacity to ensure the required annual planting capacity to supply the UPM Paso de los Toros pulp mill.

High-quality seedlings ensure good growing conditions for the forests. They are important not only for wood raw material production but also for carbon sequestration, restoration of biodiversity and increasing resilience to climate change.

Forest Action: the global forest responsibility programme

In 2023, we continued promoting our Forest Action programme that encompasses measurable actions under five focus areas: climate, biodiversity, water, soil, and social contribution.

Our main harvesting approach is to leave untouched buffer zones along watercourses.

Our forest inventory systems are updated annually to include the locations of valuable habitats and waterbodies in relation to wood harvesting activities.

In Uruguay, an institutional network has studied and monitored the water usage of eucalyptus plantations for decades. Eucalyptus plantations are not irrigated except for the nurseries. Tree plantations reduce rapid run-off through the soil surface, thus minimising soil erosion. Following the worst drought ever recorded in Uruguay in 2021–2023, we developed a procedure to characterise the drought's effect on the plantations using satellite images. Most affected areas are being harvested to minimise productivity losses.

In Finland, we were one of the funding partners in a national restoration project in 2022–2023 related to small inland waters. In 2023, we identified locations and set restoration targets for our own forests in Finland. In the USA, we continued our efforts in mixed forest restoration covering about 324 hectares. A new research partnership with the University of Minnesota will quantify the productivity and biodiversity benefits of mixed forest management. A new forest inventory collaboration with the Minnesota Department of Natural Resources will enable a more precise understanding of our forests, including their role as carbon sinks.

Forests and climate

We are committed to climate-positive forestry and to enhancing biodiversity in our own forests in Finland. Forests and forest biodiversity are critical for mitigating the effects of climate change. We ensure that our forests continue to act as carbon sinks, remain resilient and diverse in changing climate conditions and grow well for future generations.

UPM FORESTS AND PLANTATIONS		
	2008	2023
Forest and plantation land, own and leased (1,000 ha)	1,012	1,073
Forest growth (million m ³)	4.3	11.5
Wood harvested from UPM forests and plantations (million m ³)	2.2	7.0
Value of forests and plantations, including land (EURm)	1,270	3,301

The growth needs to exceed harvests for our forests to remain carbon sinks. The annual carbon sink from UPM-owned forests in Finland and the USA and owned and leased plantations in Uruguay has averaged -4.8 million tonnes of CO₂ equivalent over the past five years. There is ongoing work to harmonise methodologies and make calculations more accurate. The previous year's figure is therefore not fully comparable.

We aim to constantly improve our understanding of carbon. In 2022, we started a project with the Natural Resources Institute Finland (Luke) to improve soil carbon models for Uruguay with actual measurements on the ground. Field measurements in eucalyptus plantations began in 2023 and will continue for one year. An improved model for carbon calculations will be used for our 2024 carbon calculations.

Third-party verified supply chain

We always know the origin of the wood we use. We do not use wood from illegal sources or from areas where high conservation value forests could be under threat. Our wood procurement does not cause deforestation: forest cover is stable or increasing in all wood sourcing areas. We do not use genetically modified trees. Compliance with these requirements is verified by an independent third party.

All UPM-owned forests are certified or in the process of being certified if the site is new. In 2023, 91% of own forests were FSC™ and PEFC double-certified and 8% only PEFC (SFI) certified.

We also promote forest certification for private forest owners and other customers. We have established FSC™ group certification schemes in Finland and in Uruguay, which support small forest owners' access to certification. In 2023, the forest area covered

by UPM's FSC™ certification group covered approximately 570,000 hectares in Finland and over 13,000 hectares in Uruguay.

Since 2016, CDP has recognised us annually as a Forest A List company for our significant actions to mitigate climate change and prevent deforestation.

Cooperation with stakeholders

We have a long history of working with researchers, academic institutions, environmental organisations and other stakeholders to develop sustainable forest management.

In 2023, we initiated a forest pollinator project with Tapio Group in Finland. The project will provide us with comprehensive and up-to-date research-based working instructions for considering pollinators in final harvesting. Numerous pollinators use clear-cuts as so-called replacement habitats and find many of the resources they need there, but this aspect of biodiversity has not been specifically addressed in practice.

In the USA, we initiated stakeholder cooperation with local indigenous peoples' communities to learn more about their approach to forest management. We will strive to increase this type of work in the future.

In Uruguay, we collaborated with stakeholders and NGOs like Vida Silvestre

Uruguay, with which we jointly developed the management plan of the first protected area included in the National System of Protected Areas under the direction of a single private company (page 25).

We participated in forest and environmental stakeholder forums. In Finland, we took part in biodiversity roundtables coordinated by the Ministry of Environment and the Ministry of Agriculture and Forestry. We also continued our active cooperation with FSC™ International and PEFC to promote sustainable forest management globally.

- [Enhancing biodiversity on page 84](#)
- [Ensuring a responsible supply chain on page 78](#)
- [Sustainable product lifecycle on page 98](#)

IN ACTION

STUDY ON THE BIODIVERSITY OF CLEARCUT AREAS

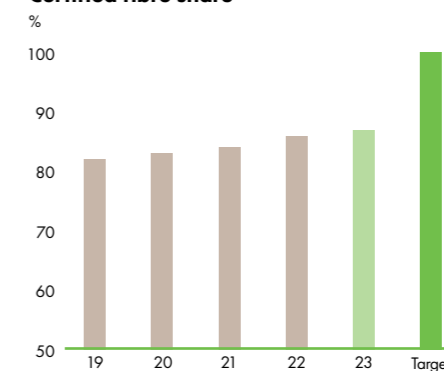
The study by the Natural Resources Institute Finland (Luke) aimed to investigate how the amount and quality of retained deadwood and retention trees and the time elapsed since a felling affect the diversity of polypore and saproxylic beetle species in the regeneration areas. The presence of rare and threatened species in the areas was of particular interest.

The study was carried out in UPM's forests in southern Finland. The study compared fellings carried out in three different periods, as the recommendations and guidelines for retention trees have varied over time.

The UPM regeneration areas were found to be inhabited by a vast range of polypore and saproxylic beetle species. The study shows that leaving decayed wood and retention trees has a positive effect on forest biodiversity. Regeneration areas can provide habitats for rare and threatened species that depend on decaying wood, and the prevalence of the species can be increased via ecological forest management measures. In UPM-owned forest regeneration areas, the amount of coarse decaying wood has clearly increased in recent decades, supporting the diversity of decaying wood-dependent species.

➤ www.upm.com/forests

Certified fibre share



100% certified fibre



87% achieved

ACTIONS FOR ENVIRONMENT

ENHANCING BIODIVERSITY

Biodiversity is instrumental to ensuring the vitality of our business.

IMPACT

- Healthy forests ensuring the vitality of our business
- Resilient forests to mitigate and adapt to climate change
- Increased diversity of habitats, species and thriving ecosystems

TARGET

- Enhancing biodiversity

OUR WAY

- Global forest biodiversity programme since 1998
- Global Forest Action programme since 2022
- Stream water programme since 2016
- Best available techniques used at production sites
- Indicator and monitoring development
- Biodiversity is linked to financing and management remuneration

Biodiversity refers to the diversity and variation of species and ecosystems on our planet. According to the UN, and despite ongoing efforts, biodiversity is deteriorating worldwide. This decline is projected to worsen if no action is taken. Mitigating climate change is the single most important action to safeguard biodiversity.

Enhancing biodiversity brings opportunities and reduces risks at the same time. Our operations are widely linked to biodiversity. Our most significant impacts on biodiversity take place in wood sourcing. Biodiversity is instrumental in maintaining healthy forest growth and ensuring that forests adapt to the changing climate.

Streams have been dammed or blocked, which has affected the flows and changed the living conditions of stream fauna. The potential depletion of oxygen caused by wastewater load deteriorates the living conditions in receiving watercourses. We improve local living conditions for fauna and flora at the production sites through removing obstacles in streams and reduced emissions, both to air and water.

We want to strengthen the role of biodiversity in our business. In 2020, we linked the margin of a EUR 750 million revolving credit facility to the biodiversity enhancement in UPM-owned forests in Finland. In 2022, we further strengthened this link by including biodiversity as a measure in UPM's management remuneration and in 2023, we implemented the Taskforce for Nature-related Financial Disclosures (TNFD) reporting framework (page 142).

We are also testing new scientific methods, such as e-DNA for measuring biodiversity and the impacts of our actions.

Forestry and biodiversity

We safeguard biodiversity in our own forests and continue to carry out our biodiversity activities as part of UPM's global Forest Action programme. Forest certification plays a crucial role in managing biodiversity both in our own forests and in other wood sources.

We are participating in a project led by FSC™ to better understand and quantify the positive impact that forest certification

has on biodiversity. We have also carried out several actions and projects to restore habitats, develop new ecologically sustainable forest management practices and improve ways to monitor and measure our impact on forest ecosystems.

We have had a target of net-positive impact on biodiversity in our own forests in Finland since 2018 and in Uruguay since 2022 with dedicated key performance indicators to measure the progress. At present, we have nine indicators in Finland: share of broad-leaved trees, amount of deadwood, forest age, forest structure, protected areas, valuable habitats, habitat restoration, species and habitat projects and indicator development.

In 2023, all the quantitative indicators measured showed a positive trend. The share of broad-leaved trees increased and the protected area continued to grow. New data on the amount of deadwood will be available in 2024 in connection with national forest inventory. The increased amount of deadwood in our forests had a direct link to the increased number of species dependent on deadwood.

In Uruguay, most plantations grow on grasslands formerly used for cattle grazing. The area's biodiversity values are assessed before the plantation is established, and valuable biodiversity hotspots and native forests are protected.

Our work focuses on the active management of protected habitats and the control of invasive species. In Uruguay, the area where we take some form of conservation measures covers altogether 75,000 hectares. This includes a network of 33 biodiversity reserves, covering more than 14,500 hectares. Each biodiversity reserve has specific management and monitoring plans.

The majority of species indicators from the last five years shows a positive trend of occurrence compared to the last 15 years. Continuous monitoring has allowed us to find 33 new species for Uruguay, and one new species for science as a whole.

In the US, we have developed a Smart Forestry™ method to use plant communities and ecological principles as a basis for silviculture practices and maintaining biodiversity. This method is based on ecological classification, which optimises both the value and the quality of forests based on the place of growth and tree species. All

harvest sites are managed so that deadwood is retained at sustainable levels.

Water and biodiversity

In Finland, our hydropower plants and other obstacles such as dams impact the environment by altering river or stream flows and their ecosystems. Our stream water programme strives to remove obstacles to fish migration, restore fish stocks throughout Finland and improve the living conditions of all stream fauna.

We have a target of opening 500 kilometres of obstacle-free streams by 2030 to steer our activities and to measure our impact on biodiversity. By the end of 2023, we managed to open 154 kilometres thanks to our own projects and 32 kilometres in joint projects funded by us. One such example was the restoration of the Hiitolanjoki river in Finland (on the left).

After the demolition of the Arvajankoski dam in 2022, our funding enabled research on migratory fish that has been carried out in the upper stream for 40 years to continue.

Enhancing biodiversity at the mill sites

In parallel to continuously monitoring our emissions, we also monitor our impact on waters, in particular.

Before any new mills are built, we conduct a baseline study to measure the level of biodiversity. At the new UPM Paso de los Toros pulp mill, we monitor the effluent discharge to the surrounding river as well as the quality and biology of the water.

We also monitor the emissions to air and the quality of the air and soil. Studies at the UPM Fray Bentos pulp mill show that mill operations have had no measurable negative impact on biodiversity since the start-up in 2007.

With older sites such as UPM Kymi, with a history of over 150 years, the impact of emissions to water close to the mill is compared to the respective impact upstream of the Kymi River. The latest results from 2022 indicate that the environmental impact of the UPM Kymi's wastewater load on the midge communities is low and that the benthic communities indicate a slightly oligotrophic condition of the river i.e. the level of nutrients is low.

Many mills actively enhance local biodiversity. We planted dedicated species in the

surrounding areas of the UPM Ettringen and the UPM Nordland paper mills in Germany to optimise conditions for birds and insects. At the UPM Schongau paper mill, we developed a concept to systematically assess and decrease the negative impacts of mill lighting on insects and the surrounding communities. The results and feedback have been positive and it has also reduced energy consumption.

- Value from responsibility on page 30
- Our 2030 responsibility targets on page 32

2030 TARGETS Positive impact on forest biodiversity

15 NET ON LAND Overall positive development measured in Finland and in Uruguay

SPOTLIGHT

SETTING SCIENCE-BASED TARGETS FOR NATURE CONSERVATION

We participate in the Science Based Targets Network (SBTN) Corporate Engagement Programme to develop methods, tools and guidelines for setting science-based targets for nature conservation. The network aims to provide companies and cities with a five-step framework to verify that their activities are within environmental limits without causing loss of nature. More than 100 companies from 30 countries are participating in the programme.

We have also been selected for the SBTN's Initial Target Validation Group, where, as the name suggests, UPM and 16 other companies will be the first to test the tools developed in their own operating environment.

The tools will be used to assess the impact of the company's activities on land use, land use change, water use and pollution and soil contamination. The aim of the assessment is to identify which of the activities have the greatest impact on biodiversity, set targets and develop an action plan for improvement. Participation supports our own biodiversity objectives.

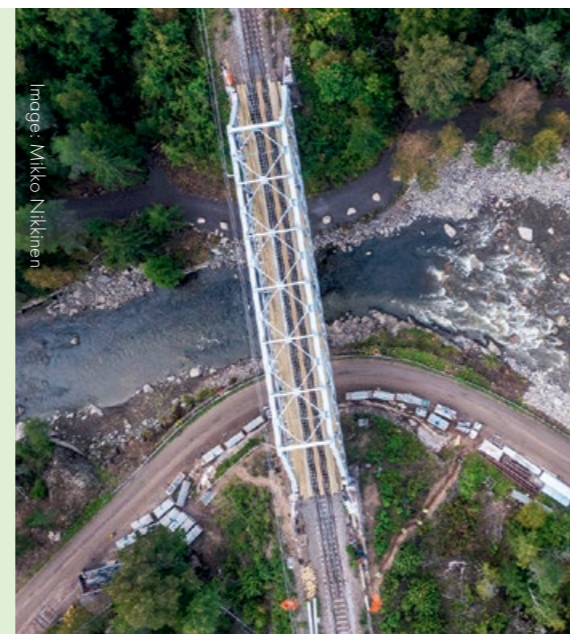
IN ACTION

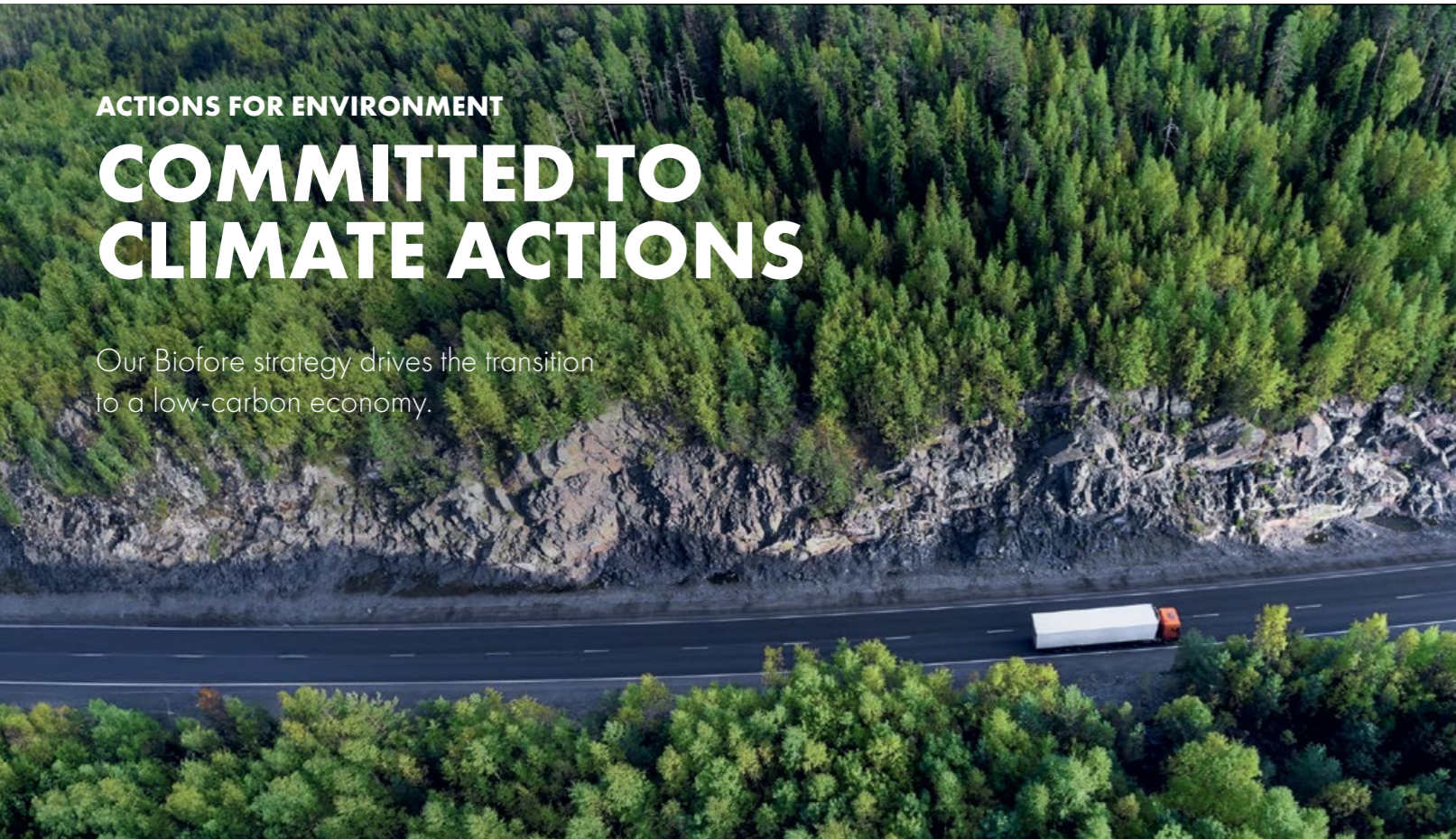
LANDLOCKED SALMON RETURNING TO THE RIVER

UPM has supported the demolition of the third dam on the Hiitolanjoki river and the return of Ladoga landlocked salmon to their old spawning waters in southeastern Finland. The landlocked salmon is a critically endangered species and it is important to enable the species to recover. Improving migratory fish routes and creating suitable spawning and nursery areas, as well as improving the habitats of other endangered species, are important measures for improving the biodiversity of inland waters.

The restoration will allow landlocked salmon to rise to their old spawning waters and improve the status of the aquatic habitat of the river. The first results of the project, which began in 2021, are promising in terms of salmon parr numbers. More detailed results for the whole river will be available in 2024.

The South Karelia Recreation Foundation (EKVAS) led the project, which was mainly funded by the Finnish Ministry of Agriculture and Forestry's Nousu programme. UPM's donation was part of the company's Biofore Share and Care programme. The aim of UPM's stream water programme is to release or restore 500 km of stream water by 2030.





ACTIONS FOR ENVIRONMENT

COMMITTED TO CLIMATE ACTIONS

Our Biofore strategy drives the transition to a low-carbon economy.

IMPACT

- Support the transition to a low-carbon economy

TARGETS

- Create climate solutions and innovate for a future beyond fossils
- Help limit the global temperature rise to 1.5°C

OUR WAY

- Ensure wood supply comes from sustainably managed forests and ensure a positive impact on land use
- Use energy efficiently and increase the share of renewable and low-emission energy
- Use and develop renewable and recyclable products, materials and solutions that replace fossil-based ones
- Focus on 2030 responsibility targets

Our Biofore strategy drives our transformation as a bioeconomy frontrunner. Our purpose is to create a future beyond fossils. Forests, wood-based products and low-carbon energy play a unique role, both in mitigating the effects of climate change and in our strategy. We have set ambitious targets for all these areas as part of our Group-level responsibility targets for 2030.

Towards net zero emissions

We are committed to the UN's Business Ambition for 1.5°C in a promise to pursue science-based measures to limit global temperature rise.

Our fossil CO₂ emissions reduction targets have been validated by the Science-Based Targets initiative (SBTi) to be aligned with the 1.5°C pathway as outlined in the Paris Agreement: 65% reduction in fossil CO₂ emissions (Scopes 1 and 2) from 2015 levels and 30% reduction of fossil CO₂ emissions from sourced materials and logistics (Scope 3) from 2018 levels by 2030.

We also have targets for climate-positive land use and developing a climate-positive product portfolio.

As a signatory to The Climate Pledge, we are committed to achieving net-zero annual carbon emissions by 2040. In 2023, as part of the UN Global Compact's Forward Faster initiative, we also committed to setting net-zero targets as defined by the SBTi.

At the end of 2022, we joined the GHG Protocol's pilot to test and provide feedback on its guidance for the forest and land use sector. Among other things, this guidance aims to define how to include biogenic carbon emissions and removals related to land use, as well as biogenic product-related and technological carbon removals. In 2023, we continued to conduct a feasibility study on our actual steps towards net-zero emissions and setting corresponding SBTi net-zero targets. The net-zero target setting process and the respective transition plan are expected to be completed in 2024.

TOWARDS NET-ZERO EMISSIONS

WE ACT THROUGH FORESTS

-4.8 MtCO₂eq
Carbon sink
Carbon absorbed in trees and soil

Long-term carbon storage
Long-term storage in trees and soils

WE ACT THROUGH EMISSION REDUCTIONS (SCOPE 1, 2, 3)

+3.7 MtCO₂
Scope 1 and 2 emissions
from own energy generation and purchased energy

+7.6 MtCO₂eq
Scope 3 emissions
from value chain (purchased goods and services, logistics, etc.)

WE ACT THROUGH PRODUCTS

-5.4 MtCO₂
Carbon substitution
Fossil energy substitution

+1.5 MtCO₂
Temporary carbon storage
Carbon stored in wood-based products' lifetime

-5.2 MtCO₂
Carbon substitution
Avoided emissions by replacing fossil-based products

We act through forests: Forests and forest biodiversity are critical for mitigating the effects of climate change. We ensure that our forests continue to act as carbon sinks, remain resilient and diverse in changing climate conditions and thrive for future generations.

Climate-related impacts, risks and opportunities

The physical impacts of climate change include more frequent and severe weather conditions which can increase droughts and forest fires. Climate change can lead to societal shifts with increasing social inequality and working poverty. Emissions from our operations and supply chain are contributing to climate change.

But we also make a positive impact. For example, we are reducing our fossil CO₂ emissions in our own operations and in the supply chain and manage our forests

We act through emissions: Minimising the use of fossil fuels and raw materials is the most important way to mitigate climate change. We favour renewable and other carbon-neutral energy sources and produce CO₂-free hydro and nuclear power in Finland. We are also committed to reducing the emission levels of our supply chain.

so that they act as carbon sinks. We also adapt to the changing climate and develop a climate-positive product portfolio. Our targets and actions focus on ensuring these positive developments.

Our position and resilience in different climate scenarios have been evaluated for our businesses and functions from both physical and transitional angles, with the expertise of the scientific community.

Generally, in low- and medium-emission scenarios the transition impacts play a bigger role and we are well positioned as our business portfolio allows for flexibility re-

We act through products: Innovating novel products beyond fossils is the core of our Biofore strategy. We develop safe and sustainable products that offer alternatives to fossil materials. Many of our products are already proven to be climate-positive.

garding recognised risks and opportunities.

In the high-emission scenario physical impacts dominate with severe consequences not only for UPM but for the ecosystems and societies across the globe.

- [Innovating climate-positive products on page 29](#)
- [Our 2030 responsibility targets on page 32](#)
- [Climate-positive forestry on page 82](#)
- [Development of Scope 1–3 emissions on page 90](#)
- [How we manage climate-related risks on pages 141–142](#)



ACTIONS FOR ENVIRONMENT

TOWARDS FOSSIL-FREE ENERGY

Our energy portfolio consists mainly of energy sources that do not cause fossil CO₂ emissions. More fossil-free electricity as well as expertise in optimising energy use is needed as the green transition moves forwards.

IMPACT

- Minimising the use of fossil fuels is the most important way to mitigate climate change
- Supporting the energy transformation
- Decarbonising traffic

TARGETS

- Significantly cut fossil CO₂ emissions across the whole supply chain and increase energy efficiency
- Minimise other air emissions in production and transportation

OUR WAY

- Committed to the UN Business Ambition for 1.5°C and The Climate Pledge
- Continuously improving our energy efficiency and increasing our share of renewable and low-emission energy
- Market-based operations: optimising our energy use and offering flexibility for the grid and the markets
- Science-based targets of our CO₂ emissions reduction
- Use of Best Available Techniques (BAT)
- Focus on 2030 responsibility targets

2030 TARGETS 65% reduction of UPM's total CO₂ emissions (Scope 1 and 2) from 2015 level

13 CLIMATE ACTION **45%** reduction achieved

2030 TARGETS 20% reduction of acidifying flue gases from 2015 level

12 RESPONSIBLE CONSUMPTION AND PRODUCTION **17%** achieved for the UPM average product

One year closer to the climate targets of 2030 and fossil fuels consumption is yet to reach its peak, according to estimates from the International Energy Agency (IEA). The global energy sector accounts for the majority of all greenhouse gas emissions. To cut these emissions, more renewable and CO₂-free energy is required. Investments in green energy are on the rise and a new record was set for global wind power capacity built in 2023.

However, wind and solar power production are dependent on weather conditions. This increases volatility in both electricity supply and prices. The transforming energy system needs nuclear power for stability, hydropower and thermal power plants for balance, and innovations for efficiency and electricity storage capability.

The energy crisis caused by Russia's war in Ukraine has eased, but the roots of the crisis remain. Europe is still looking for ways to replace natural gas formerly imported from Russia and the use of fossil fuels is high, especially in Central Europe. To mitigate climate change, fossil-based emissions need to be cut. This will accelerate the electrification of society and drive the demand for low-emission electricity.

Expertise in flexibility

UPM is the second largest electricity producer in Finland but also the largest consumer of electricity. Being both a producer and consumer has brought us valuable expertise now that price and supply volatility has become the new normal on electricity markets. We contribute to maintaining the balance of the electricity system by helping when there is a risk of electricity shortages, either by reducing consumption at our paper mills or by increasing production at our hydropower plants.

This is also good business for us, as we optimise both our electricity production and consumption according to the price and demand of electricity, i.e. to meet the needs of the electricity system.

We are consistently developing our energy portfolio, managing our CO₂-free electricity generation assets in UPM Energy and switching our energy-consuming businesses to lower-emission energy sources. We are contributing to the decarbonisation of the electricity system by growing the supply of reliable, CO₂-free electricity.

We generate significantly more electricity than we consume, and this net selling position increased to over 7 TWh with the new OL3 nuclear power plant unit in Finland and the new UPM Paso de los Toros pulp mill in Uruguay.

Exploring possibilities in transformation

Even though getting rid of fossil fuels means intensifying the electrification of society, electrification of the economy as a whole is not possible. We also need other solutions to mitigate climate change. UPM Biofuels is supplying renewable fuels for decarbonising traffic. We are also studying business cases for utilising clean and green hydrogen and biogenic CO₂ to possibly produce synthetic fuels and chemicals in the future (page 91).

The energy crisis caused energy prices to rise in Europe. It has also increased the risks related to political interventions and changes in energy market regulation and taxation. It is crucial that such measures do not reduce incentives for energy investments that are driving the transition to a low-carbon economy. Regulatory measures should not interfere with the market price signal, which is needed to balance the electricity markets in all circumstances.

We favour the use of renewable and other carbon-neutral energy sources. UPM Energy is a major electricity provider in Finland with assets in Finnish hydropower and nuclear power, as well as thermal power to a lesser extent. Hydropower is the most effective and sustainable method of producing balancing power for the increased volatility of the electricity grid. UPM Energy completed the extensive modernisation of the Kuusankoski hydropower plant in the spring of 2023.

Nuclear power provides reliable baseload generation of electricity; it relies on Finland's unique and safe solution for final disposal of spent fuel. 99% of UPM Energy's electricity is CO₂-free. The start of operations at OL3 in May 2023 increased UPM Energy's CO₂-free electricity generation by nearly 50%.

Energy action at our production sites

The majority of our energy consumption is due to production processes at the paper and pulp mills, where electricity and heat are needed for mechanical pulping, pumping and drying. We generate steam and electricity through combined heat and power (CHP) plants. Biomass-based fuels

account for 76% (65%) of our fuel usage at production sites. The increase is mainly due to our new pulp mill in Uruguay. At some mills, all or part of the required energy is produced by external or co-owned power plants or provided by UPM Energy.

In 2023, we invested in electric boilers for heat and steam production at our mills in Finland and Germany, mainly to replace the use of natural gas. The boilers will improve security of heat and steam generation and reduce emissions depending on replaced fuels and purchased electricity's CO₂ factors (page 49).

UPM Hürth's biomass boiler, invested by E.ON, will supply carbon-neutral heat and electricity to the mill and the public power grid from 2024 onwards. The use of biomass, such as residual wood from the region, reduces fossil CO₂ emissions. A new Finnish wind farm has been supplying renewable energy to UPM's paper mills since the beginning of 2023.

We are contributing to the decarbonisation of the electricity system by growing the supply of reliable, CO₂-free electricity.

We are especially looking for ways to improve our energy efficiency across our operations with audits, innovations and investments. Improvements usually lead to a reduction in CO₂ and other air emissions as well.

Our measures in 2023 include new vacuum blowers to replace energy-consuming pump systems and a new efficient grinding stone, which will significantly reduce electricity use and CO₂ emissions at the UPM Caledonian paper mill in the UK.

We carry out studies to evaluate the use of heat exchangers and heat storage at our paper and pulp mills. UPM Schongau continued with the installation of a new heat exchanger at its TMP plant. The project will be finalised in 2024.

UPM Jämsänkoski has invested in a high capacity line for its TMP plant, increasing energy efficiency and decreasing the need for electricity. UPM Tervasaari replaced

process gas with electricity for the paper machine. The UPM Fray Bentos pulp mill in Uruguay invested in a lime kiln so that it can burn hydrogen, a by-product from a neighbouring company, reducing the use of fuel oil.

UPM Plywood launched projects to reduce steam consumption and air emissions by preheating and improved heat recovery at the UPM Pellos plywood mill. These measures and investments are expected to lead to an annual reduction in fossil CO₂ emissions of around 40,000 tonnes.

UPM Timber installed a new heat pump system at the UPM Korkeakoski sawmill.

The system will use the waste heat from the sawn timber drying instead of heat from the mill's own power plant. This will decrease SO₂ and NO_x emissions as well as energy use.

As a result of our energy-saving investments and actions taken in 2023, we reduced our energy costs by EUR 4.0 million (8.5 million), avoided emitting 18,900 (34,900) tonnes of CO₂ and achieved a 66,000 (114,000) MWh reduction in energy consumption. The annual savings were EUR 4.6 million (9.5 million), 28,900 (40,500) tonnes of CO₂ and 94,000 (126,000) MWh of energy.

Follow-up on our energy and CO₂ targets

In 2023, we decreased our fossil CO₂ emissions from energy generation (Scope 1) and purchased energy (Scope 2) by 17% compared to the previous year, which is in line with our 65% reduction target for 2030. In addition to capacity adjustments, the main reason for the reduction was a decrease in CO₂ emissions related to electricity purchases.

Coal and peat usage decreased by 13% compared to 2022. Our target is to stop using coal and peat for on-site energy generation by 2030. Currently, coal is the main fuel at the

ELECTRICITY GENERATION THROUGH OWN POWER PLANTS AND SHAREHOLDINGS

TWh	2023	2022
Mill CHP	5.2	4.3
Hydropower	3.3	3.0
Nuclear power	8.0	5.4
Thermal power	0.1	0.5
Total	16.6	13.2

ELECTRICITY CONSUMPTION

TWh	2023	2022
Total	9.6	9.7

CAPACITY TO GENERATE POWER THROUGH OWN POWER PLANTS AND SHAREHOLDINGS

	Nominal MW
Hydropower	729
Nuclear power	1,089
Thermal power	133
UPM Energy in total	1,951

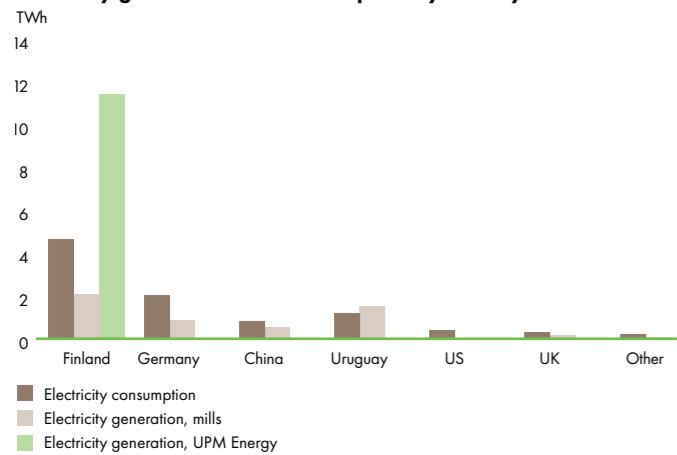
Mill site combined heat and power (CHP)	1,250
Mill site hydropower	7

Mill site power generation in total	1,257
Total UPM	3,208

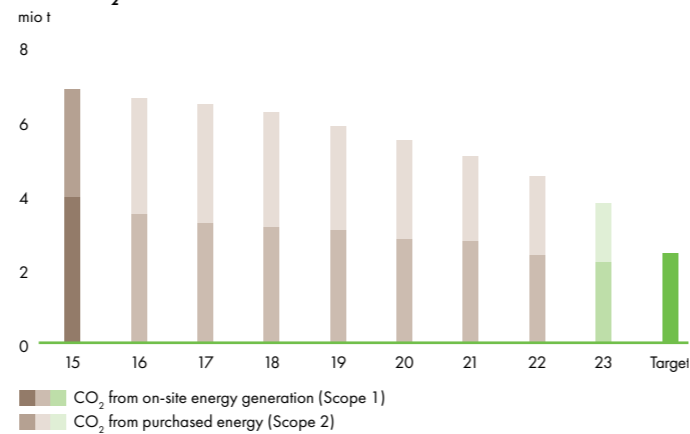
FUEL AND HEAT RESOURCES USED

TWh	2023	2022
Black liquor	24.5	14.3
Bark and other biomass	5.2	5.2
Heat recovered from TMP production	0.7	0.6
Renewable fuels total	30.4	20.1
Peat	0.2	0.6
Purchased heat	0.3	0.4
Natural gas	4.9	6.3
Oil	1.5	0.9
Coal	2.4	2.5
Fossil recovered fuel	0.2	0.2
Total	39.9	31.0

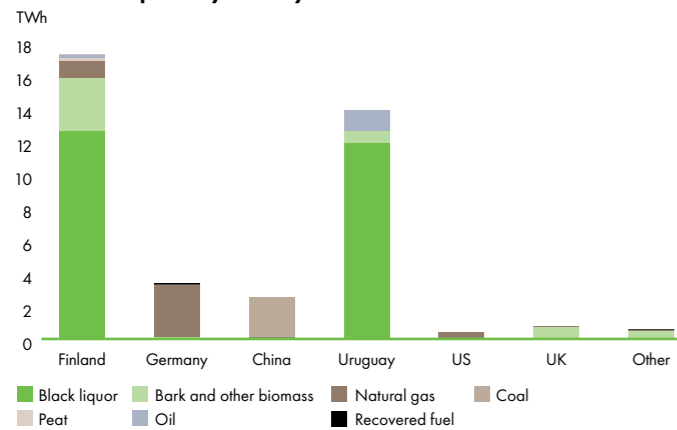
Electricity generation and consumption by country 2023



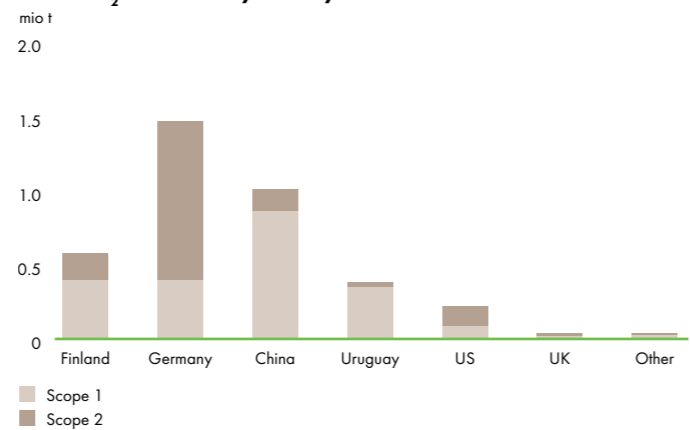
Fossil CO₂ emissions



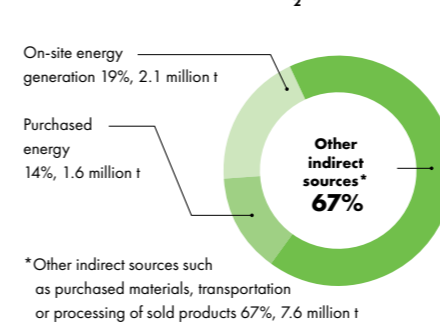
Fuel consumption by country 2023



Fossil CO₂ emissions by country 2023



Sources of UPM's fossil CO₂ emissions



UPM Changshu paper mill in China, where alternatives have not been available historically. Peat is used in Finland.

We are in line to meet our 2030 target for acidifying flue gases (NO_x and SO_x) despite the increase of emissions in 2023 with the start-up of our new pulp mill in Uruguay. We did not reach our target of increasing energy efficiency by 1% annually.

Collaboration with suppliers to reduce CO₂ emissions

We also evaluate the emissions from other indirect sources (Scope 3), such as purchased materials, transportation and the processing of sold products. In 2023, we conducted a thorough review of the scope and used secondary factors in our Scope 3 calculation.

For comparison over time, we also updated the year 2018, the baseline for our target. The review resulted in an increase

of about 2 million tonnes CO₂ equivalents, mainly due to the expanded reporting scope. In 2023, our total Scope 3 emissions were 7.6 million tonnes, a reduction of 16% compared to 2018.

Our target is to reduce the fossil CO₂ emissions from materials and logistics by 30% by 2030 (from 2018 levels). These account for a significant share of our total Scope 3 emissions. To achieve this, we launched the -30 by 30 programme in 2022. New and existing suppliers are required to provide data on the carbon footprint of the goods and services sold to UPM, including all relevant emissions from the supplier's own upstream supply chain and operations. In 2023, we achieved a reduction of 23% compared to 2018 for the target scope.

Already 57% of our pigment supplies are covered by primary CO₂ emissions data from suppliers and over 62% of our deliveries are calculated based on supplier data. In 2023, we started to use new dual-fuelled LNG vessels on European sea routes.

TRANSFORMATION STORY

LONG-TERM FUTURE BUSINESS OPPORTUNITIES

We see future business opportunities in carbon removal, storage, and utilisation. Wood-based products store CO₂ and replace fossil products. In the future, the biogenic CO₂ generated as a by-product of wood-based processes can serve as a raw material for new carbon-neutral synthetic fuels and materials.

We have biogenic CO₂, low-emission hydro and nuclear power, and experience in the use of hydrogen in the Lappeenranta biorefinery. Technically, carbon removal technology is already fairly mature, but long-term storage solutions have only recently started being developed.

However, carbon removal, storage and utilisation require huge investments in equipment and logistics infrastructure. The storage potential is outside Finland and recovery requires significant hydrogen production and a large amount of clean and competitively priced electricity, in addition to the investment. From a business perspective, the development of technical carbon sinks requires clear rules and predictable policies, including a link to the carbon pricing mechanism and sufficient R&D funding for the coming years.

ACTIONS FOR ENVIRONMENT

RESPONSIBLE WATER MANAGEMENT

Water plays a crucial role in our business, from sustainable forestry to production and logistics. It is also an important source of renewable energy.

IMPACT

- Our measures ensure that the impact of our operations on watercourses are known and minimised so that clean water is available for surrounding communities
- Our efforts to protect and restore aquatic ecosystems enhance the quality of watercourses and the natural habitat of species that live in them

TARGETS

- Use water responsibly
- Continuously reduce the effluent load and wastewater volume generated by our operations
- Use only nutrients from recycled sources in wastewater treatment

OUR WAY

- Water-intensive operations in areas with sufficient water resources
- Efficient water use with appropriate recycling techniques
- All water-related processes managed according to the Best Available Techniques (BAT)
- Best practice sharing in internal and external expert networks
- Returning water to its original watershed when possible
- Cooperation with local stakeholders to further improve the quality of local waterways
- Focus on 2030 responsibility targets

As a signatory of the UN Global Compact's CEO Water Mandate, we follow recognised principles in water stewardship. We use water in a way that is environmentally sustainable, socially equitable and economically beneficial.

CDP recognised UPM with an A- score for its significant actions to enhance water stewardship.

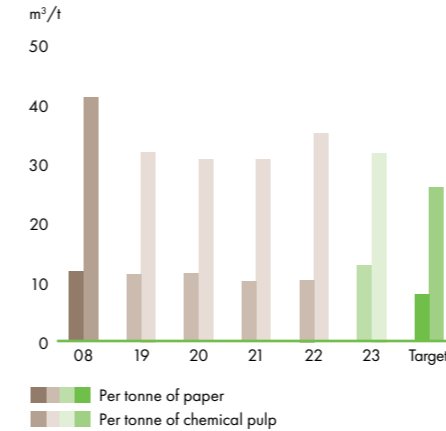
Our water management

Pulp and paper production is our most water-intensive operation. Approximately 95% of the water we use in production is internally recirculated, and only a small fraction eventually leaves the process as effluent and needs to be replaced. Less water in processes also means using less energy and fewer chemicals.

All wastewater from our pulp and paper mills is cleaned in both mechanical and biological effluent treatment processes. Purified water is usually returned to the same watershed from which it was extracted.

According to the water risk analysis carried out with the WWF Water Risk Filter in 2021, our production sites are in areas with

Process wastewater volumes



All our water risk scenarios are publicly available on our website.

low to medium water scarcity. The tool also provides scenarios on water risks related to climate change for 2030 and 2050. The scenarios show that our main production sites are in areas of low to medium basin risk, with only one exception. While the UPM Changshu paper mill near Shanghai is expected to face the highest rise in water risk by 2050, the mill has made substantial improvements in water efficiency in recent years. The latest project in 2023 focused on wastewater recovery and reuse and resulted in estimated water savings of at least 1,000 cubic metres per day.

Continuous improvement towards 2030 targets

Each pulp and paper mill has a dedicated plan to reach its reduction targets related to water use and effluent load by 2030.

Several mills have started to use advanced process controls and predictive analytic models to optimise their wastewater treatment plant operations. Together with the supplier, a new method based on image analysis of bio-sludges was put to use at the UPM Kymi mill and tested at UPM Kaukas

to improve the monitoring of the effluent treatment process.

The UPM Augsburg paper mill in Germany successfully tested and installed a new filtration process to replace warm water used in paper machine showers. The technology will allow the mill to reduce water use even further from an already 'best of the class' level.

In 2023, the UPM Caledonian paper mill in Scotland managed to reduce its freshwater consumption by 525 cubic metres per day through various process improvements such as filtering process water for reuse, optimising tank cleaning, and improving tank level control. Replacing a disc in a filter also yielded water and fibre savings. The installed turbo blowers on the paper machine vacuum system will allow the decommissioning of a cooling tower, saving both energy and water.

We have a target to use 100% of the nutrients from recycled sources in our effluent treatment by 2030. In 2023, 33% (33%) was achieved, for example by replacing urea with the side stream product ammonia or with reject waters from composting and biogas plants.

Collaboration with stakeholders

In 2021, we joined the project 'Circular economy of water in industrial processes' together with several industrial and academic partners. The project ended in 2023, and, as a result of it, a laboratory measurement method for microplastics in forest industry waters was developed, together with universities, in our research centre in Lappeenranta.

In Uruguay, we continue to support the Rio Negro Initiative to improve the state of the river.

www.upm.com/responsibility/fundamentals/scenario-work/



IN ACTION

SODIUM HYDROXIDE LEAK IN THE CHEMICAL STORAGE AREA OF THE NEW PULP MILL

Despite our high standards of process control, sodium hydroxide, a chemical commonly used in pulp production, leaked into the water basin at the chemical storage area of the Paso de los Toros mill in August.

The sodium hydroxide mixed with rainwater leaked from a stormwater basin through the soil into a nearby creek, causing the pH level of the water in the creek to temporarily increase. The leak caused mortality in the aquatic animals of the creek during the leak. The creek flows first into a lagoon and then into the Río Negro river, where the impact of the leak was very limited in quantity and duration.

We immediately took all of the necessary corrective measures and notified the environmental authorities and the local community about the incident.

We have investigated the causes of the incident with DINACEA, the Uruguayan environmental authority, and have implemented all the necessary and immediate corrective measures in accordance with the authority's instructions. We take all environmental deviations seriously. Our environmental management processes, controls and monitoring systems are rigorous worldwide and incidents of this type are very rare.

Uruguay's Ministry of Environment imposed a sanction of approx. USD 188,000 on UPM for non-compliance with the environmental management plan for the pulp mill.

2030 TARGETS 30% reduction of wastewater volumes from 2008 level

7% reduction achieved for the UPM average product

2030 TARGETS 40% reduction in effluent load (COD) from 2008 level

39% reduction achieved for the UPM average product



ACTIONS FOR ENVIRONMENT

ADVANCING A CIRCULAR BIOECONOMY

We use materials, energy and water efficiently, and many of our products are made from side streams, residues or recovered materials.

IMPACT

- Resource efficiency and a circular bioeconomy respond to resource scarcity, contribute to climate change mitigation and provide new sustainable solutions for customers and consumers

TARGET

- Efficient use of all material streams and the implementation of a circular bioeconomy; renew, reduce, reuse, recycle and recover

OUR WAY

- Circularity as part of our Sustainable Product Design concept
- Renewable raw materials from sustainably managed forests
- Circular use of materials, nutrients and water
- Use of residues, side streams and recovered materials
- Cross-industry and cross-business collaboration
- Focus on 2030 responsibility targets

Our goal is to minimise waste, maximise the utilisation of side streams and create added value through smart solutions. We are constantly looking for partners to co-create circular innovations linked to side stream use and valorisation and supply chain efficiency.

In response to climate change, we are actively developing new solutions to accelerate the transition to a circular bioeconomy and we aim to continuously reduce our environmental impact.

Our sustainable product design concept includes circularity aspects throughout

IN ACTION



NEW BUSINESS FOR THE CIRCULAR ECONOMY

We have been researching the reuse of green liquor dregs for a long time and have been actively finding solutions for this process waste, most of which is still sent to landfills. After extensive trials in 2023, we are now one step closer to creating a responsible and profitable business for the side streams generated from pulp mills.

UPM and Tapojärvi Oy, a Finnish specialist in mining and mill services, tested green liquor dregs and other industrial side streams in industrial-scale trials in Valkeakoski. They

used the decommissioned lime kiln of UPM Tervasaari's disused pulp mill as the testing site. Based on these trials, the companies have now developed a soil stabiliser for the civil engineering industry that meets the technical requirements.

The collaboration will continue in 2024, with the aim of finetuning the process to the final production stage and testing the performance of the final product in various applications. These activities will enable us to solve the challenge of 30,000 tonnes (dry weight) of green liquor dregs generated annually at the three pulp mills in Finland.

the product lifecycle. Our environmental 2030 targets ensure resource efficiency and contribute to the UN's Sustainable Development Goals.

Our circularity targets

By 2030, we will not deposit any process waste at landfill sites and process waste will not be incinerated without recovering the energy. On average in 2023, 87% (90%) of our process waste was recycled or recovered, 30% of which comprises energy recovery. Today, 60% (58%) of our production sites use 100% of the process waste. The total amount of waste to landfill increased by 50% (decrease of 40%) compared to 2022, mainly due to the start-up of our new pulp mill in Uruguay.

Our other circularity target is to use 100% of nutrients from recycled sources in our own effluent treatment plants by 2030. In 2023, 33% (33%) was achieved.

We share best practices, research results and ideas throughout the company, and have several internal working groups focusing on the use of side streams and the recycling of nutrients. Green liquor dregs are a side stream originating from pulp production and one of our most challenging process waste to reuse. We are putting a lot of effort into developing ways to find a sustainable use for it (below).

Making use of residues, side streams and recovered materials

Most of our organic production residues, such as bark, wood residues and fibre-con-

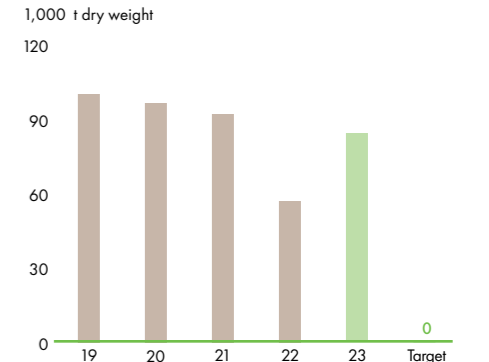
taining sludges from deinking and effluent treatment, are used to generate energy for mill sites. Some fibrous residues are used in brick manufacturing or as soil amendment materials.

Overall, ash originating from biomass-based energy generation makes up the largest share of our solid waste. In 2023, 93% (97%) of the ash was used in various applications such as soil stabilisation and the cement industry and used internally to replace caustic soda or as a raw material for paper filler production.

UPM BioVerno renewable diesel and naphtha are produced from crude tall oil, a residue from chemical pulp production. For decades, we have been researching new innovative uses for lignin, a side stream from pulp production. A good example is our WISA BioBond gluing technology, where lignin is used to replace most of the fossil-based phenol used in plywood production. Lime is a side stream of pulp production and can be used as a liming agent or for pH adjustment.

We are also actively enhancing circularity over the product lifecycle by using recovered materials. UPM Raflatac collects label waste from more than 440 partners globally and recycles it with its RafCycle® service. The service takes self-adhesive label waste and gives it new life as various paper grades, insulation materials, PET products and biocomposite material. We also have a long history of using recovered paper to produce new

Process waste to landfills



2030 TARGETS No process waste to landfills or to incineration without energy recovery

12 RESPONSIBLE CONSUMPTION AND PRODUCTION **87%** recycling or recovery achieved for our total process waste

2030 TARGETS 100% of nutrients used at effluent treatment from recycled sources

6 CLEAN WATER AND SANITATION **33%** achieved

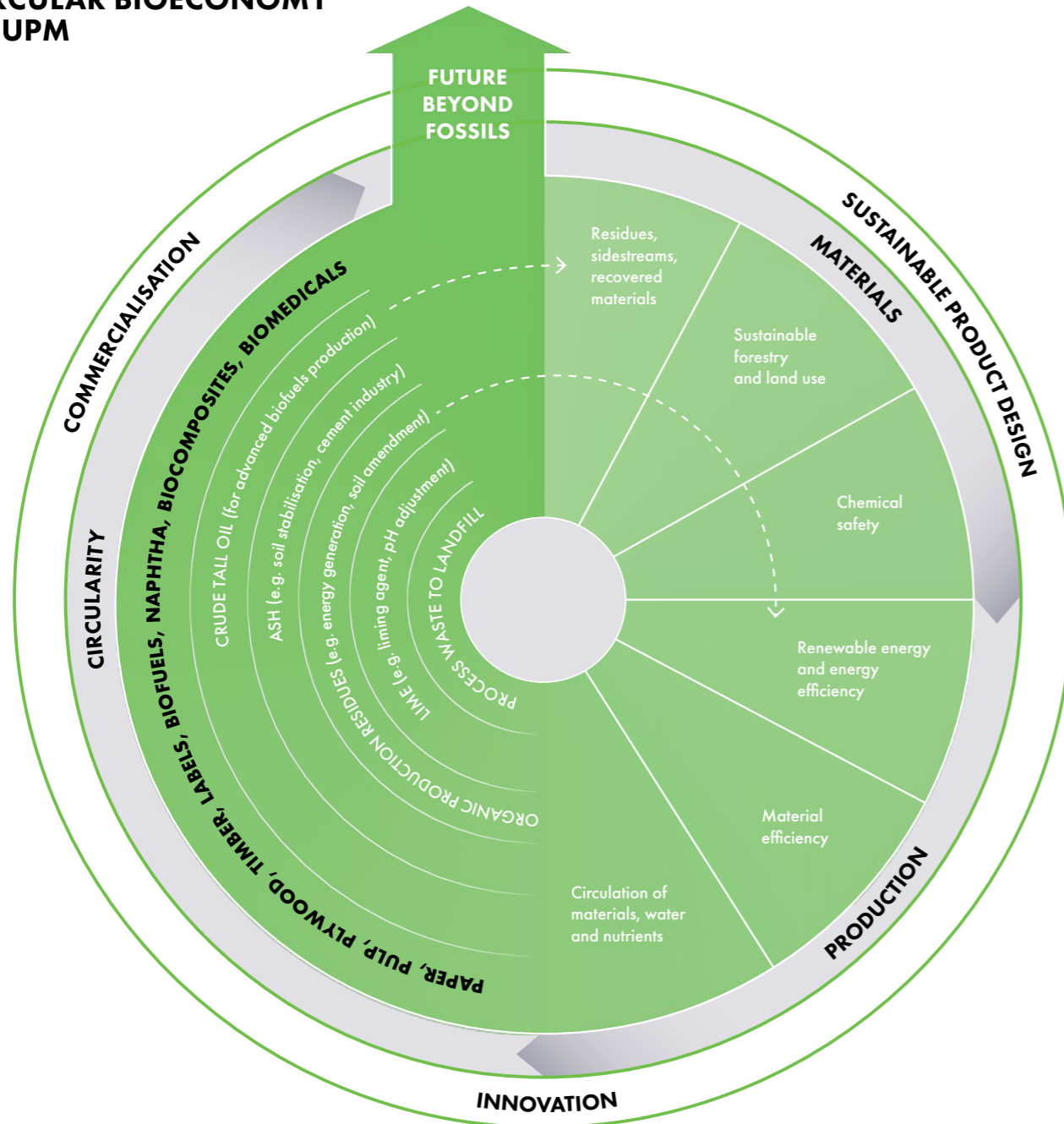
graphic paper. In 2023, we used approximately 0.8 (1.4) million tonnes of recovered paper. Recycled fibres accounted for 17% (24%) of all fibre materials used in UPM's paper production.

Active engagement with circular economy networks

We are a member of INGEDE (International Association of the Deinking Industry) and a shareholder in CLIC Innovation Ltd, a Finnish open innovation cluster with the

aim of finding breakthrough solutions in bioeconomy, circular economy and energy systems. We are also a member of 4evergreen, a cross-industry alliance to promote low-carbon and circular fibre-based packaging. The alliance aims to achieve a 90% recycling rate

CIRCULAR BIOECONOMY AT UPM



We minimise waste and maximise the reuse of materials and side streams.

for fibre-based packaging by 2030 throughout Europe.

UPM Raflatac is an active member of the Ellen MacArthur Foundation, the global thought leader in the transition towards a circular economy. UPM Specialty Papers and UPM Raflatac are members of CELAB, which further promotes the development of a circular business model in the self-adhesive label industry.

In 2023, we continued to participate in the preparation process of the Finn-

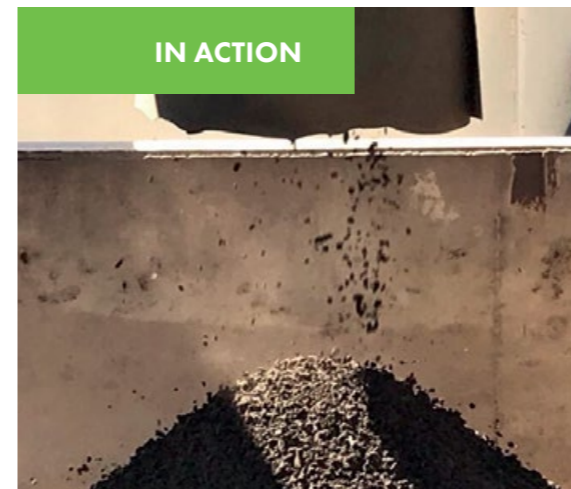
ish Circular Economy Green Deal and, together with Pohjolan Voima, in the Finnish UUMA4 programme, which aims to enhance the use of secondary raw materials in earth construction. During 2023, our Raflatac business also participated in the Circular Design training program to get new ideas, tools and partnerships to drive circular labelling solutions.

We are also participating in the ISO standardisation of Circular Economy and are actively collaborating with various stakeholders

to enhance circularity. For example, we are collaborating with our paper machine clothing suppliers to find ways to recycle these fabrics after their use at the paper machine.

In autumn 2023, we carried out a LinkedIn campaign to find potential new recycled nutrient suppliers for our mills. The campaign identified some partners with whom we are continuing discussions.

- > Innovation for the future on page 28
- > Sustainable product lifecycle on page 98



IN ACTION

FROM PULP PRODUCTION WASTE TO RAW MATERIAL

UPM Fray Bentos pulp mill and Cementos Artigas, a Uruguayan company specialising in the production and commercialisation of cements, concretes, and derivatives, are redefining industrial waste management.

The collaboration project, which started in September 2023, transforms waste from pulp pro-

duction, in particular a mix of biological sludge from effluent treatment with phosphorus precipitation sludge, into valuable resources. Cementos Artigas will efficiently use all the dry mixed sludge as a non-fossil fuel source and turn the inorganic part of the sludge into a raw material for a cement product.

In addition to reuse, the process will reduce fossil carbon dioxide emissions by approximately 20,000 tonnes per year.

ACTIONS FOR ENVIRONMENT

SUSTAINABLE PRODUCT LIFECYCLE

Our products help to mitigate climate change by replacing fossil-based products and materials with renewable alternatives.

We actively develop solutions where the sustainability of the whole product lifecycle from raw material sourcing to circularity is considered. Our target is to provide products that improve our customers' business processes and performance, creating mutual benefit and societal value.

Our innovative and sustainable wood-based biomedical products, as well as our pharmaceutical and healthcare labelling solutions, are examples of where we create direct societal impact. In the future, our wood-based biochemicals will offer renewable alternatives for many consumer products in packaging, automotive, textiles and various industrial segments. Many of our products are made from side streams and residues or from materials recovered after product use, thus supporting a circular bioeconomy.

IMPACT

- Bio-based and recyclable raw materials and products reduce the world's dependency on fossil-based raw materials and contribute to climate change mitigation
- We offer sustainable everyday products to customers and consumers

TARGETS

- Creating innovative renewable and responsible solutions for a future beyond fossils
- Taking care of the entire lifecycle

Continuous dialogue and collaboration with customers

UPM's businesses offer a variety of products and services. Each business has its own customer relationship management process

OUR WAY

- Use of a sustainable product design concept in product development
- Improved chemical management to enhance product safety
- Strong commitment to long-term customer relationships
- Cooperation across the value chain
- Open and transparent product communication supported by ecolabels, certificates and product declarations
- Focus on 2030 responsibility targets

and way of interacting with customers. A comprehensive understanding of each market, as well as the knowledge of the end uses of products and the needs of our customers, underpins our approach.

We maintain a continuous dialogue with our customers and we engage in various product-related development projects with them. Our businesses conduct regular customer-satisfaction surveys. The surveys also help us to define our areas of improvement.

Based on these results, overall satisfaction with UPM as a supplier is 85% (84%). Actions to mitigate climate change and enhance biodiversity remain the highest priorities of our customers. Product safety, sustainable forest management, recyclability, circularity and ecolabels are also highly valued.

Sustainable product design

Our Sustainable Product Design concept implementation continued in 2023. We carried out screenings in the early stages

of product development using a tool which we developed for mapping impacts on the UN Sustainable Development Goals (SDGs). Based on the feedback, we continued to develop the tool with revision and adaptation of the included questions. The concept was also tested to investigate product reuse with UPM Biocomposites and UPM Raflatac.

Life Cycle Assessment (LCA) and carbon footprint are key tools in our concept. We use LCA for calculating potential environmental impacts of new raw materials or new products. Using LCA supports decision-making in the product development and provides evidence of substantiation for the environmental claims related to products entering or already available on the markets.

Carbon footprint had an important role in the development of lignin-based resin used in the Wisa BioBond adhesive technology, which is used in all WISA spruce plywood products. Other tools used in our concept include biodegradability and recyclability testing.

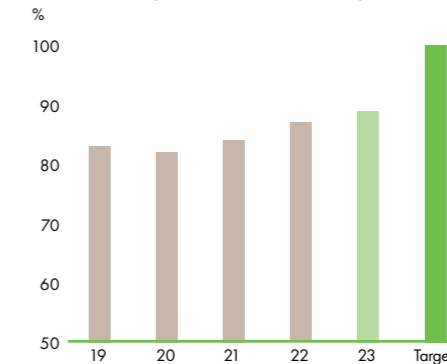
Product safety requirements

The ISO 9001 and ISO 22000 quality and food safety management systems provide a framework for continuously improving our performance. All our production sites are ISO 9001 certified, except for our new UPM Paso de los Toros pulp mill in Uruguay which started production in April 2023 and for which the standard application is still in process.

UPM Raflatac sites (excluding two new sites), UPM Specialty Papers production lines in Europe, UPM Kymi paper mill and all UPM pulp mills are ISO 22000 certified, except for the UPM Paso de los Toros pulp mill in Uruguay for which the standard application is still in process. The UPM Changshu paper machine 3 in China has both a ISO 22000 certified food safety management system and a FSSC 22000 certified food safety management system. This allows us to offer several products that are designed and produced to meet food packaging requirements.

In 2023, we communicated our product safety requirements to customers and to suppliers of chemicals and raw materials. We worked with several paper and chemical companies to increase supply chain

Products eligible for ecolabelling



100% of applicable products eligible for ecolabelling



89% achieved

transparency and speed up information exchange. The harmonised questionnaire and the tool as a result of this cooperation allows us to ensure that our products comply with laws and requirements, such as EU ecolabel criteria. To support customer communications, we provide product safety profiles and statements of chemical substances that aren't used in our products.

UPM's Chemical Management Standard requires a careful assessment of the chemical hazard properties. All chemicals selected for use are required to have the lowest possible adverse effects on human health, the environment and the safety of UPM's products. The list of restricted chemical substances includes substances with selected hazard classifications, substances on the European Chemicals Agency's (ECHA) list of substances of very high concern (SVHC) or substances with endocrine disrupting effects. At UPM, a similar list has been in place since 2010.

Ecolabels and product declarations increase transparency

We provide environmental data and product declarations for most of our products to help customers to make sustainable choices.

Most of our products are certified with widely recognised international and regional ecolabels, such as EU Ecolabel. UPM Biofuels, UPM Formi and UPM pulps also have ISCC (International Sustainability and Carbon Certification) and four UPM Raflatac factories have ISCC PLUS certification. UPM Biofuels also has Roundtable of Sustainable Biofuels (RSB) certification.

All our businesses have FSC™ and/or PEFC chain of custody certification. It verifies the origin of wood and guarantees that all wood used in our products is legally harvested from sustainably managed forests and does not originate from controversial sources.

In 2023, we created internal guidelines on how to communicate our sustainability claims (below).

- > Innovation for the future on page 28
- > Ensuring responsible supply chain on page 78
- > Climate-positive forestry on page 82

IN ACTION

HELPING BUSINESSES IMPLEMENT THEIR SUSTAINABILITY CLAIMS

The EU and many other countries are gradually implementing stricter regulations on sustainability-related marketing and communications. The aim is to protect consumers with reliable and transparent sustainability claims made by companies.

To prepare us for future requirements, we have created the UPM Sustainability Claims Guideline with accompanying practical instructions. These will ensure that claims and related marketing and communication materials comply with legislation and do not risk our brand or reputation.

The global instructions are designed to be used in all businesses and functions. Moreover, businesses need to familiarise themselves with and comply with national legislation and frameworks.

We are also developing an internal Sustainability Claims Glossary to provide additional guidance on the use of accurate terminology. The mandatory training for selected internal stakeholders and external key business partners will begin in 2024.

SPOTLIGHT

CIRCULAR ECONOMY AND FUNCTIONALITY AT ITS BEST

New serving trays made of UPM Formi composite are being brought into use at ABC service stations in Finland. The material is made from renewable raw materials and forest industry side streams.

When the trays reach the end of their lifecycle, they will be washed and crushed into recycled pellets that will then be reused

to manufacture new trays. The wood-based biocomposite also significantly reduces the product's carbon footprint compared with virgin plastics. The mass balance approach is used to determine the use of bio-based feedstock in the plastic used for the composite.

The new trays also have a groove where, for example, users can conveniently place their mobile phone while they take a break.

OUR SOCIETAL AND ENVIRONMENTAL IMPACTS

Our activities and products have impacts on the environment and society. Understanding these impacts is a prerequisite to developing our operations. Direct and indirect inputs and outputs provide a comprehensive picture of the value chain and form the basis for the impact assessment. Environmental, social and economic aspects are considered and impacts are valued in monetary terms for selected parameters.

➤ UPM's detailed material balance is available at www.upm.com/responsibility

INDIRECT UPSTREAM		DIRECT UPSTREAM		DIRECT DOWNSTREAM		DIRECT DOWNSTREAM		INDIRECT DOWNSTREAM		IMPACTS
		Raw materials		Products		Emissions to air				Increasing knowledge and quality of life through our products
Number of B2B suppliers	20,000	Wood	26m m³	Paper	4.7m t	Nitrogen oxides	7,800 t	Number of customers	11,000 in 120 countries	Vitality and prosperity for area of influence
Private forest owners supplying wood to UPM	15,000	Market pulp	1.3m t	Chemical pulp	4.2m t	Sulphur dioxide	770 t	People using UPM products	approx. 180m	Increased social capital and skills of employees
Seedlings planted	56 million	Recovered paper	0.8m t	Converting materials	0.4m t	Particulates	860 t	Biofore Share and Care donations and sponsorships	EUR 1.4m distributed to about 200 groups	Wellbeing and safety of employees and contractors
Supplier spend covered by UPM Supplier Code	89%	Minerals	1.3m t	Plywood and veneer	0.4m m³	VOC	320 t	Virgin materials replaced	1.4m t	Biodiversity enhanced in managed forests and through conservation ²⁾
Certified wood	87%	Purchased paper for converting	0.3m t	Sawn timber	1.5m m³	Fossil CO ₂ emissions (Scope 1)	2.1m t	Value of products eligible for ecolabelling	EUR 8.7 billion	Ecosystem services secured through sustainable forest management
Percentage of wood origin known	100%	Plastic, adhesives, resins, films	0.1m t	Electricity and heat	14,800 GWh	Biogenic CO ₂ emissions	10.3 m t	UPM forests available for recreational use	599,000 ha	Climate change mitigation through UPM 's carbon actions ³⁾
Fossil CO ₂ emissions (Scope 2)	1.6m t	Costs, raw materials	EUR 4.0 billion	Sales	EUR 10,460m	Emissions to water		Fossil CO ₂ emissions (Scope 3 downstream)	3.3 m t	Value added EUR 2.5 billion
Fossil CO ₂ emissions (Scope 3 upstream)	4.3m t	Water uptake		Comparable EBIT	EUR 1,013m	Process wastewater	200m m³	Carbon content in UPM products	14m t	Societal value of carbon sink of UPM own and leased forests EUR 480m⁴⁾
Water intensive production sites located in water abundant areas	100%	Surface water	369m m³	Granted patents and patents validations	355	Cooling water	160m m³	Carbon sink in UPM own and leased forests	4.8m t CO₂ eq¹⁾	Societal cost of GHG emissions (Scope 1-3) EUR -1,130m⁵⁾
New hires	2,200	Ground water	13m m³	People and society		Biological oxygen demand (7days)	5,300 t	Impact of paid taxes on social capital	EUR 344m⁶⁾	Societal cost of other air emissions EUR -157m⁶⁾
Own and leased forests and plantations	1,073,000 ha	Communal water	4m m³	Employees	16,600	Chemical oxygen demand	52,000 t	Recreational value of UPM forests	EUR 83m⁷⁾	Value of ash used as raw material EUR 12m⁷⁾
		Energy		Shareholders	140,739	Adsorbable organic halogens	290 t			Impact of paid taxes on social capital EUR 344m⁸⁾
		Renewable fuels	29,700 GWh	Training hours per employee	10	Process waste and by-products				
		Fossil fuels	9,200 GWh	Total recordable injury frequency incl. contractors	5.2	Material recycling	398,000 dry t			
		Purchased electricity and heat	15,800 GWh	Dividend distribution	EUR 800m	Energy recovery	215,000 dry t			
				Employee wages and benefits	EUR 1,287m	Composting	9,000 dry t			
				Corporate income taxes paid and property taxes	EUR 221m	Landfilling	82,000 dry t			
						Temporary storage	9,500 dry t			
						Incineration without energy recovery	2,000 dry t			
						Hazardous waste for special treatment	9,200 t			

¹⁾ Based on a study by Luke Finland: 5-year average of carbon sink and sources in UPM own and leased forests in Finland and Uruguay. ²⁾ Read more on pages 82–83. ³⁾ Read more on pages 86–87. ⁴⁾ Calculated using societal cost of carbon EUR 100/tCO₂ (average damage cost per tonne of CO₂). Source: EEA. Using European emissions allowance price would result in EUR -910m. ⁵⁾ Calculated using societal cost of each air pollutant. Source: EEA. ⁶⁾ Based on pilot study by Gaia. Read more on www.upm.com/responsibility. ⁷⁾ Calculated using corporate income and property taxes, and health utility of taxes. Source: Vionnet et al. (2021) The Health Utility of Income and Taxes. Part B.

¹⁾ Calculated using societal cost of carbon EUR 100/tCO₂ (average damage cost per tonne of CO₂). Source: EEA. Using European emissions allowance price would result in EUR -910m. ²⁾ Read more on pages 82–83. ³⁾ Read more on pages 86–87. ⁴⁾ Calculated using societal cost of carbon EUR 100/tCO₂ (average damage cost per tonne of CO₂). Source: EEA. Using European emissions allowance price would result in EUR -910m. ⁵⁾ Calculated using societal cost of each air pollutant. Source: EEA. ⁶⁾ Based on pilot study by Gaia. Read more on www.upm.com/responsibility. ⁷⁾ Calculated using corporate income and property taxes, and health utility of taxes. Source: Vionnet et al. (2021) The Health Utility of Income and Taxes. Part B.

GOVERNANCE

Growth strategy continued 104

Remuneration 111

Board of Directors 114

Group Executive Team 116

Independent practitioner’s limited assurance report on UPM’s Corporate Responsibility reporting 118



WHAT TRANSFORMING MEANS

One of our three values is Renew with courage. We show passion for renewal, share our ideas boldly and experiment to learn and grow.

www.upm.com



GROWTH STRATEGY CONTINUED

Our governance structure supports the management of strategic growth and aims to ensure transparent and responsible business operations while safeguarding compliance and risk management.

UPM complies with all recommendations of the Finnish Corporate Governance Code (CG Code), which is issued by the Finnish Securities Market Association. In accordance with the CG Code, we have published our Corporate Governance Statement (CG Statement) for the financial year 2023. It is available on the corporate website at www.upm.com/governance. We refer to the CG Statement for information on:

- Our governance structure and management system
- The duties and responsibilities of the

- Board of Directors and its Committees
- The duties and responsibilities of our management bodies
- Our management and control procedures related to internal control, risk management, internal audit, insider administration and related party transactions

General Meeting of shareholders

Our Annual General Meeting (AGM) 2023 was held in Helsinki on 12 April 2023. A total of 3,476 (2,737) shareholders attended the meeting either in person or through a legal

or proxy representative, representing 60% (58%) of the Company's shares and voting rights at the time of the AGM.

The AGM supported all other proposals by the Board of Directors and its Nomination and Governance Committee except the proposal to amend the Articles of Association, which would allow the Company to arrange general meetings virtually.

The proposal was based on the legislative changes to the Finnish Limited Liability Companies Act. According to the said legislation, virtual general meetings can be held

if the Company's Articles of Association are amended to include this possibility and all participating shareholders are able to exercise their full shareholder rights, including the right to vote and to ask questions in real time during the general meeting, irrespective of the chosen general meeting format. The proposed amendment to the Articles of Association would have been passed with the support of two-thirds of all shares and votes participating in the AGM 2023. Based on the voting instructions received in advance and the number of shares represented at the AGM 2023, the conclusion was that the proposal to amend the Articles of Association did not have sufficient support. Consequently, the Articles of Association were not amended as proposed at the AGM 2023 and the Company may not currently arrange virtual general meetings.

The prevailing market practice in Finland is for the full vote count not to be executed at the general meeting unless it is specifically required by a shareholder attending the meeting. For this reason, a full vote count was not executed on any agenda topic at the AGM 2023.

Shareholders were also able to follow the AGM 2023 through a webcast that allowed them to watch the meeting but not exercise shareholder rights such as asking questions, making counterproposals or voting.

The AGM adopted the Company's Financial Statements and decided to distribute an aggregate dividend of EUR 1.50 per share (EUR 1.30) to be paid in two instalments. Both dividend instalments were EUR 0.75 per share. The first dividend instalment was paid on 21 April 2023 to the shareholders registered in the Company's register of shareholders on 14 April 2023. The second dividend instalment was paid on 2 November 2023 to the shareholders registered in the Company's register of shareholders on 26 October 2023. Both dividend instalments totalled EUR 400 million and together they totalled EUR 800 million.

The AGM released the members of the Board of Directors and the President and CEO from liability for the financial year 2022. UPM's Remuneration Report 2022 for governing bodies was presented to and adopted by the AGM. Information on other decisions made at the AGM can be found later in this section and on the corporate website at www.upm.com/agm2023.

The AGM 2024 will be held at the Messukeskus Expo and Convention Centre in Helsinki on 4 April. Detailed instructions for shareholders wishing to attend the meeting are available on the corporate website at www.upm.com/agm2024. For the year 2023, the Board of Directors proposed a dividend of EUR 1.50 per share to be paid in two instalments.

Board of Directors

- Sets the Company's strategic objectives
- Reviews and approves financial and other plans relevant to the achievement of these objectives
- Reviews the management team's performance in terms of meeting these objectives

The Board's other primary responsibilities relate to the integrity of the Company's financial reporting, the effectiveness of internal control and risk management systems, and the appointment, remuneration and succession planning of the Company's senior management.

Board composition

The composition of the Board changed in the AGM 2023 when Björn Wahlroos, UPM's Chair of the Board since 2008, announced that he would not be standing for re-election. The Nomination and Governance Committee conducted its annual review of the structure, size, composition, diversity and succession needs of the Board as a whole. This includes whether the Board reflects an appropriate balance of sound judgement and a diverse range of business expertise, skills, experience, independence, availability of service to the Company and other desired qualities. After a careful selection process, the Nomination and Governance Committee proposed that nine members be elected to UPM's Board of Directors for a one-year term.

As proposed by the Nomination and Governance Committee, Henrik Ehrnrooth, Emma FitzGerald, Jari Gustafsson, Piia-Noora Kauppi, Topi Manner, Marjan Oudeman, Martin à Porta and Kim Wahl were re-elected, whilst Pia Aaltonen-Forsell was elected as a new director. All directors are non-executive and their term of office will end upon the closure of the AGM 2024. The proposal concerning the Board compo-

sition was presented to the AGM as single slate. This is standard market practice in Finland, unlike in many other countries. The Nomination and Governance Committee believes that this practice helps to ensure that the Board works effectively as a whole, whilst comprising sufficiently diverse members with varied experience and versatile areas of expertise that mutually compliment each other.

The composition of the Board is presented in the table on the following page. The new director, Pia Aaltonen-Forsell (born 1974), is a Finnish citizen. She holds a Master's degree in Social Sciences (Economics) from the University of Helsinki and a Master's degree in Business and Administration (MBA) from the University of Reading, Henley Business School. Aaltonen-Forsell has been the Chief Financial Officer of Outokumpu Oyj and a member of Outokumpu Leadership team since 2019. Her previous work experience and other biographical details can be found on page 114 and she is presented in the spotlight text on page 110.

Following the announcements of the Company's long-standing Board Chair, Björn Wahlroos, that he would not be standing for re-election at the AGM 2023, and of the Company's long-standing President and CEO, Jussi Pesonen, that he will exercise his right to retire from UPM during 2024, the Board carefully assessed the need to ensure continuity. Among other things, the Board considered the status of the ongoing strategic projects at the time of the AGM 2023, growth opportunities and the positive development of the Company. The Board deemed it essential that the new Board Chair be a long-standing member of UPM's Board of Directors, with extensive and versatile experience from the Company's businesses. It considered that Deputy Chair of the Board Henrik Ehrnrooth has such abilities and professional experience and that, together with his knowledge of UPM and its businesses, this provides a solid basis for him to lead the Company's Board and act as the Chair of the Board. Mr Ehrnrooth was appointed Chair of the Board in the Board's constitutive meeting following the AGM 2023.

Board diversity

The overall aim of diversity is for the Board as a whole to have a broad range of skills,

experience and perspectives, as well as knowledge of UPM and other relevant industries so that the Board can effectively carry out its responsibilities, in particular those pertaining to strategy and risk management. With regard to other factors relevant to Board diversity, it is the Board's objective to include an appropriate number of directors of different nationalities, ages, genders and lengths of service, as presented in the pie charts on the right. Information on the professional backgrounds of the Board of Directors and their other significant commitments is available on pages 114–115 of this report.

The Board's diversity principles are included in the Board and Committee Charters and, more specifically, in the Board's Diversity Policy, which is available at www.upm.com/governance. More information on diversity in UPM's Board, related objectives and the results obtained is available in our CG Statement 2023.

Director independence

With the assistance of the Board's Nomination and Governance Committee, the Board of Directors evaluates the independence of its members both annually and on a continuous basis. Director independence is assessed based on the independence criteria of the Finnish CG Code. The majority of the members on the Board of Directors must be independent of the Company and at least two of these independent members must be independent of any significant shareholders.

The independence evaluation of candidates for Director is one of the key factors in the preparation of the Nomination and Governance Committee's annual proposal for the composition of the Board. The Committee assesses the independence of members of the Board of Directors on a continuous basis. It also reviews a report on any changes in professional engagements and other commitments at every meeting to ensure that members are compliant with the independence criteria.

The Committee also assesses how such changes may affect the Board members' availability for Board-related work and reports to the Board on the outcome of such assessments. In particular, the Committee assesses Board members' positions in other publicly listed companies to ensure that these members adhere to best practice with regard to overboarding. According to the Nomination and Governance Committee's assessment, all directors are independent of both the Company and the significant shareholders. High attendance rates at the Board and Committee meetings prove the Board members' commitment and availability for Board-related work. The attendance rates at meetings by each member are shown in the table on the following page.

According to the evaluation carried out by the Board with the assistance of the Nomination and Governance Committee, all Board members are independent of the Company's significant shareholders, as the Company has no controlling shareholder and none of the Company's shareholders

60%

of shares and votes represented in the AGM 2023

3,476

shareholders represented in the AGM 2023

RELEVANT PROFESSIONAL EXPERIENCE

- ✓ Financial expertise
- ✓ Relevant industry knowledge
- ✓ International experience
- ✓ Risk management experience
- ✓ Governance and leadership experience
- ✓ Experience in the planning and implementation of company strategies



have announced a holding of 10% or more of the Company's shares or votes attached thereto.

All directors are non-executive and the Board has also concluded that all directors, including Piia-Noora Kauppi and Kim Wahl,

who have been non-executive directors of the Company for ten or more consecutive years, are independent of the Company. Based on the Board's overall evaluation of the independence of these directors, their long-standing service does not compromise

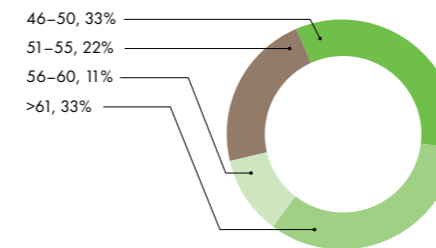
their independence and no other factors or circumstances have been identified that could affect their independence.

Board-related work in 2023

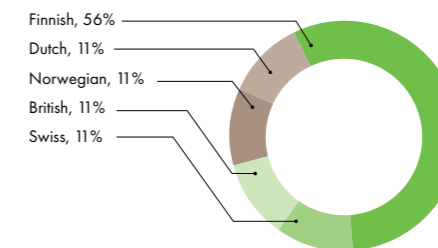
The Board convened according to its original meeting schedule and held nine meetings in 2023. The Board made visits to Paso de los Toros, Uruguay, and Leuna, Germany, sites of the Company's two strategic projects.

There is no minimum meeting attendance requirement for Board members. Instead, Board members are expected to attend all meetings unless they have a valid reason for not attending. The average attendance of Board members was 100% (100%) at Board meetings and 100% (89.0%) at Committee meetings. The personal attendance rate of each Board member is presented in the table on page 109. In connection with its meetings,

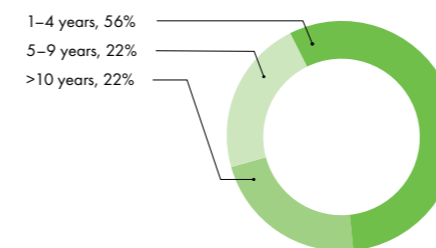
Board diversity – age



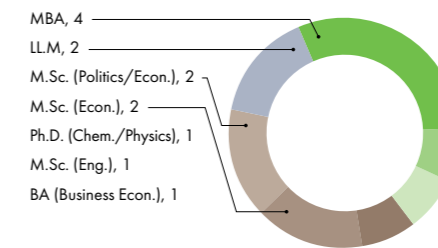
Board diversity – nationality



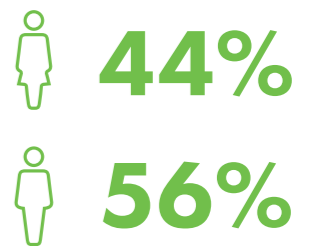
Board diversity – tenure



Board diversity – education



Board diversity – gender



BOARD COMPOSITION, 31 DECEMBER 2023

DIRECTOR ¹⁾	DIRECTOR SINCE	NO. OF TERMS	AGE (AT THE END OF 2023)	INDEPENDENCE OF THE COMPANY	NON-EXECUTIVE / EXECUTIVE DIRECTOR
Henrik Ehrnrooth, Chair	2015	9	54	Independent	Non-executive director
Kim Wahl, Deputy Chair	2012	12	63	Independent	Non-executive director
Pia Aaltonen-Forsell	2023	1	49	Independent	Non-executive director
Emma FitzGerald ²⁾	2020	4	56	Independent	Non-executive director
Jari Gustafsson	2021	3	65	Independent	Non-executive director
Piia-Noora Kauppi	2013	11	48	Independent	Non-executive director
Topi Manner	2022	2	49	Independent	Non-executive director
Marjan Oudeman	2018	6	65	Independent	Non-executive director
Martin à Porta	2020	4	53	Independent	Non-executive director

¹⁾ Björn Wahlroos' term ended at the AGM 2023 due to his announcement that he would not be available for re-election

²⁾ Not available for re-election at the AGM 2024

ATTENDANCE AT BOARD AND COMMITTEE MEETINGS IN 2023

DIRECTOR	ATTENDANCE / NO. OF BOARD MEETINGS	ATTENDANCE %	ATTENDANCE / NO. OF COMMITTEE MEETINGS	ATTENDANCE %	AVERAGE ATTENDANCE %
Henrik Ehrnrooth, Board and NGC Chair as of 12 April (Deputy Chair and NGC member until 12 April)	9/9	100	5/5	100	100
Kim Wahl, Deputy Chair as of 12 April and AC Chair	9/9	100	5/5	100	100
Pia Aaltonen-Forsell, Board and AC member as of 12 April	8/8	100	4/4	100	100
Emma FitzGerald, RC member	9/9	100	5/5	100	100
Jari Gustafsson, NGC member as of 12 April (AC member until 12 April)	9/9	100	5/5	100	100
Piia-Noora Kauppi, NGC member	9/9	100	5/5	100	100
Topi Manner, RC member	9/9	100	5/5	100	100
Marjan Oudeman, AC member	9/9	100	5/5	100	100
Martin à Porta, RC Chair	9/9	100	5/5	100	100
Björn Wahlroos, Board and NGC Chair until 12 April	1/1	100	1/1	100	100

NGC – Nomination and Governance Committee, RC – Remuneration Committee, AC – Audit Committee

the Board also held non-executive sessions and non-executive sessions with the external auditor.

Strategic focus points in 2023

In line with its main duties and responsibilities, the Board reviewed and approved strategic plans during its strategy session in May. The main focus points of the UPM Biofore strategy continue to be growth, performance, innovation, responsibility and portfolio. Read more about our strategy on pages 20–21. An essential part of the Board's annual strategy-related work is to oversee the assessment and management of risks related to the Company's strategy and operations. These risks and opportunities, as well as their impact on operations and strategy, are described on pages 34–35 and 133.

In 2023, the Board continued to focus on major strategic investments, most notably the biochemicals biorefinery in Germany and completion of the pulp mill project in Uruguay. The Board has been closely monitoring the status and feasibility of the project in Uruguay since 2016 and has conducted several status reviews, including risk assessments, in its meetings since then. The investment will increase UPM's pulp production capacity by more than 50% and is consequently expected to contribute future earnings. Read more about this strategic investment on pages 24–25.

The Board has regularly reviewed the status and feasibility of the new biorefinery project in Germany. The biorefinery will produce a range of 100% wood-based biochemicals that will enable switching from fossil raw materials to sustainable alternatives in various consumer-driven end uses. Read more about this strategic investment on pages 54–55 and on the corporate website at www.upmbiochemicals.com/biorefinery.

The Board has also reviewed commercial and basic engineering studies of the possible biofuels refinery in Rotterdam.

Board performance evaluation

The Board of Directors conducts an annual evaluation of its performance and working methods, including an evaluation of the performance and working methods of its Committees.

In 2023, the evaluation was conducted by an external facilitator. The Board evalu-

ation included quantitative and qualitative analyses of the Board and Committee work through various methods such as interviews and surveys. The performance of the Board and its Committees was evaluated in relation to their respective duties and responsibilities, their oversight, effectiveness and decision-making process, their support for executing the Company's strategy, their relationship with the Company's operative management, the Board and Committee compositions and structure, the Board culture, the individual performance of Board members and the performance of the Chair of the Board.

The preliminary results of the 2023 performance evaluation were highly favourable and indicated that the Board, the Chair of the Board and the Board Committees are performing effectively, and that Board members are committed to their Board work. Identified areas for improvement are considered when planning Board-related work, and the Nomination and Governance Committee takes the results into consideration when preparing its proposals for the composition of the Board for the Annual General Meeting. In 2024, the Board will continue to discuss and analyse the results and potential actions thereof.

Board Committees

The Board has established the following three Committees to further improve the preparation of matters to be decided by the Board:

- Audit Committee,
- Remuneration Committee
- Nomination and Governance Committee

The Nomination and Governance Committee assisted the Board in reviewing the composition, qualification criteria and duties of the Board Committees, and made a proposal to the Board for the appointment of Committee members and Chairs. The members were appointed to the Board Committees in the Board's constitutive meeting on 12 April 2023. The composition of the Committees is presented in the table above. Neither the President and CEO nor any other Company executives are allowed to be members of any Board Committees.

The written Committee Charters approved by the Board of Directors define the purpose, composition, operations

COMMITTEE MEMBERS 2023

AUDIT COMMITTEE

Kim Wahl, Chair

Pia Aaltonen Forsell (as of 12 April)

Marjan Oudeman

Jari Gustafsson (until 12 April)

REMUNERATION COMMITTEE

Martin à Porta, Chair

Emma FitzGerald

Toopi Manner

NOMINATION AND GOVERNANCE COMMITTEE

Henrik Ehrnrooth, Chair (Chair as of 12 April)

Jari Gustafsson (as of 12 April)

Piia-Noora Kauppi

Björn Wahlroos (Chair until 12 April)

and duties of each Committee, as well as the prerequisites of Committee membership. Each Committee is responsible for performing the duties assigned to it in its Charter. Summaries of the Committee Charters are presented in the CG Statement and are also available at www.upm.com/governance. The Committees hold their meetings prior to Board meetings in order to prepare matters to be decided by the Board. The chairs of each Committee report on matters discussed and actions taken by the Committees during the Board meetings. In addition, minutes from the Committee meetings are available to the Board members for information purposes.

Audit Committee

The Audit Committee is responsible for overseeing the Company's financial reporting processes and financial reporting, internal control, and internal audit and risk management, as well as monitoring the Company's audit and compliance procedures. In 2023, the Audit Committee held five meetings.

In addition to undertaking the assigned matters and regular reports listed above, the Audit Committee also reviewed

reports on and discussed cyber security, the preparation of upcoming sustainability reports, ESG, environmental impact and other non-financial matters (together with the review of non-financial reporting). The Board would respectively be informed as part of the Committee Chair's regular reporting to the Board if the Committee received from stakeholders having a material impact on the economy, environment or people. Read more on our sustainable development on pages 58–101.

The lead audit partner attended all Committee meetings and reported to the Committee on interim procedures and findings, as well as the quarterly audit and non-audit fees and services. The Committee's standard procedures also include quarterly sessions with the internal auditor, the lead audit partner, management and some Committee members.

When preparing the proposal for the auditor for the financial year 2023, the Committee evaluated the qualifications and independence of the auditor, as well as the audit-related and non-audit-related services provided by the auditor. The evaluation included an assessment of the effectiveness of the audit process, the quality of the audit, the performance of the lead auditor and audit team, and the cooperation with the auditor's international audit network. As a result of the evaluation, the Committee recommended that PricewaterhouseCoopers Oy (PwC) be re-elected as the Company's auditor for the financial year 2023. Following the stipulations of the Audit Regulation, the last financial year that PwC can act as the Company's auditor is 2023.

The Audit Committee has prepared the Board's proposal for the election and remuneration of the auditor for the financial year 2025, which will be presented at the AGM 2024. Following an audit firm selection procedure conducted in 2022, the Board proposed at the AGM 2023 that Ernst & Young Oy (EY) be elected UPM's auditor for the financial year 2024 based on the Audit Committee's recommendation. Electing an auditor for the financial year 2024 at the AGM 2023 gave the elected auditor time to prepare for the new audit engagement.

With regard to the proposal for the financial year 2024, the Audit Committee

prepared its recommendation in accordance with the EU Audit Regulation and established a statutory audit firm selection procedure, reviewing potential audit firm candidates which were evaluated against a variety of selection criteria, such as proposed audit plan and methodology, experience and composition of the audit team, and audit quality and price. The selection process included multiple rounds of information submissions, testing of technological capabilities, interviews and presentations by the candidates, and external reference checks. After careful consideration based on the selection criteria, EY became the Committee's preference and recommended audit firm for the financial year 2024 with Deloitte Oy as the secondary option. The Board agreed with these proposals, made corresponding proposals to the AGM 2023 and the AGM 2023 elected the auditors for the financial years 2023 (PwC) and 2024 (EY).

Authorised Public Accountant Mikko Nieminen continued as the lead audit partner for the financial year 2023. EY has stated that Authorised Public Accountant Heikki Ilkka will act as the lead audit partner for the financial year 2024.

Remuneration Committee

The Remuneration Committee is responsible for preparing the Company's remuneration principles and practices, as well as planning the remuneration of the President and CEO and remuneration and and succession of other senior executives.

In 2023, the Committee held five meetings. In addition to undertaking the assigned matters and regular reports listed above, the Remuneration Committee also discussed the performance measures of the incentive plans and made recommendations to the Board concerning the terms of remuneration of the President and CEO and other senior executives, concerning a new share based long-term incentive arrangement and Restricted Share Plan 2024–2027 and concerning the terms of Service agreement of the Executive Vice President of UPM Fibres, who was appointed during the year 2023. The Committee reviewed the Remuneration Policy adopted by the AGM 2020 and reviewed the slightly updated Remuneration Policy to be presented to the AGM 2024.



SPOTLIGHT

A PEOPLE-FOCUSED, RESULTS-DRIVEN LEADER

Aki Temmes was appointed to lead UPM Fibres as of December 2023. Prior to his new role, Aki was Senior Vice President of Business Control and Finance Operations. He has held multiple roles in business finance positions in Finland and France and headed up UPM's sawmill business.

He knows UPM, and especially UPM Fibres, like the back of his hand. The business has evolved significantly since the Paso de los Toros pulp mill started operations. About 60% of pulp capacity is now in Uruguay. With the tightening of the wood market, the business environment in Finland has changed significantly too.

"The business is in a very exciting phase. Transformative growth in Uruguay is now complete. The ramping-up of production, sales and the supply chain is well under way. In Finland, the focus is on ensuring competitiveness in a changed operating environment, covering the entire value chain from wood procurement to sawmilling and pulp production."

As a leader, he feels that people make things happen and that teams get results. "I trust people, share responsibility, and try to offer support. When the strategy and goals are clear, inspiring and demanding, focused teams and skilful people get results."

Nomination and Governance Committee

The Nomination and Governance Committee is responsible for the composition, diversity and remuneration of the Board of Directors, and corporate governance. The Committee also reviews the succession plans for the President and CEO at least annually and reports to the Board on succession planning. In 2023, the Committee held five meetings and focused on succession planning and the candidacy process for the President and CEO, preparing a proposal for the Board to appoint the successor to the Company's long-standing President and CEO, Jussi Pesonen, who announced in October 2022 that he will retire from UPM during 2024. The schedule gave the Committee and the Board sufficient time to implement the succession planning process.

In addition to undertaking the assigned matters and regular reports and in addition to succession planning for the President and CEO, in 2023 the Nomination and Governance Committee also focused on searching for a director and succession planning for the Board, conducted a performance evaluation of the Board facilitated by the external evaluator, reviewed and proposed certain rotations to the composition of the committees, and reviewed the Remuneration Policy.

The Nomination and Governance Committee conducted its annual review of the structure, size, composition, diversity and

succession needs of the Board as a whole. This included whether the Board reflects an appropriate balance of sound judgement and a diverse range of business expertise, skills, experience, independence, availability of service to the Company and other desired qualities.

After careful research and selection, the Nomination and Governance Committee has proposed that Melanie Maas-Brunner be elected as a new member of the Board at the AGM 2024. Of the incumbent directors, Emma FitzGerald will not be standing for re-election. The Nomination and Governance Committee's proposal on the composition of the Board in 2024, along with the Board's assessment of the independence of the Director nominees, is available on the corporate website at www.upm.com/agm2024.

Executive management

Jussi Pesonen was the President and Chief Executive Officer of UPM-Kymmene Corporation for twenty years from 2004 to 2023. According to his service agreement, Jussi Pesonen was entitled to retire at the age of 60 in 2020. At the request of the Company's Board of Directors, he continued as the President and CEO until the end of 2023, after which he continues at the Company as an advisor to the Company and its management until he retires from UPM on 30 April 2024. In October 2023, the Board resolved to appoint

Massimo Reynaudo, the Company's Executive Vice President of UPM Communication Papers at that time, as the new President and CEO as of 1 January 2024.

The main terms of Service agreement of the current President and CEO are available on the corporate website at www.upm.com/governance in the Executive management section.

The President and CEO's duty is to manage and oversee the Company's day-to-day business operations in accordance with the instructions and orders given by the Board of Directors. In the operative management of the Company, the President and CEO is assisted by the Group Executive Team, consisting of the executives leading business areas and global functions, the Business Area Boards and the Strategy Team. The President and CEO makes decisions on matters that are relevant to the Company's daily business operations. The President and CEO chairs the Group Executive Team. The composition of these management bodies is presented in the table on the right.

Management responsibilities

Members of the Group Executive Team have primary responsibility for the business areas and global functions that they lead. These areas of responsibility are shown in the illustration on the right.

COMPOSITION OF MANAGEMENT BODIES

GROUP EXECUTIVE TEAM	BUSINESS AREA BOARDS	STRATEGY TEAM
President and CEO (Ch.)	President and CEO (Ch.)	President and CEO (Ch.)
CFO	CFO	CFO
General Counsel	General Counsel	General Counsel
Business area EVPs	Business area EVP	EVP Strategy
EVPs of global functions	EVPs of global functions	EVP Technology

➤ Read more on our management system in the Corporate Governance Statement 2023 and at www.upm.com/governance.
 ➤ Members of the Group Executive Team, including information on the executives' biographical details, professional and educational backgrounds, other significant commitments and shareholdings in the Company, are presented on pages 116–117.

RESPONSIBILITY AREAS OF THE MEMBERS OF THE GROUP EXECUTIVE TEAM

PRESIDENT AND CEO MASSIMO REYNAUDO			
Tapio Korpeinen	CFO ¹⁾	UPM Fibres ⁴⁾	Aki Temmes
Juha Mäkelä	General Counsel	UPM Energy	Tapio Korpeinen
Kari Ståhlberg	Strategy	UPM Raflatac	Antti Jääskeläinen
Winfried Schaur	Technology ²⁾	UPM Specialty Papers	Jaakko Nikkilä
Riitta Savonlahti	Human Resources	UPM Communication Papers	Antti Jääskeläinen ⁵⁾
Pirkko Harrela ⁶⁾	Stakeholder Relations ³⁾	UPM Plywood	Mika Kekki

¹⁾ Incl. Finance & Control, Treasury, IR, IT, Sourcing and Real Estate (incl. Finnish forest assets)
²⁾ Incl. Investment Management, R&D and UPM Biorefining business unit (UPM Biofuels, UPM Biochemicals, UPM Biomedicals and UPM Biocomposites)
³⁾ Incl. Communications & Brand, Responsibility, Public Affairs
⁴⁾ Incl. UPM Pulp and UPM Timber
⁵⁾ Interim
⁶⁾ Saara Tahvanainen has been appointed as successor of Pirkko Harrela who will retire in March 2024

Remuneration

In accordance with the CG Code, UPM has published the Remuneration Report for the financial year 2023. The Remuneration Report and information on the remuneration of the Group Executive Team members is available on the corporate website at www.upm.com/governance.

The Remuneration Report for governing bodies presents the remuneration of directors and the President and CEO, and has been prepared by the Board of Directors' Remuneration Committee and Nomination and Governance Committee. The Remuneration Report 2023 for governing bodies will be presented at the AGM 2024.

The Remuneration Policy sets out the framework for the remuneration of the Company's governing bodies and it must be presented to the general meeting at least every four years. UPM's Remuneration Policy was presented to and adopted by the AGM 2020 and the Remuneration Policy

will thus be presented to the AGM 2024. The prevailing Remuneration Policy is available on the corporate website at www.upm.com/governance.

Remuneration of the members of the Group Executive Team and information on the Company's short- and long-term incentive schemes and plans, as well as the terms and conditions of the aforementioned executives' service agreements, is available on the corporate website at www.upm.com/governance.

Remuneration of the Board of Directors

At the AGM 2023, in accordance with the Nomination and Governance Committee's proposal, it was decided that the annual base fee of the Chair, Deputy Chair and other members of the Board be raised and that the annual committee fees will remain unchanged. The approved annual base fees and committee fees in 2022 and 2023 are presented in tables on the following page.

The approved annual fees and total remuneration of each Board member, as well as the number of shares purchased, are presented in the tables on the next page.

Board members did not receive any other financial benefits for their Board or Committee membership in addition to the annual base and Committee fees. Travel and accommodation expenses incurred for meetings held outside a Director's place of residence were paid against invoice. Shares purchased for Board members in 2023 may not be transferred for two years from the purchase date (26 April 2023) or until the membership of the respective Board member has ended, whichever occurs first.

It is a long-standing custom at UPM to remunerate Board members in both shares and cash. Board members are encouraged to own Company shares on a long-term basis and all of them have holdings, indicating close alignment of the interests of Board members with those of shareholders.

SPOTLIGHT

LEADERSHIP IS ABOUT COLLABORATION

Pia Aaltonen-Forsell, CFO of Outokumpu Oyj, was elected to UPM's Board of Directors at the AGM last spring. With a long career in the forest and manufacturing industries, she is now looking at UPM from a strategic perspective.

"UPM is a company with a strong tradition and foundation. The company has implemented the Biofore strategy relentlessly for a long time now and sustainability is truly at the core of this strategy. I have been particularly impressed by

UPM's innovation mindset and R&D. It's interesting to see what we can do with wood in the hands of innovative people, and how innovations can offer solutions for mitigating climate change without forgetting the strong focus on fostering biodiversity."

She expects UPM's solutions to have a big impact. "The direction is clear with such a strong visionary purpose. But changing the world and the way we do things is never easy."

Pia Aaltonen-Forsell believes strongly in the coaching leadership style. "I encourage my own leaders to mentor their teams and grow new leaders. The most important job of a leader is to see far into the future and to develop the business with a long-term perspective."



Remuneration of executive management

Remuneration at UPM is designed to encourage values-based behaviour and the achievement of ambitious strategic targets, as well as compensate performance accordingly.

The aim of the remuneration process for the Company's management team is to promote the Company's long-term financial success, competitiveness and favourable development of shareholder value. Re-

muneration comprises fixed and variable components. These components are shown in the table on page 113.

The variable components are linked to predetermined and measurable performance criteria, and thresholds have been set for the payable amount. The payable amounts of incentives are linked to the management team member's position, as well as their achievement of performance measures and targets set on an annual basis.

The Company has the right to reclaim any paid or due variable remuneration under certain circumstances, such as in the event of violation of laws or other legal obligations or the violation of the UPM Code of Conduct or other Company policies. Overall circumstances will be considered before exercising this right. The Company also has the right to cancel, recover or restate any paid or due variable remuneration if financial or other calculations are found to be incorrect.

Salaries, benefits and incentives earned by the President and CEO and members of the Group Executive Team are shown in the tables on the right.

BOARD REMUNERATION AND PAYMENT MECHANISM

ANNUAL BASE FEE (EUR)	2023		2022	PAYMENT MECHANISM
	2023	2022	2022	
Chair	218,000	200,000		<ul style="list-style-type: none"> Approx. 40% in company shares, rest in cash to cover taxes. The Company paid costs and transfer tax related to the purchase of the Company shares Shares may not be transferred within two years from the purchase date or until the Director's membership in the Board has ended, whichever occurs first
Deputy Chair	145,000	140,000		
Member	120,000	115,000		

COMMITTEE FEES AND PAYMENT MECHANISM

ANNUAL COMMITTEE FEES IN 2022 AND 2023 (EUR)	CHAIR	MEMBERS	PAYMENT MECHANISM
Audit Committee	35,000	15,000	cash
Remuneration Committee	27,500	10,000	
Nomination and Governance Committee	20,000	10,000	

BOARD REMUNERATION IN 2023

DIRECTOR ¹⁾	ANNUAL BASE FEE (EUR) OF WHICH		ANNUAL COMMITTEE FEE (EUR)	TOTAL REMUNERATION (EUR)	NUMBER OF SHARES PURCHASED AS PART OF ANNUAL BASE FEE ²⁾
	40% FOR SHARES (EUR)	60% IN CASH (EUR)			
Henrik Ehrnrooth	218,000		20,000	238,000	3,027
	87,200	130,800			
Kim Wahl	145,000		35,000	180,000	2,013
	58,000	87,000			
Pia Aaltonen-Forsell	120,000		15,000	135,000	1,666
	48,000	72,000			
Emma FitzGerald	120,000		10,000	130,000	1,666
	48,000	72,000			
Jari Gustafsson	120,000		10,000	130,000	1,666
	48,000	72,000			
Piia-Noora Kauppi	120,000		10,000	130,000	1,666
	48,000	72,000			
Topi Manner	120,000		10,000	130,000	1,666
	48,000	72,000			
Marjan Oudeman	120,000		15,000	135,000	1,666
	48,000	72,000			
Martin à Porta	120,000		27,500	147,500	1,666
	48,000	72,000			
Total	1,203,000		152,500	1,355,500	16,702
	481,200	721,800			

¹⁾ Björn Wahlroos' term ended at the AGM 2023 due to his announcement that he was not available for re-election. No Board fees were payable to him during financial year 2023

²⁾ Transaction date 26 April 2023

In 2023, costs under the Finnish statutory pension scheme for the President and CEO amounted to EUR 469,000 (458,000). Payments under the voluntary pension plan amounted to EUR 911,000 (1,000,000).

In 2023, costs under the Finnish and German statutory pension schemes for GET members (excluding the President and CEO) amounted to EUR 881,000 (941,000). Payments under the voluntary pension plan amounted to EUR 994,000 (987,000). Please also see the Remuneration Report 2023 (subject to adoption at the AGM 2024) and Note 3.2 to the consolidated Financial Statements.

Auditor and audit fees

At the AGM 2023, PricewaterhouseCoopers Oy, a firm of authorised public accountants, was re-elected as the Company's statutory auditor for a one-year term, with Authorised Public Accountant Mikko Nieminen as the lead audit partner. Mr Nieminen has held this position since April 2019.

The Company conducted a tendering process for auditing services in 2022. The previous tendering process was carried out in 2013. Following the stipulations of the Auditor Regulation, the last financial year that PricewaterhouseCoopers Oy could act as the Company's auditor was 2023. The AGM 2023 elected the auditors for the financial years 2023 and 2024 (page 109) to give for the financial year 2024 elected new auditor, Ernst & Young Oy, time to prepare for the new audit engagement.

The AGM 2023 further resolved that the audit fees for the financial years 2023 and 2024 will be paid against invoices, approved by the Board of Directors' Audit Committee. The amounts paid to the auditor for the financial year 2023, as approved by the Audit Committee, are shown in the table on the right.

COMPONENTS OF MANAGEMENT REMUNERATION

COMPONENT	PAYABLE IN	BASIS OF PAYMENT	TIME OF PAYMENT
Base salary	Cash	Service agreement/ Executive contract	Monthly
Fringe benefits	For example, company car and phone	Service agreement/ Executive contract	Monthly
Short-term incentives	Cash	Short-Term Incentive Plan	Annually
Long-term incentives	Shares	Performance Share Plan (PSP)	Annually following a three-year earning period

REMUNERATION OF THE PRESIDENT AND CEO

SALARIES AND BENEFITS (EUR 1,000)	2023	2022
Salary, paid during the financial year	1,161	1,153
Short-term incentives, earned during the financial year	166 ¹⁾	1,473 ²⁾
Share rewards, earned	853 ³⁾	2,902 ⁴⁾
Benefits, paid during the financial year	24	28

¹⁾ Paid in February 2024

²⁾ Paid in February 2023

³⁾ PSP 2021-2023 (shares delivered in February 2024)

⁴⁾ PSP 2020-2022 (shares delivered in February 2023)

REMUNERATION OF THE GROUP EXECUTIVE TEAM (EXCLUDING THE PRESIDENT AND CEO)

SALARIES AND BENEFITS (EUR 1,000)	2023	2022
Salaries, paid during the financial year	3,950	4,140
Short-term incentives, earned during the financial year	1,359 ¹⁾	2,973 ²⁾
Share rewards, earned	2,651 ³⁾	9,242 ⁴⁾
Benefits, paid during the financial year	139	135

¹⁾ Paid in February 2024

²⁾ Paid in February 2023

³⁾ PSP 2021-2023 (shares delivered in February 2024)

⁴⁾ PSP 2020-2022 (shares delivered in February 2023)

AUDITOR'S FEES

EUR MILLION	2023	2022	2021
Audit fee	4.4	4.0	3.4
Audit-related services	0.2	0.2	0.2
Tax services	0.3	0.3	0.4
Other services	0.1	0.1	0.2
Total	5.0	4.6	4.2

BOARD OF DIRECTORS



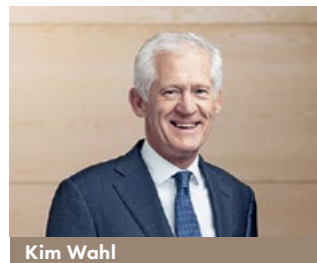
Henrik Ehrnrooth

Chair of the Board

- Member since 2015, Chair since 2023
- Chair of the Nomination and Governance Committee
- Independent of the Company and significant shareholders
- Born 1969, Finnish citizen
- M.Sc. (Econ.)
- UPM shares 17,488

President and CEO of KONE Corporation 2014–2023 and KONE Corporation's Chief Financial Officer and Executive Board member 2009–2014. Previously worked for Goldman Sachs International 1998–2009, most recently as a Managing Director in the Investment Banking Division. Prior to this, various positions at UBS Limited 1994–1998.

Member of the European Round Table for Industry (ERT).



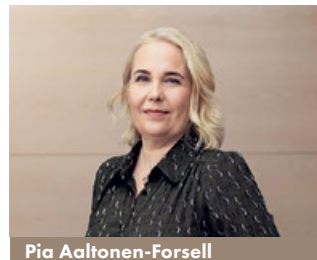
Kim Wahl

Deputy Chair

- Member since 2012, Deputy Chair since 2023
- Chair of the Audit Committee
- Independent of the Company and significant shareholders
- Born 1960, Norwegian citizen
- MBA (Harvard), BA (Business Econ.)
- UPM shares 27,962

Chair of the Board of Strømstangen AS. since 2009. Deputy Chair and Co-Founder of the European private equity firm IK Investment Partners 1989–2009. Associate, Corporate Finance, Goldman Sachs & Co. 1987–1989. Board member of DNB Bank ASA and Civita AS.

Chair of the Board of Voxtra AS and Voxtra Foundation.



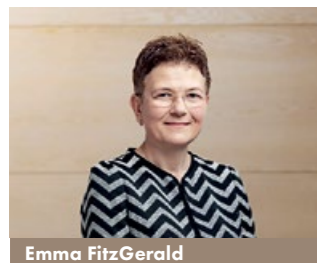
Pia Aaltonen-Forsell

Member since 2023

- Member of the Audit Committee
- Independent of the Company and significant shareholders
- Born 1974, Finnish citizen
- M.Soc.Sc. (Econ.), MBA
- UPM shares 1,666

CFO of Outokumpu Oyj since 2019. Executive Vice President and CFO of Ahlström-Munksjö 2018 and CFO of Munksjö 2015–2017. CFO of Vacon 2013–2015. Various management and finance positions at Stora Enso 2000–2013.

Chair of the Board of Association of Finnish Steel and Metal Producers.



Emma FitzGerald

Member since 2020

- Member of the Remuneration Committee
- Independent of the Company and significant shareholders
- Born 1967, British citizen
- MBA, Ph.D., MA (Surface Chemistry/Solid-State Physics)
- UPM shares 3,097

CEO and Executive Director of Puma Energy Ltd 2019–2021. Executive Director responsible for water and waste service businesses and member of the Board of Severn Trent plc 2015–2018, CEO of Gas Distribution Networks for the UK National Grid 2013–2015, Vice President, Global Retail Network, Shell International Ltd 2010–2013, Vice President, Downstream Strategy and Consultancy, Shell International Ltd 2007–2010, Managing Director, Shell China/Hong Kong 2004–2007 and Shell Gas Ltd 2001–2004, Shell International Ltd, Global R&D, sales and marketing roles 1992–2001.

Board member of Seplat Energy plc and Newmont Corporation. Mentor of Creative Destruction Lab – Climate work stream. Expert Advisor of the World Economic Forum supporting acceleration of the energy transition in developing markets.

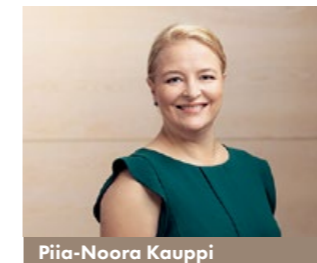


Jari Gustafsson

Member since 2021

- Member of the Nomination and Governance Committee
- Independent of the Company and significant shareholders
- Born 1958, Finnish citizen
- M.Sc. (Political Science)
- UPM shares 4,502

Ambassador of Finland to Greece and Albania since 2020. Permanent Secretary of the Ministry of Economic Affairs and Employment, Finland 2015–2020. Ambassador of Finland to the People's Republic of China and Mongolia 2013–2015. Ambassador of Finland to Japan 2009–2013. Board Director at the European Bank for Reconstruction and Development (EBRD) UK 2007–2009. Deputy Director General, Ministry for Foreign Affairs of Finland 2003–2006. Deputy Director General, Ministry of Trade and Industry, Finland 1998–2003. Counsellor (Industry, Energy, Trade), Finnish Mission to the OECD, France 1995–1998. Head of the Foreign Trade Division, Senior Advisor and Commercial Secretary, Ministry of Trade and Industry, Finland 1987–1995.



Piia-Noora Kauppi

Member since 2013

- Member of the Nomination and Governance Committee
- Independent of the Company and significant shareholders
- Born 1975, Finnish citizen
- LL.M.
- UPM shares 25,701

Partner of Odgers Berndtson Oy since 2023. Managing Director of Finance Finland (FFI) 2009–2022. Member of the European Parliament and member of various parliamentary committees 1999–2008, Head of the Finnish Delegation in the EPP-ED Group 2004–2008. Legal advisor for the Parliamentary Group of the National Coalition Party Kokoomus 1997–1999.

Board member of Gofore plc. Chair of the Board of the SOS-Children's Villages Foundation.



Topi Manner

Member since 2022

- Member of the Remuneration Committee
- Independent of the Company and significant shareholders
- Born 1974, Finnish citizen
- M.Sc. (Econ.)
- UPM shares 3,097

President and CEO of Elisa Corporation since 2024. President and CEO of Finnair Corporation 2019–2024. Various positions at Nordea during 2006–2018: Head of Personal Banking 2016–2018, CEO of Nordea Bank Finland plc 2015–2016, Head of Banking Finland and Baltics, EVP 2012–2015, Head of Segments, EVP 2008–2012, Head of Northern Capital Branch Region in Finland 2006–2008, Head of Management Secretariat in Finland 2005–2006, Head of Planning & Control 2003–2005.

Board member of Service Sector Employers PALTA. Member of the IATA Board of Governors and Chair of the IATA Audit Committee.



Marjan Oudeman

Member since 2018

- Member of the Audit Committee
- Independent of the Company and significant shareholders
- Born 1958, Dutch citizen
- LL.M., MBA
- UPM shares 11,260

President of the Executive Board of Utrecht University 2013–2017. Executive Committee member of AkzoNobel NV, responsible for HR and organisational development 2011–2013. Executive Director of Strip Products Division and Executive Committee member in Tata Steel Europe (previously Corus Group plc) 2007–2010. Managing Director positions in Corus Group plc 2000–2007, most recently Executive Director responsible for Corus Strip Products business and CEO of Corus Nederland BV. Various positions in Hoogovens Group NV. 1982–1999, most recently Managing Director of Hoogovens Packaging Steel business.

Board member of SHV Holdings NV, Solvay SA and Koninklijke Luchtvaart Maatschappij NV (KLM).



Martin à Porta

Member since 2020

- Chair of the Remuneration Committee
- Independent of the Company and significant shareholders
- Born 1970, Swiss citizen
- M.Sc. (Eng.)
- UPM shares 26,510

President and CEO of Pöyry plc 2015–2019, most recently EVP of ÄF Pöyry AB's Management Consulting Division until 2019, various positions in Switzerland, China, Hong Kong and Qatar with Siemens companies 2001–2015, most recently as CEO of Siemens Building Technologies Division Europe, Head of Engineering Section and Project Manager, Electrowatt Engineering Ltd, 1996–2000.

Board member of BKW AG and Stantec Inc.

GROUP EXECUTIVE TEAM



Massimo Reynaudo

**President and CEO
(as of 1 January 2024)**

- M.Sc. (Eng.)
- Born 1969, Italian citizen
- Member of the Group Executive Team since 2021, employed by the UPM Group since 2017
- UPM shares 15,832

Executive Vice President, UPM Communication Papers 2021–2023. Senior Vice President, UPM Raflatac 2017–2021. Several senior business positions at Kimberly-Clark Corporation 1995–2017.



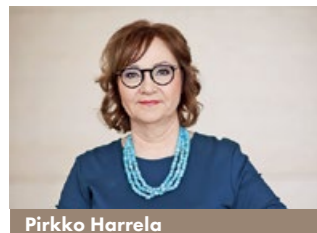
Tapio Korpeinen

Chief Financial Officer, Executive Vice President, UPM Energy

- M.Sc. (Tech.), MBA
- Born 1963, Finnish citizen
- Member of the Group Executive Team since 2008, employed by the UPM Group since 2005
- UPM shares 227,457

CFO since 2010. President, Energy and Pulp Business Group 2008–2010. Vice President, Corporate Development and Senior Vice President, Strategy, UPM 2005–2008. Several management positions at Jaakko Pöyry Consulting in Finland and North America 1991–1998 and 1999–2005, A.T. Kearney in Finland 1998–1999 and McKinsey & Company in Sweden 1988–1990.

Chair of the Board of Pohjolan Voima Oy. Vice Chair of the Board of Kemijoki Oy. Board member of Teollisuuden Voima Oyj. Supervisory Board member of Varma Mutual Pension Insurance Company.



Pirkko Harrela

Executive Vice President, Stakeholder Relations

- M.A.
- Born 1960, Finnish citizen
- Member of the Group Executive Team since 2004, employed by the UPM Group since 1985
- UPM shares 93,666

Executive Vice President, Corporate Communications 2004–2013. Vice President, Corporate Communications of UPM 2003. Several positions in Communications at Finnrap and UPM Paper Division 1985–2002.

Board member of the Finnish Forest Industries Federation (FFIF). Member of S-Group's CSR and Sustainability Advisory Group. Advisory Board member of Deutsch-Finnische Handelskammer. Chair of Kymi Corporation 100 Years Anniversary Foundation.



Antti Jääskeläinen

Executive Vice President, UPM Raflatac and Interim Executive Vice President, UPM Communication Papers

- M.Sc. (Eng.), M.Sc. (Econ.), MBA
- Born 1972, Finnish citizen
- Member of the Group Executive Team since 2016, employed by the UPM Group since 2014
- UPM shares 72,390

Senior Vice President, EMEA, UPM Raflatac 2014–2016. Senior Vice President, Head of Global Operations, Amer Sports 2012–2014. Chief Development Officer, member of the Group Executive Board, Amer Sports 2009–2014. Several management positions at Stora Enso in Finland, Sweden and the UK 2004–2009. Engagement Manager & Associate, McKinsey & Company 2002–2004. Business Operations Manager, Nokia Networks in Finland and Italy 1998–2001. Financial Analyst, Enso Group 1997–1998.

Board member of the Vaisala Corporation.



Mika Kekki

Executive Vice President, UPM Plywood

- B.Sc. (Eng.)
- Born 1969, Finnish citizen
- Member of the Group Executive Team since 2021, employed by the UPM Group since 1994
- UPM shares 10,978

Vice President, Productions & Operations, UPM Plywood 2013–2021. Director Spruce Mills & Operations, UPM Plywood 2011–2013. Mill Manager, UPM Plywood 2007–2011. Several operations managerial positions at UPM Plywood 1994–2007.

Board member of the Federation of the Finnish Woodworking Industries.



Juha Mäkelä

General Counsel

- LL.M.
- Born 1962, Finnish citizen
- Member of the Group Executive Team since 2008, employed by the UPM Group since 2005
- UPM shares 106,259

Group General Counsel since 2005. Positions as legal counsel and senior legal counsel at KONE Corporation 1997–2004. Several positions in law firms 1991–1996.

Supervisory Board member of Kemijoki Oy.



Jaakko Nikkilä

Executive Vice President, UPM Specialty Papers

- M.Sc. (Eng.), eMBA
- Born 1967, Finnish citizen
- Member of the Group Executive Team since 2019, employed by the UPM Group since 1995
- UPM shares 33,979

Senior Vice President, UPM Specialty Papers ENA 2018–2019. Vice President, APAC Sales, UPM Fine and Specialty Papers, China 2012–2017. Vice President, Converters, Paper Business Group, Finland 2011–2012. Area Sales Director, APAC Converters, Paper Business Group, Hong Kong 2005–2011. Production manager, Fine and Specialty Papers 2001–2005. Technical Customer Service Manager, Fine and Specialty Papers 1995–2000. Analyst, Jaakko Pöyry Consulting 1993–1995.



Riitta Savonlahti

Executive Vice President, Human Resources

- M.Sc. (Econ.)
- Born 1964, Finnish citizen
- Member of the Group Executive Team since 2004, employed by the UPM Group since 2004
- UPM shares 22,802

Senior Vice President, Human Resources at Elcoteq Network Corporation 2001–2004. Senior Vice President, Human Resources at Raisio Group 2000–2001. Human Resources Manager at Nokia Mobile Phones, Salo Operations 1995–2000. Human Resources positions at ABB 1990–1994.

Supervisory Board member of the Ilmarinen Mutual Pension Insurance Company. Nomination Committee member of Finland's Unicef association.



Winfried Schaur

Executive Vice President, Technology and UPM Biorefining

- Dipl. Eng. (FH)
- Born 1965, German citizen
- Member of the Group Executive Team since 2016, employed by the UPM Group since 2001
- UPM shares 101,489

Executive Vice President, UPM Communication Papers 2016–2021. Senior Vice President, Newspaper Publishing, UPM Paper ENA 2013–2016. Several leadership positions in the UPM paper business 2001–2013. Project Manager, Investments, Haindl Papier GmbH 1993–2001. Project Engineer, Hoerbiger Automotive 1991–1992.



Kari Ståhlberg

Executive Vice President, Strategy

- M.Sc. (Eng.)
- Born 1971, Finnish citizen
- Member of the Group Executive Team since 2013, employed by the UPM Group since 2007
- UPM shares 78,983

Senior Vice President, Corporate Strategy 2010–2013. Director, M&A, UPM-Kymmene Corporation 2007–2010. Investment Manager at Finnish Industry Investment Ltd. 2006–2007. M&A Advisor at JP Capital International Limited in the UK 2000–2006. Management Consultant at Jaakko Pöyry Consulting Oy. 1998–2000.

Vice Chair of the Board of StevecO Oy.



Aki Temmes

Executive Vice President, UPM Fibres

- M.Sc. (Econ.) and Executive MBA
- Born 1977, Finnish citizen
- Member of the Group Executive Team since December 2023, employed by UPM Group since 2003
- UPM shares 5,437

Senior Vice President, Business Control and Finance Operations 2021–2023. Senior Vice President, UPM Timber business 2019–2020. Vice President, Business Control UPM Fibres Business Area 2013–2019. Various finance positions at UPM in Finland and in France 2003–2013.

INDEPENDENT PRACTITIONER'S LIMITED AND REASONABLE ASSURANCE REPORT ON UPM-KYMMENE CORPORATION'S CORPORATE RESPONSIBILITY INFORMATION



To the Management of UPM-Kymmene Corporation

We have been engaged by the Management of UPM-Kymmene Corporation (business identity code 1041090-0, hereinafter also the "Company") to perform a limited assurance engagement on selected economic, social and environmental corporate responsibility indicators for the reporting period 1 January to 31 December 2023 as identified in the Company's GRI Content Index 2023 and disclosed in the Company's Annual Report 2023 and on the Company's website in section "Responsibility" (hereinafter the "Selected Indicators").

Furthermore, the limited assurance engagement has covered the Company's adherence to the AA1000 AccountAbility Principles (2018) with moderate (limited) level of assurance.

We have been engaged by the Management of the Company to perform a reasonable assurance engagement on the Company's direct and indirect (scope 1 + 2) fossil CO₂ emissions and on the Company's partial value chain CO₂ emissions (Scope 3, Category 4: Maritime logistics) for the reporting period 1 January to 31 December 2023 as identified in the Company's GRI Content Index 2023 and disclosed in the Company's Annual Report 2023 and on the Company's website in section "Responsibility" (hereinafter the "Selected Emissions").

Our limited and reasonable assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to UPM-Kymmene Corporation for our work, for this assurance report, or for the conclusions and the opinion that we have reached.

Management's responsibility

The Management of UPM-Kymmene Corporation is responsible for preparing the Selected Indicators and the Selected Emissions in accordance with the Company's

reporting instructions and GRI Standards of the Global Reporting Initiative (both together hereinafter "Reporting Criteria").

The Management of UPM-Kymmene Corporation is also responsible for the Company's adherence to the AA1000 AccountAbility Principles of inclusivity, materiality, responsiveness and impact as set out in AccountAbility's AA1000 AccountAbility Principles Standard 2018.

The Management of UPM-Kymmene Corporation is also responsible for such internal control as the management determines is necessary to enable the preparation of the Selected Indicators and the Selected Emissions that are free from material misstatement, whether due to fraud or error.

Inherent limitations

When reading our limited and reasonable assurance report, the inherent limitations to the accuracy and completeness of corporate responsibility information should be taken into consideration.

Practitioner's independence and quality management and competence

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

PricewaterhouseCoopers Oy applies International Standard on Quality Management (ISQM) 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our multi-disciplinary team of sustainability and assurance specialists possesses the requisite skills and experience within financial and non-financial assurance, corporate responsibility strategy and management, social and environmental issues, as well as the relevant industry knowledge, to undertake this assurance engagement.

Practitioner's responsibility

Our responsibility is to express a limited assurance conclusion on the Selected Indicators and on the Company's adherence to the AA1000 AccountAbility Principles, and a reasonable assurance opinion on the Selected Emissions based on the procedures we have performed and the evidence we have obtained.

We conducted our limited assurance engagement and our reasonable assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements (ISAE) 3410 "Assurance Engagements on Greenhouse Gas Statements". These standards require that we plan and perform the limited assurance engagement to obtain limited assurance about whether the Selected Indicators are free from material misstatement, and that we plan and perform the reasonable assurance engagement to obtain reasonable assurance about whether the Selected Emissions are free from material misstatement.

In addition, we have conducted our work in accordance with the AA1000 Assurance Standard v3. For conducting a Type 2 assurance engagement as agreed with the Company, the AA1000AS v3 requires planning and performing of the assurance engagement to obtain moderate (limited) assurance on whether any matters come to our attention that cause us to believe that UPM-Kymmene Corporation

does not adhere, in all material respects, to the AA1000 AccountAbility Principles (2018) and that the Selected Indicators and the Selected Emissions are not reliable, in all material respects, based on the Reporting Criteria.

Summary of the work performed for limited assurance conclusion

In a limited assurance engagement, the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. A limited assurance engagement involves performing procedures to obtain evidence about the amounts and other information in the Selected Indicators and Selected Emissions, and about the Company's adherence to the AA1000 AccountAbility Principles. The procedures selected depend on the practitioner's judgment, including an assessment of the risks of material misstatement of the Selected Indicators and the Selected Emissions and an assessment of the risks of the Company's material nonadherence to the AA1000 AccountAbility Principles.

In conducting our limited assurance engagement, our work consisted of, amongst others:

- Interviewing of senior management of the Company and employees responsible for collecting and reporting the Selected Indicators and the Selected Emissions at the Group level and at selected sites.
- Visiting the Company's Head Office as well as two sites in Europe and South-America.
- Interviewing employees from various organisational levels of the Company with regards to materiality, stakeholder expectations, meeting of those expectations, as well as stakeholder engagement.
- Assessing stakeholder inclusivity and responsiveness based on employee interviews, company's documentation and internal communication.

- Testing the accuracy and completeness of information from original documents and systems on a sample basis.
- Testing the consolidation of information and performing recalculations on a sample basis
- Considering the presentation and disclosure of the Selected Indicators and the Selected Emissions.

Limited Assurance Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that UPM-Kymmene Corporation's Selected Indicators for the reporting period 1 January to 31 December 2023 are not properly prepared, in all material respects, in accordance with the Reporting Criteria, or that the Selected Indicators are not reliable, in all material respects, based on the Reporting Criteria.

Furthermore nothing has come to our attention that causes us to believe that UPM-Kymmene Corporation's Selected Emissions are not reliable, in all material respects, based on the Reporting Criteria or that UPM-Kymmene Corporation does not adhere, in all material respects, to the AA1000 AccountAbility Principles.

Reasonable Assurance Opinion

In our opinion, UPM-Kymmene Corporation's Selected Emissions for the reporting period 1 January to 31 December 2023 are prepared, in all material respects, in accordance with the Reporting Criteria.

Observations and recommendations

Based on the procedures we have performed and the evidence we have obtained, we provide the following observations and recommendations in relation to UPM-Kymmene Corporation's adherence to the AA1000 AccountAbility Principles (2018). These observations and recommendations do not affect the conclusions and the opinion presented above.

Regarding Inclusivity: UPM-Kymmene Corporation has processes in place for stakeholder inclusivity both at the group and at the business level. We recommend to keep assessing opportunities for extended stakeholder cooperation.

Regarding Materiality: UPM-Kymmene Corporation has a systematic process in place to evaluate and determine the materiality of corporate responsibility topics. We recommend to continue to periodically assess both material topics and the process to determine materiality.

Regarding Responsiveness: UPM-Kymmene Corporation has processes in place for responding to stakeholder needs. We recommend to continue using stakeholder inquiries and engaging with the stakeholders as sources of feeding information into the periodical materiality assessment process.

Regarding Impact: UPM-Kymmene Corporation has a process in place to monitor and measure the economic, environmental and social impacts of its business activities. Financial impact has been incorporated further into materiality assessment in anticipation for reporting requirements of the Corporate Sustainability Reporting Directive (CSRD) (2022/2464/EU).

Helsinki 16 February 2024

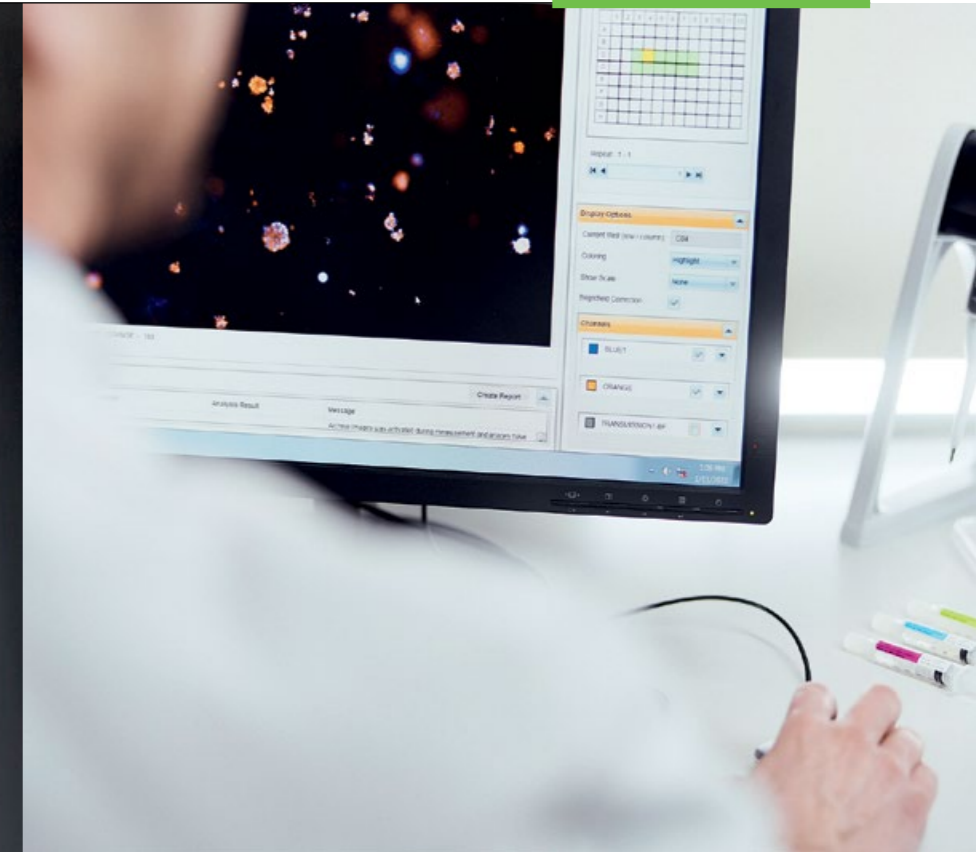
PricewaterhouseCoopers Oy

Tiina Puukkoniemi
Partner, Authorised Public Accountant (KHT)
Sustainability Reporting & Assurance

Mikko Nieminen
Partner, Authorised Public Accountant (KHT)
Lead Financial Audit Partner

ACCOUNTS FOR 2023

- Report of the Board of Directors 122
- Financial statements 163
- Auditor’s report 237
- Other financial information 241
- UPM on a world map 248
- Contact us 250



WHAT TRANSFORMING MEANS
 Global megatrends are driving demand for many of our products, and both our customers and consumers want to make sustainable choices. We innovate and provide responsible solutions.

Report of the Board of Directors

UPM introduction and business model

As a biomaterials growth company in forest industry, UPM provides renewable alternatives for fossil-based materials to the growing global consumer demand. UPM's large product range covers pulp, graphic papers and specialty papers, self-adhesive labels, wood-based renewable diesel and naphtha, electricity as well as plywood and timber products.

UPM invests in sustainable growth and innovates for a future beyond fossils across six business areas: UPM Fibres, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers and UPM Plywood. The business areas are competitive with strong market positions. At the same time, UPM is developing new innovation-driven and wood-based growth businesses in biochemicals and biofuels, for example.

UPM group creates value to its stakeholders by operating separate businesses with a focus on:

- Competitive and sustainable wood sourcing, forestry and plantation operations
- Value adding, efficient and responsible global functions
- Group-wide continuous improvement programmes in commercial strategies, variable costs, working capital, site and maintenance costs, safety and environmental performance
- Technology development and intellectual property rights
- A global business platform
- Disciplined and effective capital allocation
- Compliance, UPM Code of Conduct and strong UPM brand

Market environment in 2023

Global real GDP growth is projected at 2.7% in 2023. Rising interest rates and the war in Ukraine continued to weigh on economic activity. Global inflation fell to 5.6%, driven by the decline in food and energy prices. However, inflation was still above pre-pandemic levels and core inflation remained persistent, driven by the services sector and labour markets remaining relatively tight. Global trade in goods declined in 2023, while trade in services expanded. Persistent regional conflicts and geopolitical tensions have been increasingly fragmenting the global economy and affecting global trade.

The Russia-Ukraine conflict continued to pose a significant geopolitical risk in 2023 and the international community took proactive measures to prevent escalation. Multiple sectors of the Russian economy are now sanctioned by Western nations, with the oil, financial and technology sectors being the most affected. Furthermore, the conflict in the Middle East increased risks to supply chains and global commodity markets, though the impact of the conflict remained limited in 2023.

Following robust post-pandemic expansion in 2022, economic growth in Europe is projected at 0.6%. Private consumption stagnated due to a high cost of living, and nominal wage growth lagged behind inflation. Weak external demand, monetary tightening by the European Central Bank, and inflation, though declining, further limited economic growth. The euro area industry confidence indicator reflected the low levels of manufacturing activity since May. Nevertheless, production expectations improved slightly at the end of the year with signs of recovery in the unprecedented inventory cycle. The EU labour market showed strong performance with low unemployment, despite the slowdown in economic growth.

Clear roles and responsibilities



Each business area is responsible for executing its own strategy and achieving targets. This enables agility in a fast-changing business environment, higher efficiency, differentiated commercial strategies, optimal sourcing, the right incentives, wider product development opportunities and effective capital allocation.

Corporate responsibility is an integral part of all of our operations and a source of competitive advantage and value creation. UPM is committed to continuous improvement in financial, social and environmental performance. UPM promotes responsible practices throughout the value chain and is active in finding sustainable solutions, in co-operation with its customers, suppliers and partners.

While a recession was expected at the beginning of the year in the United States, the US economy progressed at a significant pace over the course of 2023, driven by strong consumer spending, a resilient labour market and growing real wages. Manufacturing investment also reached historic highs. Economic growth in the US is projected at 2.4%. Inflation decelerated throughout the year mainly due to supply chains healing. The US dollar appreciated against the euro. On a negative note, trade tensions between the US and China continued to raise concerns regarding geopolitics.

The Asia-Pacific region remained a key driver of global growth in 2023, in spite of tighter monetary policies and global demand rotating from goods to services. The Chinese economy is projected to grow by 5.4%, reflecting a post-pandemic rebound. The Chinese government continued to make investments to meet GDP growth targets and China's debt ratio increased further. The gradual recovery of consumer spending, the weakness in the property sector and subdued external demand continued to hinder growth to some extent.

Energy and climate change remained politically polarising issues, with notably lacking progress being made globally regarding the climate transition. At the same time, the need to take decisive climate action has never been more critical as the global mean temperature for 2023 was the highest on record. The UN Climate Conference (COP28) set out ambitious targets to keep the aim of limiting the rise in global temperature to 1.5°C within reach and made the historic decision to accelerate climate action with nearly 200 countries pledging to move away from fossil fuels in energy systems. Furthermore, climate finance continued to be at the centre of climate action. However, mitigating climate change and adapting and responding to climate impacts will

still require significant additional finance and collective action to support developing countries in transitioning to clean energy and implementing their national climate plans.

To enact the focus of halting and reversing biodiversity loss and promoting the recovery of nature by 2030, the UN Climate Conference affirmed the need to implement the Kunming-Montreal Global Biodiversity Framework, which was agreed at the UN Biodiversity Conference (COP15) in 2022. To ensure that progress is made, it is crucial that adequate methods of implementation are in place, such as financial resources, as well as planning, monitoring, reporting and review mechanisms.

Both COP processes are influencing regulations globally. Especially in EU also other ESG related regulations have been formulated lately or are expected to come in force in the near future. Various conflicts have highlighted the need to acknowledge human rights everywhere.

In 2023, the business environment for UPM's products was unprecedented due to low economic activity, especially in Europe. Market deliveries of products were further held back by destocking in most of the product value chains. However, the second half of the year saw gradual recovery in demand for many of UPM's products. Margin management was successful. Apart from the wood costs in the Nordic region, most input costs declined compared to 2022.

The global demand for chemical pulp in 2023 was solid. After reaching all-time highs in 2022, the average market prices for both northern bleached softwood kraft (NBSK) and bleached hardwood kraft pulp (BHKP) fell to bottom-of-the-cycle levels in all markets. Market prices started to recover in H2 2023. UPM's new world-class pulp mill in Uruguay, UPM Paso de los Toros, was ramped up since April 2023. The mill, which will have highly competitive cash costs once fully ramped-up and optimised, is set to be profitable in different market scenarios and will grow UPM's pulp business by more than 50%.

The energy crisis in Europe eased in 2023. Electricity prices were still high in Europe and significant volatility in prices has become the new normal. Increased supply and lower industrial consumption led to lower power prices in Finland. Electricity self-sufficiency improved significantly in Finland with the OL3 nuclear power plant unit beginning commercial production in April 2023.

Market demand for self-adhesive label materials declined in Europe and North America due to unprecedented destocking and low consumer demand. Subsequent recovery started to be visible only towards the end of the year. Tight margin management continued, with capacity and resources adjusted to reflect lower market demand.

The global demand growth for label, release and packaging papers was soft and market prices decreased compared to the previous year. Fine paper demand was impacted by the slower than expected recovery of the Chinese economy. Market prices for office papers in the Asia-Pacific region decreased compared to 2022.

Demand for graphic papers in Europe decreased by 24% compared to 2022. Market prices decreased for all paper grades.

Demand for spruce plywood and veneer declined due to low activity in the renovation and construction industry. Demand for birch plywood in panel trading and industrial applications was good in H1 2023 but moderated towards the end of the year. Market prices increased.

In the timber business, market demand was weak due to low activity in the construction industry. Market prices were at low level.

Demand for advanced biofuels was good and markets benefited from climate targets. The revised RED III Directive came into force at the end of 2023 with the European 2030 target for the share of advanced biofuels in energy used in transport being increased. Prices of advanced biofuels declined towards the end of the year.

Impact of Russia's war in Ukraine

In response to Russia's attack on Ukraine, the European Union as well as the United States, the United Kingdom, and other countries imposed extensive sanctions on Russia, the breakaway regions of Donetsk and Luhansk and the oblasts of Zaporizhzhia and Kherson, and Belarus. Since 21 February 2022, these measures have included for example asset freezes and travel restrictions on individuals and entities, economic sanctions targeting sectors of the Russian and Belarusian economies, and diplomatic restrictions. Russia has also implemented several countermeasures affecting especially foreign companies' operations within Russia and with Russian counterparties. While the sanctions primarily target Russia's ability to finance its military operations in Ukraine and cause economic and political costs on the people responsible for them, there are limited signs of a peaceful resolution to the war in Ukraine. Economic and geopolitical uncertainty and inflation have accelerated around the world.

Impact on UPM businesses

The economic sanctions and Russia's countermeasures have rendered it unviable for UPM to continue operations in Russia or trade with Russian counterparties. UPM businesses suspended deliveries to Russia as well as wood sourcing in and from Russia. In Q1 2023 UPM completed a full withdrawal of its businesses from Russia by selling all its Russian operations, including the Chudovo plywood mill.

The full impact of the current and potential new sanctions, countersanctions and market development will only become known as the situation evolves. UPM has implemented mitigation plans to contain and reduce the negative consequences for its employees, customers, vendors, and other stakeholders as well as for the operations affected by sanctions and the war in Ukraine in general. The potential further impacts for UPM are likely to differ by business and by the pace, scope and duration of sanctions, market price reactions, development of supply chains, and the length of the war in Ukraine and whether there is any geographic escalation of the war. UPM is monitoring the situation closely and preparing plans to adjust its operations in different scenarios accordingly.

Key figures

	2023	2022	2021
Sales, EURm	10,460	11,720	9,814
Comparable EBITDA, EURm	1,573	2,536	1,821
% of sales	15.0	21.6	18.6
Operating profit, EURm	608	1,974	1,562
Comparable EBIT, EURm	1,013	2,096	1,471
% of sales	9.7	17.9	15.0
Profit before tax, EURm	464	1,944	1,548
Comparable profit before tax, EURm	934	2,066	1,457
Profit for the period, EURm	394	1,556	1,307
Comparable profit for the period, EURm	755	1,679	1,204
Earnings per share (EPS), EUR	0.73	2.86	2.41
Comparable EPS, EUR	1.40	3.09	2.22
Return on equity (ROE), %	3.2	13.0	12.7
Comparable ROE, %	6.2	14.0	11.7
Return on capital employed (ROE), %	3.5	12.8	12.4
Comparable ROCE, %	6.4	13.6	11.7
Operating cash flow, EURm	2,269	508	1,250
Operating cash flow per share, EUR	4.25	0.95	2.34
Equity per share at the end of period, EUR	20.93	23.44	20.34
Capital employed at the end of period, EURm	14,916	17,913	13,759
Net debt, EURm	2,432	2,374	647
Net debt to EBITDA	1.55	0.94	0.35
Personnel at the end of period	16,573	17,236	16,966

» Refer Other financial information Alternative performance measures for definitions of key figures.

Results

2023 compared with 2022

Sales in 2023 were EUR 10,460 million, 11% lower than the EUR 11,720 million for 2022. Sales decreased in UPM Communication Papers, UPM Raflatac, UPM Specialty Papers, UPM Plywood and UPM Energy business areas. Sales increased in UPM Fibres and Other Operations.

Comparable EBIT decreased by 52% to EUR 1,013 million, 9.7% of sales (2,096 million, 17.9%).

On the group level, sales prices had a large negative earnings impact, most notably from pulp and energy prices. Variable costs were higher as well.

Sales prices decreased for UPM Fibres and UPM Energy, UPM Communication Papers and UPM Specialty Papers business areas and increased for UPM Raflatac and UPM Plywood business areas.

Variable costs increased in UPM Energy, UPM Raflatac and UPM Plywood business areas and in Other Operations. Variable costs decreased in UPM Communication Papers, UPM Specialty Papers and UPM Fibres business areas.

Delivery volumes increased for UPM Fibres, UPM Energy and UPM Biofuels and decreased for UPM Communication Papers, UPM Raflatac, UPM Plywood and UPM Specialty Papers. Market demand for many products was soft, and delivery volumes were further held back by destocking in the various product value chains. UPM Paso de los Toros pulp mill and the OL3 nuclear power plant unit contributed to deliveries in 2023, whereas the strike in Finland in January-April 2022 affected delivery volumes in the comparison period.

Fixed costs increased by EUR 203 million partly due to the growth projects and higher maintenance activity. Employee costs in the comparison period were lower partly due to the strike in Finland.

Depreciation, excluding items affecting comparability, totalled EUR 543 million (457 million) including depreciation of leased assets totalling EUR 87 million (80 million). The change in the fair value of forest assets net of wood harvested in comparable EBIT was EUR -17 million (12 million).

Operating profit totalled EUR 608 million (1,974 million). Items affecting comparability in operating profit totalled EUR -405 million in the period (-122 million). In 2023, items affecting comparability include EUR 120 million restructuring charges and EUR 112 million impairment charges of fixed and leased assets related to the closure of the UPM Platting paper mill in Germany and EUR 13 million restructuring charges and EUR 2 million impairment charges related to restructuring measures at the UPM Raflatac Nancy factory in France, EUR 86 million decrease in the fair value of forest assets in Finland resulting from changes in estimates and increase in discount rate, EUR 30 million restructuring charges relating to the closure of paper machine 6 at the UPM Schongau mill in Germany, EUR 10 million charges related to the sale of the Steyrmühl site in Austria, EUR 23 million of other restructuring charges, EUR 3 million charges related to Sierilä power plant project impairment in Finland, EUR 6 million capital loss resulting from the sale of Russian operations and EUR 5 million capital gains on sale of other non-current assets. In 2022, items affecting comparability include EUR 80 million impairment charges of assets impacted by Russia's war in Ukraine, EUR 69 million settlement loss resulting from

replacement of a defined benefit pension plan in Finland with defined contribution plan, EUR 8 million capital gain on the sale of Chapelle mill site in France, EUR 11 million reversal of restructuring provisions related to the Chapelle paper mill, EUR 26 million gain on the sale of other non-current assets, EUR 18 million restructuring costs and EUR 8 million addition to environmental provisions in Finland.

Net interest and other finance income and costs were EUR -70 million (-55 million). The exchange rate and fair value gains and losses were EUR -74 million (25 million). Items affecting comparability in finance costs totalled EUR -65 million including EUR 71 million exchange rate losses relating to the sale of Russian operations. Income taxes totalled EUR -71 million (-388 million).

Profit for 2023 was EUR 394 million (1,556 million), and comparable profit was EUR 755 million (1,679 million).

Financing and cash flow

In 2023 cash flow from operating activities before capital expenditure and financing totalled EUR 2,269 million (508 million). Working capital decreased by EUR 417 million (increased by 687 million). In 2022, the energy futures markets experienced an unprecedented rise in futures prices, followed by a return to lower levels in 2023. As a result, the cash outflow of UPM's unrealised energy hedges totalled EUR -0.9 billion in 2022, whereas cash inflow totalled EUR 1.0 billion in 2023.

Net debt was EUR 2,432 million at the end of 2023 (2,374 million). The gearing ratio as of 31 December 2023 was 21% (18%). The net debt to EBITDA ratio, based on the last 12 month's EBITDA, was 1.55 at the end of the period (0.94).

On 31 December 2023 UPM's cash funds and unused committed credit facilities totalled EUR 3.6 billion. The total amount of committed credit facilities was EUR 2.9 billion of which EUR 259 million maturing in 2025 and EUR 2.7 billion maturing in 2026 or beyond.

For the 2022 financial year, the dividend of EUR 1.50 per share was paid in two equal instalments. The first instalment of EUR 0.75 per share (totaling EUR 400 million) was paid on 21 April 2023 and the second instalment of EUR 0.75 per share was paid on 2 November 2023 (totaling EUR 400 million).

Capital expenditure

In 2023, capital expenditure totalled EUR 1,122 million, which was 10.7% of sales (1,555 million, 13.3% of sales). Capital expenditure does not include additions to leased assets.

In 2024, UPM's total capital expenditure, excluding investments in shares, is expected to be about EUR 550 million, which includes estimated capital expenditure of approximately EUR 300 million in the biochemicals biorefinery in Germany.

In January 2019, UPM announced that it would invest in the refurbishment of the Kuusankoski hydropower plant in Finland. The average annual production of the Kuusankoski plant is expected to increase from the current 180 GWh to 195 GWh. The investment was completed in Q1 2023.

In July 2019, UPM announced that it would invest in a 2.1 million tonne greenfield eucalyptus pulp mill near Paso de los Toros, central Uruguay. Additionally, UPM will invest in port operations in Montevideo and in local investments outside the mill fence. The mill began its operations on 15 April 2023 after the final authorisation to operate was granted. The total investment was USD 3.47 billion.

In January 2020, UPM announced that it would invest in a 220,000 tonnes next-generation biochemicals biorefinery in Leuna, Germany. The facility is scheduled to start up by the end of 2024, and the total investment estimate is EUR 1,180 million.

In December 2021, UPM announced that it would invest EUR 10 million in the development of UPM Plywood's plywood mill in Joensuu, Finland. The investment includes new production lines, new workspaces and 720 square metres of completely new production space. The investment was completed in Q3 2023.

Personnel

In 2023, UPM had an average of 17,109 employees (17,176). At the beginning of the year the number of employees was 17,236 and at the end of 2023 it was 16,573.

Further information about personnel is available in » Engaging employees section in UPM Annual report 2023.

Uruguay pulp mill investment

On 23 July 2019, UPM announced that it would invest in a 2.1 million tonne greenfield eucalyptus pulp mill near Paso de los Toros, central Uruguay. Additionally, UPM would invest in port operations in Montevideo and in local investments outside the mill fence. The mill began its operations on 15 April 2023 after the final authorisation to operate was granted. The total investment was USD 3.47 billion.

The investment grows UPM's pulp capacity by more than 50%, resulting in a step change in the scale of UPM's pulp business as well as in UPM's future earnings.

With a combination of competitive wood supply, scale, best available techniques and efficient logistics, the mill is expected to reach a highly competitive cash cost level of approximately USD 280 per delivered tonne of pulp. This figure includes the variable and fixed costs of plantation operations, wood sourcing, mill operations and logistics delivered to the main markets. Furthermore, the safety and sustainability performance of the value chain from plantations to customer delivery is expected to be on an industry-leading level.

Competitive wood supply

Eucalyptus availability for the mill is secured through UPM's own and leased plantations, as well as through wood sourcing agreements with private partners. The plantations that UPM owns, leases or manages in Uruguay covers 505,159 hectares. They supply the current UPM Fray Bentos mill and the new UPM Paso de los Toros mill.

State of the art mill design

The pulp mill has been designed as an efficient single-line operation. The machines, materials, level of automation and standards enable a high operating rate and maintainability, as well as a high energy output. This ensures excellent safety, high environmental performance, and low operating costs during the long lifecycle of the mill.

The mill is designed to fully meet strict Uruguayan environmental regulations, as well as international standards and recommendations for modern mills, including the use of the latest and best available technology (BAT). The mill's environmental performance is verified through comprehensive and transparent monitoring.

The mill's initial annual production capacity is 2.1 million tonnes, and the environmental permits enable further capacity potential. When in full operation, the mill generates more than 110 MW surplus of renewable electricity.

Efficient logistics set-up

An efficient logistics chain is secured by the agreed road improvements, extensive railway modernisation and port terminal construction.

The Public-Private-Partnership agreement between the government and the construction company for the construction of the central railway was signed in May 2019. The construction of the central railway was completed in December 2023 and the railway will start operations during H1 after mandatory tests have been carried out. UPM has ensured logistics with truck transportation until rail logistics are fully operational.

UPM's new deep-sea pulp terminal at Montevideo port went operational in October 2022. Direct rail access from the mill to the pulp specialised deep-sea port terminal will create an efficient supply chain to world markets. The Montevideo deep-sea port also enables synergies in ocean logistics with UPM's all Uruguayan operations.

UPM entered into a port terminal concession agreement in 2019 and signed an agreement on rail logistics services in October 2020. Both agreements are considered in accordance with IFRS 16 Leases. The total amount of such lease payments is expected to be USD 200 million.

Significant impact on the Uruguayan economy

Based on independent socio-economic impact studies, the mill is estimated to increase Uruguay's gross national product by about 2% and the annual value of Uruguay's exports by approximately 12%. According to June 2023 data from government agency Uruguay XXI, eucalyptus pulp has become the country's main export.

In the most intensive construction phase, more than 7,000 people have been working on the site. In total, over 20,000 people have been involved in the various construction sites related to the project.

Now that the pulp mill is operational, approximately 10,000 permanent jobs are estimated to be created in the Uruguayan economy of which 4,000 would involve direct employment by UPM and its subcontractors throughout the forestry value chain including logistics. About 600 companies are estimated to be working in the value chain.

The mill is located in one of Uruguay's many (12) free trade zones and pays a fixed annual tax of USD 7 million. The new mill's value chain is expected to contribute USD 170 million in annual taxes and social security payments and to contribute USD 200 million annually in wages and salaries.

Project schedule and capital outflow

On 31 March, UPM announced that it reached technical readiness to begin operations and received approval from the environmental authorities for all the procedures, systems and technologies that are required to fulfil the mill's environmental permit. This acceptance preceded the final operating authorisation that was granted on 14 April. The start-up of the mill commenced immediately. UPM celebrated the inauguration of the pulp mill together with representatives of the State of Uruguay and several other stakeholders who have participated in the successful execution of the growth project. Customer deliveries from UPM's deep sea pulp terminal in the port of Montevideo started in May. The nominal capacity of the mill is expected to be reached within the first year.

The mill has gone through a comprehensive and thorough permitting process. The Uruguayan environmental authority has monitored the construction of the mill on site throughout the project. The operating authorisation process has included several inspections by the authorities, as well as third party audits by industry experts. UPM has an extensive environmental monitoring programme covering water and biota, air, soil, noise, and socio-economic aspects.

In connection with reaching the technical readiness to start operations, UPM confirmed the expected cash cost level of approximately USD 280 per delivered tonne of pulp. This positions the UPM Paso de los Toros mill among the most competitive pulp mills in the world, with attractive returns on investment in various market scenarios.

The total capital expenditure of USD 3.47 billion took place in 2019–2023, with 2021 and 2022 being the most intensive years. UPM holds 91% ownership and a local long-term partner which has also been involved in UPM Fray Bentos, owns 9%.

Biochemicals refinery investment

In January 2020 UPM announced that it would invest in a 220,000 tonnes next-generation biochemicals refinery in Leuna, Germany. The unit was scheduled to start up by the end of 2023 and its investment estimate was EUR 750 million. In July 2023 UPM updated the project schedule, with estimated start-up by the end of 2024 and gave a revised capital expenditure estimate of EUR 1,180 million.

The update to the schedule and budget was required as the project has been impacted by the insolvency of one of the key equipment suppliers, an overall scarcity of contractors and the negative impacts of the overall geopolitical situation on material availability and prices. Building a first-of-its-kind biorefinery under these circumstances and making required adjustments has been demanding and caused rescheduling and delays in the project. Mitigating actions have been taken and critical resources are contracted.

The biorefinery is the first of its kind and the process design as well as some of the technologies used are new to the world. We have full confidence in the technologies used and the viability of the process.

The biorefinery will produce a range of 100% wood-based biochemicals, which will enable a switch from fossil raw materials to sustainable alternatives in various consumer-driven end-uses. The investment opens up totally new markets for UPM, with large growth potential for the future.

The industrial scale biorefinery will convert solid wood into next generation biochemicals: bio-monoethylene glycol (BioMEG) and renewable functional fillers. In addition, the biorefinery will produce bio-monomethylene glycol (BioMPG) and industrial sugars. The ROCE target for the UPM Biochemicals business is 14%.

The combination of a sustainable wood supply, a unique technology concept, integration into existing infrastructure at Leuna and the proximity to customers will ensure the competitiveness of operations. The safety and sustainability of the value chain will be based on UPM's high standards.

InfraLeuna GmbH, in the state of Saxony-Anhalt, offers very competitive conditions for constructing a biorefinery with its logistics arrangements and infrastructure for various services and utilities. In October 2020, UPM entered into service agreements with InfraLeuna GmbH related to wood handling, wastewater treatment and other utilities, which will be recognised as lease assets and liabilities under IFRS 16 Leases upon the commencement date. The total amount of such lease assets and liabilities is estimated to be EUR 130 million.

Construction at the biorefinery site in Leuna continues with visible progress. The erection of pipe racks, casings, tanks and the substation buildings is nearing completion. Also, large parts of the reactors, furnaces and columns are installed. Currently, focus is on piping and electrification, and with approximately 1,000 workers on site, construction activities have reached their culmination point. The biorefinery obtained the permission to operate according to the German Emission Regulation in May 2023.

The business foundation has been strengthened further. Business function teams and the future operations team are in place. The research, analytics and application development laboratories are also established in Leuna and the teams are working – an important step towards quality assurance, process optimisation and to define future development options.

Commercial activities are proceeding

Commercial activities have continued to proceed positively in different product and application areas. We have made strong progress in qualifying our products for key end-uses, successfully launched commercial partnerships both for UPM BioPura™ renewable bio-monoethylene glycols (bMEG) and UPM BioMotion™ Renewable Functional Fillers (RFF) products. We have a robust commercial pipeline upon start-up of the UPM Biochemicals business. After the launch of UPM BioMotion™ in 2021, joint product development activities with potential customers in the rubber value chain have progressed further as have discussions with especially automotive OEMs, with good results regarding both the technical and commercial viability of the product.

We made further progress in taking UPM BioPura™ bMEG, to market, advancing sales capabilities and extending pre-commercial discussions with potential customers, as well as brand owners in the packaging, textile and automotive end-uses. In July 2023 we launched a partnership with the German sustainable outdoor apparel brand VAUDE to produce the world's first polyester fleece jackets containing renewable chemicals made by UPM. In September and October 2023 we closed and announced the first larger scale sales contracts for our UPM BioPura™ with our partners Dongsung and Brenntag.

The environmental benefits of the biorefinery and the UPM Biochemicals portfolio has been publicly acknowledged with nominations as a finalist in Packaging Europe's "Renewables, Pre Commercialized" category and first position in the sustainability ranking in the European Rubber Journal.

Biofuels business development

In January 2021, UPM announced that it moves forward with biofuels growth plans and starts the basic engineering phase of a next generation biorefinery. The potential biorefinery would have a maximum annual capacity of 500,000 tonnes of high-quality renewable fuels including sustainable jet fuel. The products would significantly reduce the carbon footprint of road transport and aviation, as well as replace fossil raw materials with renewable alternatives in chemicals and bioplastics. Feedstock sourcing will focus on UPM integrated feedstocks from the company's own ecosystem and wood-based residues will play a substantial role. In addition, the biorefinery would use sustainable liquid waste and residue raw materials.

UPM is proceeding with a detailed commercial and basic engineering study to define the business case, select an innovative technology option and sustainable feedstock mix and estimate the investment need.

The site assessment for the potential biofuels refinery was completed in January 2022 and Rotterdam in the Netherlands was selected as the optimal location.

If all preparations are concluded successfully, UPM would initiate the company's standard procedure of analysing and preparing an investment decision.

OL3 power plant project

In 2005, the Finnish Government granted a construction license to Teollisuuden Voima Oyj (TVO) for the OL3 EPR nuclear power plant unit (OL3) to be constructed at the Olkiluoto site. The OL3 project was completed in April 2023. The OL3 plant supplier (the Supplier), a consortium consisting of Areva NP SAS, Areva GmbH and Siemens AG constituting the Supplier are jointly and severally liable for the turnkey delivery of OL3 under the plant contract. UPM participates in OL3 through its shareholding in Pohjolan Voima Oyj (PVO), which is the

majority shareholder in TVO. UPM's indirect share of OL3 is approximately 31%.

According to TVO, the Supplier is responsible under the plant contract for the design, engineering, equipment procurement, equipment manufacture, construction, erection, testing, commissioning, licensing, initial fuel supply and remedying of defects, as well as project management and schedule of the OL3 EPR on a turnkey basis. Due to the Supplier's turnkey responsibility, TVO is only responsible for a limited scope of work under the plant contract. The plant contract includes contractual securities for TVO, including a contract performance bond, a guarantee period bond and liquidated damages for delays, plant performance and plant availability.

According to TVO, under the plant contract, electricity production was scheduled to start at the end of April 2009. However, the completion of the project was delayed.

TVO announced, on 20 April 2023, that TVO submitted to the Supplier the Provisional Takeover Certificate. In addition, TVO confirmed that the commercial operation of OL3 starts at 1 May 2023. The final acceptance of OL3 will take place upon termination of the two-year warranty period. Even after that, the Supplier's liabilities under the warranty will remain in force to a certain extent for eight years at most. The shareholders' right to electricity generated by OL3 and their liability for the annual costs incurred from electricity generation are determined in accordance with TVO's Articles of Association.

OL3 supplies electricity to its shareholders on a cost-price principle (Mankala-principle), which is widely applied in the Finnish energy industry. Under the Mankala-principle electricity and/or heat is supplied to shareholders in proportion to ownership, and each shareholder is, pursuant to the specific stipulations of the respective articles of association, severally responsible for its respective share of the production costs of the energy company concerned.

OL3 increases UPM Energy's electricity generation capacity significantly. The new power plant unit is highly efficient and meets the highest safety standards. Its power generation is CO₂-free and TVO has a secure solution for the final disposal of used fuel.

Events during the reporting period

On 2 February, UPM's Board of Directors revised the Company's dividend policy to be based on earnings instead of cash flow. This aligns the dividend policy with the Company's transformative growth strategy. According to the new policy, UPM aims to pay attractive dividends, targeting at least half of the comparable earnings per share over time.

On 22 March, UPM announced that it plans to permanently close paper machine 6 at UPM Schongau, Germany, reducing the annual capacity of uncoated publication papers by 165,000 tonnes by the end of Q2 2023. UPM also announced that it accelerates the earlier announced stop of production at its Steyermühl mill by six months. The exit of a total annual capacity of 320,000 tonnes of newsprint took place in Q2 2023.

On 31 March, UPM announced that the UPM Paso de los Toros pulp mill had reached technical readiness to start operations. UPM also received approval from the environmental authorities for all the procedures, systems and technologies that are required to fulfil the environmental permit of the mill. This approval precedes the final operating authorisation.

In March, UPM sold all its business operations in Russia to Gungnir Wooden Products Trading.

On 12 April, UPM held its Annual General Meeting.

On 15 April, UPM announced that the UPM Paso de los Toros pulp mill begins operations, and first customer deliveries are expected to ship in May.

On 11 May, UPM announced that it had lowered its outlook due to the slower recovery of deliveries in most businesses and the rapid fall in pulp prices.

On 15 June, UPM announced that the European Commission had decided to close its antitrust investigation in the wood pulp sector. The Commission carried out an unannounced inspection at UPM premises in October 2021. The Commission investigated the possible violation of EU antitrust rules.

On 28 June, UPM announced that employee consultation processes at UPM Schongau, Germany, had been completed and the number of persons affected was 136 for the site. Uncoated publication paper machine 6 was permanently closed. Newsprint paper machine 4 at UPM Steyrermühl, Austria, was also permanently closed.

On 25 July, UPM Communication Papers announced plans to permanently close its Plattling mill in Germany. The planned closure of UPM Plattling's two paper machines would lead to a permanent reduction of 380,000 tonnes of uncoated publication paper and 215,000 tonnes of coated publication paper by the end of 2023. The number of UPM employees affected is 401.

On 4 August, UPM announced that it has received platinum in the EcoVadis responsibility assessment with a high industry score based on the company's sustainability performance in the following four categories: Environment, Labour and Human Rights, Ethics and Sustainable Procurement.

On 19 September, UPM announced that it was joining the UN Global Compact Forward Faster Initiative, which calls upon business leaders all over the world to take measurable action to accelerate the progress of the Sustainable Development Goals. UPM is committed to promoting gender equality, paying living wages and operating in line with an ambitious net-zero emissions target.

On 20 October, UPM announced that the participation process with employee representatives had been concluded and UPM decided to close the Plattling mill in Germany. The mill ceased production in November 2023.

On 24 October, UPM announced that Massimo Reynaudo had been appointed as President and CEO of UPM-Kymmene Corporation as of 1 January 2024.

On 6 November, UPM announced that it had published an updated Green Finance Framework. UPM's updated Green Finance Framework received the highest "Dark Green" shading from S&P Global Ratings, in line with the framework established in 2020.

On 11 December, UPM announced that it had been listed as the only forest and paper industry company in the Dow Jones Global and European Sustainability Indices (DJSI) for the years 2023-2024.

Events after the balance sheet date

On 2 January 2024, UPM announced that it had completed the sale of the Steyrermühl site and all related assets to HEINZEL GROUP, thereby closing the transaction announced in June 2022.

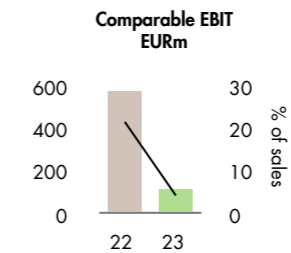
Outlook for 2024

UPM's full-year 2024 comparable EBIT is expected to increase from 2023, supported by higher delivery volumes, continued ramp-up and optimization of the UPM Paso de los Toros pulp mill, and lower fixed costs. Demand for many UPM products is expected to continue gradually improving as the destocking seen in 2023 is largely over. The market conditions in Biofuels are expected to be weaker than last year. UPM continues to manage margins and take actions to reduce variable and fixed costs.

In H1 2024, comparable EBIT is expected to be lower than in H2 2023, due to the timing of the energy-related refunds in Q4 2023 and unusually high maintenance activity in H1 2024. Planned maintenance shutdowns will take place in UPM Paso de los Toros, UPM Fray Bentos and UPM Pietarsaari pulp mills and all three units of the Olkiluoto nuclear power plant.

UPM Fibres

UPM Fibres consists of pulp and timber businesses. UPM Pulp offers a versatile range of responsibly-produced pulp grades suitable for a wide range of end-uses. UPM Timber offers certified sawn timber. UPM has three pulp mills in Finland, two mills and plantation operations in Uruguay and operates four sawmills in Finland.



	2023	2022
Sales, EURm	3,044	2,704
Comparable EBITDA, EURm	407	743
% of sales	13.4	27.5
Change in fair value of forest assets and wood harvested, EURm	-20	11
Share of results of associates and joint ventures, EURm	2	3
Depreciation, amortisation and impairment charges, EURm	-273	-187
Operating profit, EURm	116	517
% of sales	3.8	19.1
Items affecting comparability in operating profit, EURm ¹⁾	—	-53
Comparable EBIT, EURm	116	570
% of sales	3.8	21.1
Capital employed (average), EURm	6,839	5,867
Comparable ROCE, %	1.7	9.7
Pulp deliveries, 1,000 t	4,139	2,761

¹⁾ 2022 includes EUR 55 million settlement loss resulting from replacement of defined benefit pension plan with defined contribution plan in Finland and EUR 2 million reversal of environmental provisions.

2023 compared with 2022

Comparable EBIT decreased due to lower pulp and timber sales prices. Delivery volumes increased and were supported by the UPM Paso de los Toros ramp-up.

The average price in euro for UPM's pulp deliveries decreased by 28%.

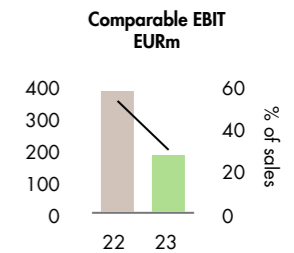
Market environment

- In 2023, global chemical pulp demand was solid. In China, chemical pulp demand varied depending on the end-use and improved in H2 due to restocking. In Europe, chemical pulp demand was weak.
- In 2023, the average European market price in euro was 12% lower for NBSK and 21% lower for BHKP, compared with 2022. In China, the average market price in US dollars was 19% lower for NBSK and 23% lower for BHKP, compared with 2022.
- In 2023, demand for sawn timber was weak and market prices were at a low level.

Sources: FOEX, UPM

UPM Energy

UPM Energy generates cost-competitive, zero-carbon electricity. Operations also include physical electricity and financial portfolio management as well as services to industrial electricity consumers. UPM Energy is the second largest electricity producer in Finland. UPM's power generation capacity consists of hydropower, nuclear power and thermal power.



	2023	2022
Sales, EURm	628	734
Comparable EBITDA, EURm	189	388
% of sales	30.2	52.9
Depreciation, amortisation and impairment charges, EURm	-7	-7
Operating profit, EURm	182	381
% of sales	29.1	52.0
Items affecting comparability in operating profit, EURm ¹⁾	—	—
Comparable EBIT, EURm	182	381
% of sales	29.0	52.0
Capital employed (average), EURm	3,042	3,286
Comparable ROCE, %	6.0	11.6
Electricity deliveries, GWh	12,059	9,442

¹⁾ 2023 includes EUR 3 million charges related to impairment of the Sierilä power plant project and EUR 3 million capital gain on sale of other non-current assets.

2023 compared with 2022

Comparable EBIT decreased due to lower electricity sales price. Power generation volumes were higher due to the OL3 nuclear power plant unit.

UPM's average electricity sales price decreased by 33% to EUR 49.2/MWh (73.3/MWh).

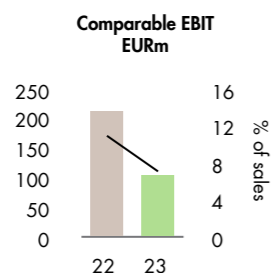
Market environment

- The Nordic hydrological balance was below the long-term average at the end of December. In Finland, the hydrological situation was close to the long-term average.
- The CO₂ emission allowance price of EUR 78.1/tonne at the end of 2023 was lower than at the end of 2022 (EUR 81.5/tonne).
- The average Finnish area spot price on the Nordic electricity exchange in 2023 was EUR 56.5/MWh, 63% lower than in 2022 (EUR 154.0/MWh).

Sources: The Norwegian Water Resources and Energy Directorate, Svensk Energi, Finnish Environment Institute, Nord Pool, NASDAQ OMX, Bloomberg, UPM

UPM Raflatac

UPM Raflatac offers high-quality self-adhesive paper and film products including label materials, graphics solutions and removable self-adhesive products. UPM Raflatac is the second-largest producer of self-adhesive label materials world-wide.



	2023	2022
Sales, EURm	1,485	1,982
Comparable EBITDA, EURm	146	251
% of sales	9.8	12.7
Depreciation, amortisation and impairment charges, EURm	-47	-41
Operating profit, EURm	81	203
% of sales	5.5	10.3
Items affecting comparability in operating profit, EURm ¹⁾	-22	-11
Comparable EBIT, EURm	103	214
% of sales	7.0	10.8
Capital employed (average), EURm	737	681
Comparable ROCE, %	14.0	31.5

¹⁾ 2023 includes EUR 13 million restructuring charges and EUR 2 million impairment charges related to restructuring measures at the UPM Raflatac Nancy factory in France and EUR 7 million of other restructuring costs. 2022 includes EUR 6 million impairment charges of assets impacted by Russia's war in Ukraine, EUR 2 million of AMC acquisition-related costs and EUR 3 million restructuring charges.

2023 compared with 2022

Comparable EBIT decreased due to lower delivery volumes. The positive impact of higher sales prices offset the negative impact of higher variable costs. Fixed costs were lower.

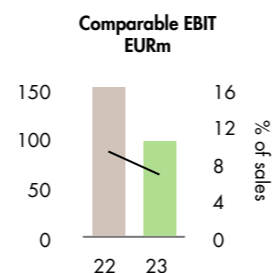
Market environment

- In 2023, global demand for self-adhesive label materials declined compared with 2022 mainly due to destocking in the value chain.
- Global market deliveries of self-adhesive label materials have been sequentially and modestly recovering since Q2 2023.

Sources: UPM, FINAT, Tlmi

UPM Specialty Papers

UPM Specialty Papers offers labelling and packaging materials as well as office and graphic papers for labelling, commercial siliconising, packaging, office use and printing.



	2023	2022
Sales, EURm	1,485	1,677
Comparable EBITDA, EURm	172	230
% of sales	11.6	13.7
Depreciation, amortisation and impairment charges, EURm	-74	-77
Operating profit, EURm	98	153
% of sales	6.6	9.1
Items affecting comparability in operating profit, EURm	-	-
Comparable EBIT, EURm	98	153
% of sales	6.6	9.1
Capital employed (average), EURm	875	889
Comparable ROCE, %	11.2	17.2
Paper deliveries, 1000 t	1,407	1,431

2023 compared with 2022

Comparable EBIT decreased due to lower sales prices and lower delivery volumes. Input costs decreased.

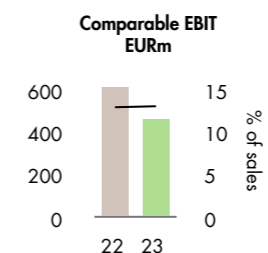
Market environment

- In 2023, global demand for label, release base and packaging papers was soft and impacted by destocking in the value chain and lower consumer confidence. However, demand was improving towards the end of the year.
- Fine paper demand was solid in China and in the rest of the Asia-Pacific region.
- In 2023, market prices decreased compared to 2022.

Sources: UPM, RISI, AFRY, AWA

UPM Communication Papers

UPM Communication Papers offers an extensive product range of sustainably produced graphic papers for advertising and publishing as well as home and office uses.



	2023	2022
Sales, EURm	3,598	4,866
Comparable EBITDA, EURm	544	697
% of sales	15.1	14.3
Share of results of associates and joint ventures, EURm	-1	3
Depreciation, amortisation and impairment charges, EURm	-195	-80
Operating profit, EURm	174	631
% of sales	4.8	13.0
Items affecting comparability in operating profit, EURm ¹⁾	-288	12
Comparable EBIT, EURm	462	619
% of sales	12.8	12.7
Capital employed (average), EURm	1,424	1,506
Comparable ROCE, %	32.4	41.1
Paper deliveries, 1000 t	3,528	4,703

¹⁾ 2023 includes EUR 120 million restructuring charges and EUR 112 million impairment charges of fixed and leased assets related to the closure of the UPM Plattling paper mill in Germany, EUR 30 million restructuring charges relating to the closure of paper machine 6 at the UPM Schongau mill in Germany, EUR 10 million charges related to the sale of the Steyermühl site in Austria and EUR 16 million other restructuring costs. 2022 includes EUR 26 million capital gain on sale of non-current assets, EUR 11 million settlement loss resulting from replacement of a defined benefit pension plan in Finland with defined contribution plan, EUR 9 million restructuring charges, EUR 11 million reversal of restructuring provisions related to Chapelle paper mill and EUR 5 million charges related to prior capacity closures.

2023 compared with 2022

Comparable EBIT decreased due to lower production and delivery volumes. The positive impact of lower variable costs more than offset the negative impact of lower sales prices.

The average price in euro for UPM's paper deliveries decreased by 5%.

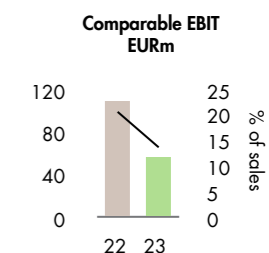
Market environment

- In 2023, demand for graphic papers in Europe was 24% lower than in 2022. Newsprint demand decreased by 22%, magazine papers by 24% and fine papers by 25% compared to 2022.
- In 2023, publication paper prices in Europe were 12% lower and fine paper prices were 1% higher compared to 2022.
- In 2023, demand for magazine papers in North America decreased by 35%, compared to 2022. In 2023, the average price in US dollars for magazine papers increased by 4% compared to 2022.

Sources: PPI/RISI, Euro-Graph, PPPC

UPM Plywood

UPM Plywood offers high quality WISA® plywood and veneer products for construction, vehicle flooring, LNG shipbuilding, parquet manufacturing and other industrial applications.



	2023	2022
Sales, EURm	422	539
Comparable EBITDA, EURm	77	133
% of sales	18.4	24.6
Depreciation, amortisation and impairment charges, EURm	-21	-67
Operating profit, EURm	50	44
% of sales	11.9	8.2
Items affecting comparability in operating profit, EURm ¹⁾	-6	-65
Comparable EBIT, EURm	56	109
% of sales	13.4	20.3
Capital employed (average), EURm	254	247
Comparable ROCE, %	22.2	44.3
Plywood deliveries, 1,000 m ³	429	616

¹⁾ 2023 includes EUR 5 million capital loss resulting from sale of Russian operations and EUR 1 million restructuring costs. 2022 includes EUR 54 million impairment charges of assets impacted by Russia's war in Ukraine, 8 million addition to environmental provisions related to prior mill closures in Finland and EUR 3 million restructuring charges in Russia.

2023 compared with 2022

Comparable EBIT decreased due to lower delivery volumes. Higher sales prices offset the impact of higher variable costs. Fixed costs were lower.

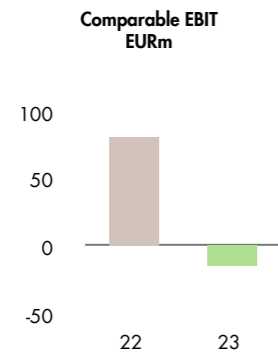
Market environment

- In 2023, demand for spruce plywood and veneer was weak due to low activity in the building and construction industry.
- Demand for birch plywood in panel trading and industrial applications was good in H1 and moderate in H2 2023. In LNG end-use demand for birch plywood was good.
- Destocking in the value chain had an impact on demand, especially in Europe.
- The European birch plywood balance was impacted by leakage of illegal Russian plywood to Europe.

Source: UPM

Other operations

Other Operations includes UPM Forest, UPM Biofuels, UPM Biochemicals, UPM Biomedicals and UPM Biocomposites business units as well as biofuels development and group services. UPM Forest secures competitive wood and biomass for UPM businesses and manages UPM-owned and privately owned forests in North Europe. In addition, UPM Forest offers forestry services to forest owners and forest investors. UPM Biofuels produces wood-based renewable diesel for all diesel engines and renewable naphtha that can be used as a biocomponent for gasoline or for replacing fossil raw materials in petrochemical industry. UPM operates one biorefinery in Finland.



- In 2023, interest in bio-based MEG and renewable functional fillers remained strong in Europe. Strong interest in more sustainable solutions from consumers, brand owners and automotive OEMs, is driving demand for bio-based glycols and renewable functional fillers.
- In 2023, market demand for biocomposites decreased in Europe, driven by the decreasing volumes in building and construction, as well as price sensitivity in consumer products. Market prices were solid and input costs stable. Long term fundamentals for sustainable and renewable materials remained solid.
- For life science products, the demand is driven by the need to implement automated 3D cell based models and to replace animal models in drug development. For clinical products, hospitals continue to explore new sustainable advanced wound care dressings.

Source: UPM

Board of Directors and the Group Executive Team

At the Annual General Meeting held on 12 April 2023, the number of members of the Board of Directors was confirmed as nine, and Henrik Ehrnrooth, Emma FitzGerald, Jari Gustafsson, Piia-Noora Kauppi, Topi Manner, Marjan Oudeman, Martin à Porta and Kim Wahl were re-elected to the Board. Pia Aaltonen-Forsell was elected as a new director to the Board. The directors' term of office will end upon the closure of the next AGM.

Henrik Ehrnrooth was elected as Chair, and Kim Wahl as Deputy Chair of the Board of Directors of UPM-Kymmene Corporation at the Board of Directors' constitutive meeting that took place following the Annual General Meeting.

In addition, the Board of Directors elected the chairs and other members to the Board committees from among its members: Kim Wahl was re-elected to chair the Audit Committee, and Pia Aaltonen-Forsell and Marjan Oudeman were elected as other committee members. Martin à Porta was re-elected to chair the Remuneration Committee, and Emma FitzGerald and Topi Manner were elected as other committee members. Henrik Ehrnrooth was elected to chair the Nomination and Governance Committee, and Jari Gustafsson and Piia-Noora Kauppi were elected as other committee members.

Shares held by the Board of Directors and the Group Executive Team

At the end of the year, the members of the Board of Directors owned a total of 121,283 (380,983) UPM-Kymmene Corporation shares. These represent 0.02% (0.07%) of the shares and 0.02% (0.07%) of the voting rights. At the end of the year, President and CEO Jussi Pesonen owned 602,771 shares. At the end of the year, the other members of the Group Executive Team owned a total of 769,272 shares.

» **Refer Note 3.2** Key management personnel, of the consolidated financial statements 2023 for further information on remuneration and shares held by the members of the Board and the President and CEO and remuneration of the members of Group Executive Team.

Legal proceedings

The Group's management is not aware of any significant litigation at the end of 2023.

In October 2021, the European Commission conducted an unannounced inspection at UPM's premises. According to the

Commission's press release on 12 October 2021, the Commission had concerns that the inspected companies in the wood pulp sector may have violated EU antitrust rules that prohibit cartels and restrictive business practices. On 15 June 2023 the Commission published a release that it had decided to close its antitrust investigation in the wood pulp sector. According to the Commission's release, it had decided to close the investigation after a thorough analysis and careful assessment of all the evidence gathered.

» **Refer Note 9.2** Litigation, of the consolidated financial statements 2023 for information on legal proceedings.

Risks

Risk management

UPM regards risk management as a systematic and proactive means to analyse and manage opportunities and threats related to its business operations. This also includes risks that can be avoided through careful planning and evaluation of future projects and business environments.

Risk management is an integral part of UPM's management system as risk taking is a normal part of business operations. While executing strategies, UPM and its business areas, functions and manufacturing units are exposed to a number of risk and opportunities. Each business area, function and unit is responsible for identifying, measuring and managing of risks related to its own operations, and for reporting on risk exposures, risk management activities and results to its own management team and to the Risk Management function.

The Risk Management Committee, chaired by the CFO, is responsible for recommending risk tolerances and profile to the President and CEO and the Strategy Team. The Strategy Team is responsible for aligning risk management priorities, business and risk management strategies and policies.

The Board of Directors, assisted by the Audit Committee, monitors and assesses the effectiveness of the company's risk management systems and oversees the assessment and management of risks related to the company's strategy and operations. The Audit Committee oversees that risk management activities are aligned with the Risk Management Policy, and that risk assessments are used to guide internal audit activities.

UPM seeks to transfer insurable risks through insurance arrangements for any risks that exceed the defined tolerance.

UPM strives to ensure compliance with the UPM Code of Conduct and other corporate policies. To enhance compliance and mitigate risks, UPM performs risk assessments, training and monitoring at regular intervals.

UPM has developed and implemented a comprehensive internal control system that covers business and financial reporting processes. Internal control is aimed at ensuring that the company's operations are efficient and reliable, and in compliance with statutory requirements, and that the company's financial reporting is accurate and reliable, and reflects operational results. Internal control pertaining to financial reporting is described in the Corporate Governance Statement available in the corporate website.

The main risk factors that can materially affect the company's business, financial results and non-financial performance are set out below. They have been classified as strategic risks, operational risks, and financial risks. Risks may also arise from legal proceedings incidental to UPM's operations.

Strategic risks

Uncertainties in the economic and political operating environment

The main short-term uncertainties in UPM's earnings relate to sales prices and delivery volumes of its products, as well as to changes in the main input cost items and currency exchange rates, most of which are affected by uncertainty in the global, regional or local economic and political conditions. Political developments are causing uncertainties to the global economy. Such uncertainties also affect UPM's customers influencing the demand for UPM's products.

Examples of such developments are the trade tensions between the United States, the EU and China, the nature of the relationship between the EU and the UK after its exit from the EU as well as increased geopolitical tensions that may lead to military conflicts, such as Russia's war in Ukraine, recent emerging conflicts in the Middle East, or economic sanctions, blockades, or export and/or import restrictions that could limit or prevent UPM's business in a country or area or cause adverse effects on energy, logistics or other main input cost items. UPM is also exposed to the impacts of certain governmental protection and trade protection measures such as foreign direct investment restrictions that safeguard domestic industries and other changes affecting international trade. Restrictions on import and export and other measures protecting national interests may affect the availability or cost of necessary raw materials, and changes in the international trade agreements. Changes in fiscal, monetary and other policies taken to respond to the economic impacts of Russia's war in Ukraine and to reduce dependency on Russian resources may cause unintended price volatility or other adverse effects on UPM. Economic downturn, global pandemics, or global power struggles continue to cause high uncertainty to global trade, geopolitics or trajectories of economies.

UPM is especially exposed to the economic and political conditions in countries in which UPM has significant production operations and ongoing investment projects, such as Finland, Uruguay and Germany. UPM also has significant production operations and sales in and to China where the lack of transparency and predictability of the political, economic and legal systems may lead to an increasing uncertainty and risk level when investing in or operating in the country. UPM's subsidiary and employees in Ukraine are exposed to challenging and unpredictable environment stemming from Russia's war in Ukraine.

Cyclical and highly competitive markets

In all markets UPM operates in, the price level is determined by a combination of demand and supply and an imbalance between them could cause the prices of UPM's products to fluctuate significantly. Imbalances in demand and supply may be caused by factors such as decreases or increases in the end-use demand, changes in customer preferences, market adjustments to Russia's war in Ukraine, or a new production capacity entering the market or an old production capacity being closed, all of which may affect both the volume and price level of UPM's products.

Competitor behaviour may also influence the market price development. UPM may, from time to time, experience price pressures from competitors in its main business areas and geographic market areas as well as particularly large fluctuations in operating margins due to this competitive environment.

The majority of UPM's revenue comes from sales of graphic and specialty papers, pulp and label materials, and UPM principally competes with several large multinational paper and forest product companies as well as with numerous regional or more specialised competitors.

¹⁾ 2023 includes EUR 86 million decrease in the fair value of forest assets in Finland resulting from changes in estimates and increase in discount rate and EUR 1 million capital loss resulting from sale of Russian operations. 2022 includes EUR 20 million impairment charges of assets impacted by Russia's war in Ukraine, EUR 8 million gain on sale of other non-current assets, EUR 3 million settlement loss from replacement of defined benefit pension plan in Finland with defined contribution plan and EUR 2 million of AMC acquisition-related costs.

2023 compared with 2022

Comparable EBIT for other operations decreased. The change in the fair value of forest assets net of wood harvested was EUR -82 million (2 million). The cost of wood harvested from UPM forests was EUR 88 million (84 million). The change in the fair value of forest assets was EUR 5 million (85 million). In 2023, this amount includes EUR 86 million decrease in the fair value of forest assets resulting in changes of estimates and increase in discount rate.

Biofuels sales prices decreased, weakening profitability.

Market environment

- The European market for advanced renewable fuels was soft in 2023, especially in Germany. High GHG reduction was achieved in the market, partly due to imported renewable fuels volumes from Asia.

Changes in consumer behaviour

Demand for UPM's products may be affected by the introduction of substitute or alternative products. The demand for graphic papers in the mature markets is forecast to continue to decline. This will likely increase the pressure on UPM's graphic paper deliveries and sales prices as well as the scarcity of recycled fibre. Changes in demand could also cause overcapacity in some of UPM's products, affecting the sales prices and deliveries of such products.

Depending on the product area, the shifts in consumer demand may either have a positive or an adverse effect on the consumption of UPM's products. For example, UPM expects that there will continue to be a growing need for renewable and recyclable solutions, which creates various opportunities for UPM and drive demand growth for most of UPM's products. At the same time digitalisation and e-commerce have changed consumer behaviour and resulted in decline in demand for graphic papers for various end uses.

Changes in legislation

UPM is exposed to a wide range of laws and regulations globally. The performance of UPM's businesses, for example the paper, energy, and biofuels businesses, are to a high degree dependent on the regulatory framework for these areas. Changes in regulation, direct and indirect taxation or subsidies, aid, grants or allowances could have a direct effect on UPM's performance and its relative competitiveness, and structurally restrict or exacerbate UPM's ability to compete for raw material.

UPM also operates in industries that are subject to extensive environmental laws and regulations governing, among others, emissions, water quality, energy efficiency, as well as waste handling, recycling and disposal. Environmental laws and regulations have become more stringent and may continue to develop to be even more stringent due to various global, regional and national level regulatory initiatives. As these environmental laws and regulations are amended or as their application or enforcement is changed, additional costs in complying with new and more stringent regulations may be imposed on UPM.

UPM's operations require UPM to obtain multiple environmental permits and other licences from relevant authorities and comply with their terms and conditions. These permits and licences may be subject to modification, renewal or, subject to certain conditions, revocation by the issuing authorities. UPM monitors regulatory changes in order to better adapt to the effects of such changes.

Shareholdings in Pohjolan Voima Oyj

UPM is a shareholder of Pohjolan Voima Oyj (PVO), which is the majority shareholder of Teollisuuden Voima Oyj (TVO). TVO owns and operates three nuclear power plant units at the Olkiluoto site (OL). PVO supplies electricity to its shareholders on a cost-price principle (so called 'Mankala-principle') that is widely applied in the Finnish energy industry. Under the Mankala principle, electricity and/or heat is supplied to the shareholders in proportion to their ownership and each shareholder is, pursuant to the specific stipulations of the respective Articles of Association, severally responsible for its respective share of the production costs of the energy company concerned. The newest plant unit, Olkiluoto 3 EPR (OL3), started regular commercial electricity production in 2023 and is expected to increase UPM's electricity generation capacity significantly.

In Finland, UPM indirectly owns approximately 31% of the new nuclear power plant unit OL3, through its shareholdings in Pohjolan Voima Oyj. Pohjolan Voima Oyj is a majority shareholder of Teollisuuden Voima Oyj (TVO), holding 58.5% of its shares.

According to TVO, OL3 was procured as a fixed price turnkey project from a consortium formed by Areva GmbH, Areva NP SAS and Siemens AG (the Supplier). As stipulated in the plant contract, the

consortium companies have joint and several liability for the contractual obligations.

According to TVO, under the plant contract, electricity production was scheduled to start at the end of April 2009. However, the completion of the project was delayed. On 20 April 2023, TVO announced that it had submitted to the OL3 plant supplier the Provisional Takeover Certificate. In addition, TVO confirmed that the commercial operation of OL3 starts at 1 May 2023. The final acceptance of OL3 will take place upon termination of the two-year warranty period. Even after that, the Supplier's liabilities under the warranty will remain in force to some extent for eight years at most. The shareholders' right to electricity generated by OL3 and their liability for the annual costs incurred from electricity generation are determined in accordance with TVO's Articles of Association.

In March 2018, TVO announced that it had signed a Global Settlement Agreement (the GSA) with the Supplier and the Areva Group parent company, Areva SA, a company wholly owned by the French state, concerning the completion of the OL3 project and related disputes. According to TVO's announcement, the GSA was amended with agreements signed in June 2021.

In the GSA, the Supplier consortium companies committed to ensuring that the funds dedicated to the completion of the OL3 project are sufficient and cover all the applicable guarantee periods. Consequently, a trust mechanism was set up funded by the Areva companies to secure the funds required to cover Areva's costs for the completion of the OL3 project.

TVO announced in its Interim Report Q3 2023 that the final payment of approximately EUR 193 million in delay compensation agreed upon in 2018 was set off against the final payment installment of the Areva companies under the plant contract in May 2023. Long-term receivables include the additional delay compensation of EUR 56.7 million to TVO, agreed upon in 2021, will become due during the final takeover of OL3 in April 2025 at the earliest.

According to TVO, all payments related to the settlement compensations have been recorded in the consolidated balance sheet as property, plant and equipment.

TVO announced in its Interim Report Q3 2023 that total investment in the OL3 project was approximately EUR 5.8 billion. EUR 250.0 million was transferred from the OL3 investment to operating-time fuel (inventories) when the OL3 plant unit entered commercial operation.

According to TVO, regular electricity production and commercial operation of the OL3 on 1 May, transferred the responsibility of the plant to TVO. The Supplier retains the responsibilities according to the plant contract for warranty periods and for that unfinished work, which has been agreed to be done later at the Supplier's expense.

According to TVO, the company will carefully follow the fulfilment of the conditions according to the 2018 settlement agreement and the amendment agreements signed in June 2021. The Supplier is obligated to complete OL3 in accordance with the plant contract and the amended GSA.

TVO announced in its Interim Report Q3 2023 that Finnish grid operator Fingrid Oyj (Fingrid) has limited OL3's production to a maximum of 1,570 MW. After reporting period on 12 January 2024, the Energy Authority issued a decision (1347/040200/2022) considering TVO's investigation request on the main grid protection system for OL3. The decision states that Fingrid acted in breach of electricity market regulations when transferring obligations related to the maintenance of OL3's operational reliability to TVO and when adopting terms and conditions and determination principles for fees without the Energy Authority's confirmation. The Energy Authority requires that Fingrid submits the determination principles for fees related to system protection or a proposal for another mechanism for confirmation by 11 April 2024.

On 16 December 2020 TVO announced, that the shareholders of TVO, including PVO, had signed an additional shareholder loan commitment, comprising a total of EUR 400 million in new subordinated shareholder loan agreements. According to TVO, with the new shareholder loan commitment, TVO is preparing to maintain sufficient liquidity buffer and equity ratio to complete OL3. On 30 November 2022, TVO announced that the shareholder loan commitment of EUR 400 million, which was originally agreed in December 2020, had been extended by one year until the end of 2023.

On 26 April 2023, TVO announced that S&P Global Ratings had upgraded its long-term credit rating from "BB+" to "BBB-" and affirmed its stable outlook. On 4 May 2023, TVO announced that Moody's Investors Service had assigned a Baa3 long term issuer rating to TVO with a stable outlook. TVO maintains investment grade ratings from all three major credit rating agencies (Fitch Ratings Ltd BBB-/Stable, Moody's Baa3/Stable, S&P Global BBB-/Stable).

According to TVO, there are uncertainties related to the availability of OL3 during the first operating cycle by means of any possible unexpected events. Operational issues in power plants could have an adverse impact on TVO's business and financial position, which could cause adverse impact on the fair value of UPM's energy shareholdings and/or the cost of energy

Climate change

UPM is exposed to a variety of risks related to climate change. Strategic risks related to climate change include risks concerning competition, markets, customers, products and regulation. For example, unpredictable regulation, subsidies or EU policies and resulting national legislation in EU countries may distort raw material, energy and final product markets and changing costs of greenhouse gas emissions may influence UPM's financial performance. Policies and regulations responding to Russia's war in Ukraine and cutting Russian gas supply to Europe may temporarily emphasize energy supply security over climate targets and thus change the trajectory of climate change or slow down the achievement of emission reductions. UPM believes that forest, wood-based products and low-carbon energy hold significant value creation potential with respect to renewable and recyclable products.

Other risks related to climate change particularly concern UPM's supply chain as well as the availability and price of major inputs, such as wood and electricity. Climate change may cause exceptional weather events, such as severe storms, floods and draughts, which could, for example, result in unpredictable hydropower availability and wood harvesting conditions. Exceptionally mild winter conditions with a reduced period of frozen soil in the Nordics could affect the harvesting and transport of wood, consequently undermining the stability of raw material supply and potentially increasing the cost of wood. These could also increase the risk of production limitations.

Biodiversity loss

Biodiversity refers to the diversity and variation of species and ecosystems on our planet. According to the UN, and despite ongoing efforts, biodiversity is deteriorating worldwide. Biodiversity loss is projected to worsen if no mitigation actions are taken. Mitigating climate change is in our view the single most important action to safeguard biodiversity.

UPM's operations are widely linked with biodiversity, and most significant impacts on biodiversity arise from wood sourcing activities. Biodiversity is instrumental in maintaining healthy forest growth and ensuring that forests adapt to the changing climate. Mitigating biodiversity loss also plays an important role in our hydropower plants and production units where we aim to improve living conditions for local fauna and flora with dedicated actions. Deteriorating biodiversity may cause significant adverse effect on the availability and

acceptability of wood raw material needed to produce UPM's products such as pulp, paper, timber and biofuels.

Loss of major customers and industry consolidation

UPM has several major customers, and the largest customer in terms of sales represented approximately 2% of UPM's sales in 2023, and the ten largest customers represented approximately 13% of such sales. Although UPM is not dependent on any specific customer or group of customers, the loss of its major customers, if not replaced on similar terms, could have a material effect on UPM's business. Also, as the size of UPM's customers could increase in connection with industry consolidation, such customers could exert increased bargaining power on all of their suppliers, including UPM. UPM is also exposed to risks related to any deterioration of a major customer group's financial condition.

Product development, innovation and intellectual property rights

Research and product development are an important part of UPM's strategy, particularly with regard to new businesses, such as wood-based biofuels, biochemicals and biomedical. The return on investment of new or enhanced existing products and solutions may not meet targets or improve UPM's competitiveness.

UPM has a broad patent portfolio that provides value creation potential in the future; however, it also exposes UPM to risks related to the protection and management of intellectual property, including patents and trademarks.

Corporate acquisitions and divestments

UPM's strategy is to grow businesses with strong long-term fundamentals and sustainable competitive advantage. This may result in acquisitions of new businesses or divestments of existing businesses or parts thereof. Carrying out corporate mergers, acquisitions and divestments involves risks relating to the successful implementation of a divestment and the ability to integrate and manage acquired businesses, systems, culture and personnel successfully. In addition, the cost of an acquisition may prove high and/or the anticipated economies of scale or synergies may not materialise. Hidden liabilities of an acquired company (e.g., competition law liabilities) may also constitute a significant risk in relation to potential acquisitions.

UPM may divest operations or assets to focus on strategic areas. Any future divestments may be affected by many factors that are beyond UPM's control, such as the availability of financing to potential buyers, interest rates, acquirers' capacity, and regulatory approval processes, and divestments may also expose UPM to indemnity claims. Furthermore, divestments may involve additional costs due to historical and unaccounted liabilities. The profitability of corporate acquisitions and divestments may differ from UPM's expectations.

Operational risks

Fluctuations in the prices of major inputs as well as changes in their availability

The main inputs required in the manufacturing of UPM's products are wood, fibre, chemicals, energy and water. The prices for many of these major production inputs have been volatile in the recent years and are expected to remain volatile for the foreseeable future, which may have an effect on the general profitability of the industries in which UPM operates. Climate change may contribute to the increase of the price volatility of UPM's major production inputs. Also, any changes in the current forestry practices and level of harvesting due to negative public opinion or regulatory restrictions towards harvesting could have an effect on the raw material supply and may increase the cost of wood.

Governmental protection and trade protection measures, amplified by Russia's war in Ukraine and the economic sanctions imposed as a response, could also have an effect on the price and availability of raw materials as countries may, for example, enact further export ban policies to protect forests or to bolster their domestic industries, which could have a material effect on the cost and availability of raw materials for UPM. It is also uncertain how the EU energy policies may affect the availability and costs of fibre and energy. Significant increases in the prices of UPM's major inputs could increase UPM's operating expenses.

Supplier and subcontractor network and raw materials procurement

UPM's business operations depend on a large number of suppliers and contractors. The majority of UPM's need of wood is covered by suppliers, and other production inputs, such as chemicals, fillers and recovered paper, are fully obtained from suppliers. Disruptions in the supply of key inputs or transportation services could have a significant effect on manufacturing operations. This could, for example, result in interruption or downscaling of production, change in the product mix or increased costs resulting from price increases for critical inputs or transportation services as well as shifts in the availability and price of wood. Due to Russia's war in Ukraine, the EU has imposed bans on wood exports and imports and transportation operations directly applying to sourcing of wood and other raw materials from Russia. Supplier consolidation could also limit the number of suppliers from which UPM would be able to source its production inputs and could materially affect the prices paid by UPM for these inputs.

The UPM Supplier and Third Party Code defines the minimum level of performance that UPM requires from its suppliers and third-party intermediaries. UPM carries out supplier risk assessments on, for example, operational, financial, quality and responsibility perspectives. Based on the risk assessment, selected suppliers' activities are evaluated in more detail through annual surveys, supplier audits and joint development plans. If any non-conformities are discovered, the supplier is required to take corrective measures, which UPM follows up on. Some contracts may also be discontinued due to the seriousness of the finding or insufficient corrective measures.

Management and execution of large investment projects

Investment projects in UPM's businesses are often large and take one or more years to complete. Participation in large projects involves risks, such as cost overruns or delays, shortage of labour, financial distress of suppliers, or accidents as well as non-achievement of the economic targets set for the investment. Currently, UPM's largest ongoing investment project is the construction of a new biochemicals refinery in Germany. This project involves the development of new business concepts and technologies.

UPM is responsible for many projects in several of its countries of operation at any given time. All projects involve technical and operational risks, and projects require continuous operational planning, steering and supervision, quality control, input procurement, scheduling as well as resource and cost monitoring. Managing several projects requires that UPM has sufficient resources and efficient processes. Port congestion issues, transportation bottlenecks, accidents in transit, and rising logistics or construction costs, all of which could be resulting from external events or market conditions beyond the control of UPM, may have an effect on the execution or profitability of investment projects. UPM's transformative biochemicals project in Germany is proceeding, but despite efforts, some changes to the detailed timeline of the project may occur due to events affecting project workers, suppliers or infrastructure.

Unavailability of information systems as well as cybersecurity breaches

UPM's production and business operations depend on the availability of supporting information systems and network services. Unplanned interruptions in UPM's or a supplier's critical information system services, loss of critical, financial or personal data due to reasons beyond UPM's or its suppliers' control, such as power cuts, software or telecommunication errors or other major disasters, such as fires or natural disasters, as well as user errors by UPM's own personnel or suppliers, can potentially cause major damage to UPM's businesses and disruptions to the continuity of operations.

UPM's or its suppliers' information systems may be exposed to various cybersecurity risks. Malicious cyber intrusion could cause leakage of sensitive information, violation of data privacy regulations, theft of intellectual property, production outages and damage to UPM's reputation.

Litigation and compliance

UPM operates globally in a large number of jurisdictions and complex regulatory frameworks. UPM may from time to time be involved in litigation and other similar proceedings or it could become subject to various claims and actions based on various grounds.

On a global scale, enforcement activities and jurisdictional reach regarding competition issues and anti-corruption have increased. Also, the recent development of Renewable Energy Sources Act (EEG) related lawsuits in Germany for alleged non-payment of EEG based surcharges may have an adverse impact on UPM, albeit UPM is not currently a party to any such lawsuits. Russia's war in Ukraine triggered many countries to impose several sanctions packages which may increase the risk of investigations, litigations or claims associated with alleged sanctions violations, or retaliatory litigation in Russia. The UPM Code of Conduct sets the standards of responsible behaviour and it covers topics relating to legal compliance and disclosure, anti-corruption, competition law, HR practices, human rights, responsible sourcing and environmental matters.

UPM's environmental performance and social responsibility play a significant role in UPM's ability to operate and influence the long-term success of its businesses. UPM also measures and publishes information on its environmental, social and governance matters, for which there is an increasing risk of investigation or litigation from activist or other stakeholders on alleged misrepresentation. UPM has significant manufacturing operations or sourcing in several developing countries, some of which are perceived as highly corrupt or corrupt according to Transparency International. In these countries, there is an increased risk of corruption, for example in relation to interaction with government officials and in the use of intermediaries when applying for permits and licences requiring governmental approval. Breaches of applicable laws and regulations or corporate policies by UPM employees may lead to legal processes, sanctions and fines as well as reputational damages affecting UPM's operations.

Industrial actions

UPM is subject to risk of industrial actions, which could disrupt its business operations or the business operations of its stakeholders. Uncertainty may increase in the Finnish labour market amid the announcement of the Finnish Forest Industries Federation in fall 2020 to transfer collective bargaining to companies. For example, in the beginning of 2022, members of the Paperworkers' Union, the Finnish Electrical Workers' Union and the Trade Union Pro started strikes at UPM mills in Jämsänkoski, Kouvola, Lappeenranta, Pietarsaari, Rauma, Tampere and Valkeakoski, Finland. Any strike or other industrial action in UPM's business operations or related sectors could have an effect on UPM's business operations. For example, industrial actions in the transport sector or among other stakeholders important to UPM, may disrupt UPM's operations. Additionally, public dissatisfaction with UPM's labour-related decisions may, in extreme cases, lead to unanticipated boycotts or disruptions at its facilities or construction sites.

A natural disaster, fire, accident or other calamity at UPM's production facilities

UPM operates a significant number of production facilities globally that are exposed to risks related to environment, fires, natural events, machinery breakdowns, site security and occupational health and safety risks. If UPM's production facilities were to experience a major accident or were forced to shut down or curtail production due to such unforeseen events, such as a leak or spill due to malfunction or human error, this could cause major interruptions in UPM's operations and result in significant costs in order to clean up and repair any potential damages to the production plant and the surrounding areas. Any failure to maintain high levels of safety management could also result in physical injury, sickness (including pandemics related infection outbreaks) or liability to UPM's employees, contractors or third parties. These risks are managed through established management procedures, health and safety precautions and loss prevention programmes. UPM's insurance programme provides coverage for insurable hazard risks, subject to insurance terms and conditions.

Forests and plantations

UPM's plantations and forests may be affected by the impacts of climate change, which include more frequent and severe extreme weather conditions such as heavy rainfall, storms, floods and drought. Climate change is expected to have the biggest physical effect on UPM's forest lands in Finland, where temperatures are expected to rise more significantly and rapidly compared with other countries where UPM owns forest. Although forest growth will likely accelerate, particularly in Finland, due to the longer growing season, extreme weather conditions will intensify, presenting new risks. The increase of droughts and forest fires are estimated to pose the most significant risks for UPM's forests and plantations. Also, damages caused by insects and tree diseases are becoming increasingly common, which could have an effect on the value of UPM's forest assets. Should these risks materialise, they could harm UPM's forest and plantations resulting in production interruption and additional costs.

Strategic partners

UPM collaborates with many partners. For example, product development in the biofuels, bioenergy or biochemicals increases the importance of partnerships in the search for new products and businesses or higher efficiency. Partnerships may, however, create risks to UPM's profitability, for example, through changes occurring within the partner entity or changes in how the partnership operates. UPM is also subject to the risk that its strategic partners do not comply with UPM's Code of Conduct with anti-corruption, competition law, HR practices, human rights, responsible sourcing and environmental matters.

Partnership arrangements may also be too rigid to enable timely changes required, for example, in connection with changes in the market conditions or the economy. UPM's partners may have different targets with respect to the business of the partnerships. As UPM may not have sole control over strategic direction and operational output of these entities, its partners may have the right to make certain decisions on key business matters with which UPM does not agree. In some cases, strategic partners may choose not to continue partnerships that they have with UPM. Russia's war in Ukraine and the resulting adverse economic conditions may cause financial stress to a strategic partner and trigger unexpected negotiation or other processes causing delays or cost increases for UPM.

Intellectual property rights of third parties

Molecular bioproducts form one of UPM's three strategic focus areas for growth. Initiatives within this strategic focus area are technology-intensive and require increasing investments in such technologies either through internal development or through third party licences or technological partnerships. In addition to UPM's own IPR portfolio, UPM licences certain technologies developed by third parties. Evaluating the rights related to the third party technologies UPM uses or intends to use is increasingly challenging. Licensing third party technology exposes UPM to such risks as the increase of overall licensing costs, loss of negotiation power, the validity of such licensing arrangements and potential infringement claims, which could restrict UPM's ability to use certain technologies, prevent the delivery of UPM's products and/or result in costly and time-consuming litigation. Risk related to IPR claims and disputes relating to technological partnerships have been assessed to increase.

Building capabilities to growth areas

The success of UPM's business largely depends on the ability to build and retain the necessary new capabilities required for future growth. UPM is continuously developing its employee experience, leadership culture, evaluating its recruitment, compensation policies and career development opportunities and taking measures to attract and retain diversely skilled personnel and individuals with rare and pivotal specialist knowledge for current and future growth areas.

Financial risks

Financial risks are described in consolidated financial statements 2023.

TYPE OF RISK	CONSOLIDATED FINANCIAL STATEMENT NOTE
Credit risk	4.6 Working capital
Liquidity and refinancing risk	5.1 Capital management
Interest rate risk	6.1 Financial risk management
Foreign exchange risk	6.1 Financial risk management
Electricity price risk	6.1 Financial risk management
Counterparty risk	6.2 Derivatives and hedge accounting

Non-financial information

To steer its responsibility activities, UPM has established a set of responsibility focus areas with targets and key performance indicators. They are reviewed every year based on a materiality analysis (page 63). The focus areas cover economic, governance, social and environmental responsibility. Mitigation of and adaptation to climate change is one of the most material topics, and it is relevant for UPM throughout the whole value chain: land use, sourcing, production and products. Thus, climate-related targets are established for all of these areas. Further material topics are related to biodiversity and human rights, for example.

UPM's Biofore strategy guides the company in achieving its responsibility targets for 2030 and in contributing to the Sustainable Development Goals (SDG) of the 2030 Agenda for Sustainable Development published by the UN.

Connecting sustainability performance to financing demonstrates the importance of responsible business practices to UPM's long term value creation. UPM's revolving credit facility is linked to the long-term biodiversity and climate targets, and three green bonds have been issued since 2020. Since January 2022, responsibility-related measures are included in UPM's management remuneration.

Based on international frameworks and commitments

UPM respects international human rights agreements and agreements concerning labour rights, including the UN Declaration of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, and the OECD Guidelines for Multinational Enterprises.

Since 2003, UPM is a signatory of the UN Global Compact initiative, whose ten universal principles are derived from international agreements in the areas of human rights, labour standards, the environment and anti-corruption. In 2023, UPM joined the UN Global Compact's Forward Faster initiative.

Regarding climate change UPM committed to the Science Based Targets initiative (SBTi) in 2017 and received validation of its tightened CO₂ targets in 2020. To further strengthen its climate approach, UPM committed to the UN's Business Ambition for the 1.5°C pledge and joined The Climate Pledge to reach the targets set by the Paris Agreement by 2040. In 2023, as part of the Forward Faster initiative, UPM also committed to set Net Zero targets as defined by SBTi. The work will be finalised during 2024.

UPM follows the Finnish Corporate Governance Code issued by the Securities Market Association and complies with all of its recommendations.

UPM Code of Conduct and other corporate policies

UPM's decision making, management and operations are guided by UPM values and the UPM Code of Conduct. Legal compliance and responsible practices are the foundation of all of UPM's businesses and create long-term value for both UPM and its stakeholders. The UPM Code of Conduct emphasises UPM's commitment to business integrity and responsible business operations, manifesting the company's guiding principles.

The UPM Code of Conduct is approved by the Board of Directors as UPM's highest governance body. It is complemented by more detailed policies approved by the Board of Directors and rules, statements and standards approved by the Group Executive Team, business areas or global functions. These policies, rules, statements and standards cover such topics as treasury, taxes, disclosures, insider matters, anti-corruption, competition law, confidentiality, human resources, responsibility, forestry, information security and data protection, environment and safety.

UPM expects its suppliers, third party intermediaries and joint venture partners to apply the same principles as in the UPM Code of Conduct and to fulfil criteria concerning social and environmental responsibility. These requirements are defined in the UPM Supplier and Third Party Code, latest updates effective as of beginning of 2020.

The UPM Code of Conduct was last updated in 2022.

Roles of the group management and functions in leading non-financial matters

The Board of Directors, with the assistance of the Audit Committee, is responsible for monitoring compliance with applicable legal and regulatory requirements and with the UPM Code of Conduct and other corporate policies. The non-financial information in this Report of the Board of Directors is reviewed by the Board as part of the approval process. In addition, the Audit Committee reviews reports on non-financial matters and related reporting on a regular cadence. The Audit Committee also oversees procedures for treatment of complaints and concerns received by the company, anonymous or otherwise. As part of the committee's compliance review, the committee is provided with a quarterly report by the company's Chief Compliance Officer, and a report of submissions under the company's Report Misconduct channel by the Head of Internal Audit. The Remuneration Committee is responsible for the review, evaluation and preparation of the company's incentive schemes and annually commencing plans for the Board's approval, including their linkage to company's ESG performance. The Nomination and Governance Committee reviews regularly the adequacy of the Board and committee charters also related to ESG topics.

In line with its main duties and responsibilities, the Board reviewed and approved UPM's strategic objectives and the strategic plans of the Company and its business areas during its strategy session in May 2023. The main focus areas of the UPM Biofore strategy continue to be performance, growth, innovation, responsibility and portfolio development. This strategy is enhanced by the UPM purpose: We create a future beyond fossils (read more on pages 20-21). An essential part of the Board's annual strategy work is to review and assess strategic and operational risks and opportunities (see UPM Corporate Governance Statement 2023). These risks and opportunities and their impact on operations and strategy are described on pages 34–35.

Since 2022, the Board has included measures related to environmental, social and governance (ESG) themes in the Company's performance share plan (PSP), one of its long-term incentive plans. The PSP includes three distinct ESG performance measures and the total weighting of these measures accounts for 20% of all measures.

The President and CEO's duty is to manage and oversee UPM's day-to-day business operations in accordance with the instructions and orders given by the Board of Directors. In the operative management of the Company, including the management of corporate responsibility, the President and CEO is assisted by the Group Executive Team, the Business Area Boards, the Strategy Team, the Disclosure Committee and the Ethics Advisory Committee.

The Group Executive Team approves and executes group-level rules, guidelines and procedures relating to amongst others corporate responsibility, including possible impacts on economy, environment and people, determining courses of action and guiding development work. The role of the Business Area Boards is business area level decision making in matters pertaining to amongst others corporate responsibility and they oversee implementation of the group-level rules, guidelines and procedures in the Business Area. The Strategy Team assists the President and CEO in matters pertaining to amongst others the integration of corporate responsibility into group strategies for Boards' approval and

preparation of changes in responsibility focus areas and targets for the Group Executive Team's approval.

The Ethics Advisory Committee is chaired by the General Counsel and its other members are the EVP of the UPM Human Resources function, the Chief Audit Executive and the Chief Compliance Officer. The Ethics Advisory Committee supports the President and CEO and the Board's Audit Committee in their responsibilities relating to monitoring compliance with legal and regulatory requirements and company policies and the effectiveness of UPM's compliance system. The Disclosure Committee monitors, assesses, gives recommendations and guidelines regarding external disclosure pertaining to amongst others corporate responsibility. The Disclosure Committee is chaired by the CFO and its other members are the General Counsel, the EVP of UPM Stakeholder Relations function and the Head of Investor Relations.

In practice, corporate responsibility work takes place in businesses and functions, and in the group's Responsibility team, which co-ordinates the projects carried out by businesses and functions.

UPM Legal Function and its Compliance team manage legal compliance programmes and arrange related training at regular intervals for specific target groups, which have been defined based on risk assessments. UPM Sourcing organisations follow clearly defined selection and follow-up processes when evaluating suppliers. Reliable long-term deliveries, product and service quality, cost competitiveness, financial sustainability of suppliers, social and environmental responsibility and product safety are the key factors when selecting and evaluating suppliers.

While executing strategies, UPM and its business areas, functions and production units are exposed to a number of financial and non-financial risks and opportunities. Each business area, function and unit is responsible for identifying, measuring and managing risks related to its own operations, and for reporting on risk exposures, risk management activities and results to its own management team and to the Risk Management Function.

Management of non-financial matters

UPM's responsible thinking starts with anticipating, mitigating and managing risks, and extends to creating a competitive advantage and long-term value.

UPM continually strives to reduce its risk exposure and improve its performance by using tools such as certified management systems. All production sites have a certified ISO 14001 environmental management system, except the new pulp mill in Uruguay which started production in 2023 and two Raflatac sites in Germany which were acquired at the end of 2022. Certification is expected during 2024. Nearly all production sites and wood sourcing operations implemented integrated management systems for environmental protection, quality management and occupational health and safety in accordance with ISO 14001, ISO 9001 and ISO 45001 standards. All pulp and paper mills in the EU, as well as the UPM Fray Bentos pulp mill in Uruguay and the UPM Changshu paper mill in China, also adhere to the EU's Eco-Management and Audit Scheme (EMAS). Many of the sites also have energy management systems certified under ISO 50001 or the Finnish ETJ+ system, and food safety management systems certified under ISO 22000, if relevant.

Should stakeholders have any concerns or suspect misconduct, they are encouraged to contact UPM or to use the UPM Report Misconduct channel. The service is available on the corporate website for both the company's employees and external stakeholders. Operated by an independent external service provider, the channel is accessible in over 40 languages, 24/7. In 2023, 83 (54) cases were reported either through the UPM Report Misconduct channel or directly to Internal Audit or the Compliance team. 10 (9) of these cases related to alleged

discrimination or harassment. 21 (8) cases led to disciplinary action including warnings and terminations of employment.

Reporting framework used

For its Group-level sustainability reporting UPM follows the Global Reporting Initiative's (GRI) Sustainability Reporting Standards, the Task Force on Climate-related Financial Disclosures (TCFD), the Task Force on Nature-related Disclosures (TNFD) as well as the AA 1000 AccountAbility Principles Standard. The respective information is assured by an independent third-party, PricewaterhouseCoopers, Oy (pages 118–119).

Committed to anti-corruption

The UPM Code of Conduct underlines the company's zero tolerance attitude towards corruption and bribery in any form. UPM Anti-Corruption Rules explain prohibited conduct and expected ethical behaviour in further detail.

UPM performs anti-corruption risk assessment on a regular basis. The 2023 compliance risk-assessment process included a top-down risk discussion (including corruption) with the management of each business area. All UPM group entities were also assessed on the basis of country risk and complexity of operations. UPM operates globally and has significant manufacturing operations in several emerging market countries. Such operations require a number of permits and other licenses from the relevant authorities. Some of the countries where UPM operates are perceived as highly corrupt or corrupt according to Transparency International. In these countries, there is an increased risk of corruption, for example in relation to interaction with government officials and in the use of intermediaries when applying for permits and licenses requiring governmental approval.

Due diligence of suppliers and third parties with whom UPM does business is an essential part of UPM's anti-corruption compliance programme. UPM requires that due diligence is performed before entering into or renewing any contract with a third party that meets specified criteria. UPM requires anti-bribery contract terms to be included in agreements with such third parties outlining the third party's commitment to compliance with applicable anti-bribery laws and UPM's right to audit the third party to verify compliance with these terms. UPM also has corresponding due diligence procedures for joint ventures, including mergers and acquisitions.

UPM has a dedicated anti-corruption e-learning platform. The anti-corruption training covers all white-collar employees. In 2023, the company organised tailored anti-corruption training workshops for selected target groups across the company and performed risk-based compliance reviews in selected jurisdictions and operations.

Respect for human rights

UPM is committed to respecting and promoting human rights in line with the United Nations Guiding Principles on Business and Human Rights. UPM has assessed all its own operations and activities and has identified the potential human rights issues and impacts. When considering both the severity and likelihood of these potential issues and impacts, UPM considers the salient human rights issues in the company's sphere of influence to be environmental pollution, occupational health and safety (OHS), working conditions, protection of children, and forced labour. UPM regularly analyses the saliency of its human rights impacts recognising that impacts on people continue to evolve as business changes and the approach to due diligence develops.

UPM reviews its human rights risks as part of the UPM compliance process quarterly. In 2023, the assessment of human rights issues on a business area level as well as the integration of the process to unit specific management systems continued. UPM also started a human

rights impact assessment across its operations in Uruguay in collaboration with an external partner. The focus on strengthening UPM's human rights due diligence practises in investments and business development projects as well as in contractor management also continued.

Responsible sourcing

UPM requires its suppliers, third party intermediaries and joint venture partners to apply the same principles as in the UPM Code of Conduct including commitment to anti-corruption, environmental and social responsibility, safe products, human rights and occupational health and safety practices.

Transparent supplier requirements are the basis for responsible sourcing. These requirements for suppliers are defined in the UPM Supplier and Third Party Code. A number of additional requirements are in place for the sourcing of wood, chemicals, pulp and packaging materials, as well as for safety and logistics. All contractors working on site go through UPM's safety requirements and a web-based safety induction training.

UPM identifies its supply chains with a high risk of potential negative environmental and social impacts. These responsibility-related high-risk suppliers are determined by the country of origin, sourced material or service, and the UPM supply chain ESG risk register which holds UPM's view on company and business area relevant risks on people and the environment. UPM also uses EcoVadis and other assessments, supplier audits and joint development plans to carry out more detailed evaluations of suppliers' activities.

For the first time in 2023, our various responsible sourcing practices and priorities were formulated into a cohesive, over-arching sustainable supply chain programme. Each element entails clear instructions regarding the relevant sourcing and supply chain management practices and implications in UPM, as well as tangible guidance, requirements and expectations for UPM's suppliers. Effective implementation is managed and tracked through our 2030 responsibility targets and performance indicators.

UPM continued its co-operation with Together for Sustainability (TfS), a chemical industry initiative that promotes and improves sustainability practices within the supply chains. In 2023, UPM conducted some 540 (520) EcoVadis environmental and social assessments and 95 (121) supplier audits. In addition, about 890 (360) contractor reviews with a focus on working conditions were carried out in Uruguay.

Social and employee-related matters

UPM's responsibility focus areas in social and employee-related matters are: learning and development, responsible leadership, diversity and inclusion, fair rewarding as well as safe and healthy working environment.

UPM is committed to active employee participation and consultation, organised in accordance with international and national rules and regulations.

UPM aims to empower and engage employees at all levels through responsible leadership. UPM encourages its employees to pursue professional growth, expects development and supports them in learning skills and developing them further.

UPM respects the privacy of employees and promotes equal opportunities and objectivity in employment and career development. All UPM employees are treated as individuals regardless of gender, age, ethnic origin, nationality, etc. Also in 2023, UPM carried out a gender pay equity review process closing the unexplained gender pay gap and a living wage review process to make sure that salaries are sufficient everywhere. To achieve and follow-up the set target of greater

female representation in professional and managerial roles has been in focus for different organisations.

In its People Strategy, UPM focused on leadership and creating a safe, inclusive and diverse working environment, as well as aiming higher in performance and ensuring the growth of our people. The aim is to create a unique, positive UPM experience and to develop future ways of working and collaborating, supported by attractive culture, workspace and technology. In 2023, UPM continued with its programme to develop the UPM experience and ways of working, having digital capabilities in focus for operators and tools for citizen development for UPMers. The enabling performance approach by strengthening feedback culture, agile goal setting and frequent manager-employee discussions is being further strengthened.

Development programmes to support growth and performance were continued and implemented. The key areas of development have been inclusive and purposeful leadership, high-performing teams, self-leadership and coaching. Development planning and related tools were developed and a campaign to support UPMers in their development done. To further develop inclusive leadership and culture, UPM continued to have a dialogue and train UPMers. In 2023, an Employee Resource Group (BeU) was set-up to support the LGBTIQ community, create awareness and develop inclusive culture at UPM.

UPM promotes employees' health and wellbeing. In 2023, UPM continued to implement its health and wellbeing vision, which takes a holistic approach on themes: body, mind, heart and soul. Safety is an essential part of UPM's activities and business management system. Equal safety requirements are applied to all employees, visitors and contractors working at UPM's premises. Proactively thinking about the safety of employees and contractors remained an important focus area in 2023.

The requirements concerning process safety have been clarified with a new safety standard and process safety has been in focus especially in the new investment projects of the biofuel and biochemicals businesses. In 2023, a new safety project was started with a dialogue with employees to engage UPMers to give input about how does the safety look from employee perspective, what works well and what could be improved.

Product stewardship

The majority of UPM's products are made from renewable raw materials and are recyclable. UPM products help to mitigate climate change by replacing fossil-based products with bio-based renewable alternatives. Product stewardship covers the entire lifecycle of all UPM products from the development phase to the end-use and beyond.

In 2023, UPM's Sustainable Product Design concept implementation continued with several projects. The approach applies lifecycle thinking and lifecycle assessment data, both of which are integrated in sustainable product design practices. During the process, the whole raw material chain, production and distribution efficiency, sustainable use and circularity are considered.

UPM provides product declarations to provide customers with easy access to information concerning the products' environmental and product safety aspects or the wood origin. Together with a number of paper and chemical companies the exchange of information in the supply chain was improved. This facilitated a pre-assessment of chemical use and to ensure compliance with legislations and ecolabels.

Most UPM products are certified with widely recognised ecolabels, such as the EU ecolabel and national ecolabels for graphic paper or ISCC and RSB certification for biofuels, biocomposites and labels.

All UPM pulp mills, UPM Raflatac sites, UPM Specialty Papers' production lines and UPM Kymi paper mill have implemented food

management systems in accordance with ISO 22000. The respective products are designed and produced to meet food packaging requirements.

In 2023, UPM developed internal guidance on how to make sustainability claims in its communication and marketing.

Environment

UPM's responsibility focus areas in environmental matters are forests, biodiversity, water, waste and climate. UPM uses raw materials, water, energy and nutrients in a responsible manner and continuously improves its energy, resource and cost efficiency.

UPM is committed to sustainable forestry and third-party-verified FSC™ and PEFC chain of custody certification covers all sites using wood raw materials. This ensures that the wood is legally sourced from sustainably managed forests. All UPM-owned forests are certified, or in the process of certification if acquired recently.

According to the water risk analysis carried out with the WWF Water Risk Filter in 2021, our production sites are in areas with low to medium water scarcity. A comprehensive water risk analysis has provided 2030 and 2050 scenarios of water risks, based on climate and socio-economic changes to enable us to understand and prepare for future water risks and opportunities. The water withdrawn by UPM plants comes from rivers, lakes or groundwater resources. UPM uses water responsibly in terms of the company's water usage and effluent quality. If the price of raw water were to increase by EUR 0.01 per cubic metre, it would mean additional water costs of approximately EUR 4 million annually. In 2023, wastewater volume decreased by 10% per tonne of pulp and increased by 23% per tonne of paper. The increase for paper is due to temporary market-related shut-downs.

Circular bioeconomy is at the core of our operations. We have developed innovative ways to reduce and recover waste and to use side streams, residues and recovered materials. For example, tall oil is used for the production of UPM BioVerno renewable diesel and naphtha and ash is utilised e.g. in soil stabilisation, cement industry or as raw material for paper filler production. Regulatory changes may have an impact on the options for waste or residue use, either by restricting the end uses and thus causing higher costs for alternative solutions, or by creating new opportunities. In 2023, 87 (90)% of UPM's process waste was recycled or recovered, of which 30 (21)% is energy recovery.

In 2023, UPM's environmental investments totalled EUR 60 million (11 million). The significant increase compared to previous year was mostly due to investments in electric boilers at eight mills, totalling EUR 35 million. In addition, at UPM Kaukas over EUR 2 million were invested in wastewater management related renewals and upgrades. UPM's environmental costs, which were mainly attributable to effluent treatment and waste management, totalled EUR 121 million (123 million), including depreciation.

The company-wide Clean Run concept, launched in 2012 and developed since to cover all operations and being holistic environmental management system, aims to improve UPM's environmental performance by bringing environmental issues to the forefront of everyday work and enabling consistent way of working whatever operation in concern. In 2023, UPM strengthened its management of environmental topics by revising and standardizing its Clean Run concept. The new Clean Run standard will be implemented globally during 2024. All sites systematically follow up any deviations, proactively report observations and near misses, carry out walks and discussions, share best practices and compile detailed risk assessments. Approximately 1,500 (1,400) environmental walks were organised and 2,600 (2,100) preventive environmental observations and near misses were reported in 2023.

In 2023, the number of environmental non-conformances increased to a total of 28 (22) deviations from permit, contractual or other obligations. 5 cases were related to air, 20 to water, 2 to soil and water and 1 to waste. All deviations were reported to the authorities and, where relevant, to local stakeholders. In all cases, appropriate measures were taken to normalise the situation, and will be taken to prevent similar occurrences. In 2023, one major environmental incident occurred at UPM's new Paso de los Toros pulp mill in Uruguay (read more on page 93). In January 2024, Uruguay's Ministry of Environment imposed a sanction of approx. USD 188,000 on the company for non-compliance with the environmental management plan for the UPM Paso de los Toros pulp mill. This sanction will be due for payment in 2024. In 2023, UPM was not required to pay any significant fines due to environmental non-conformances.

Biodiversity and ecosystems

Since 2022, the importance of biodiversity has been reflected in UPM's broader approach towards biodiversity to cover other areas beside forests, e. g. streams and mill sites, and in establishing it as an own focus area.

Related forestry, UPM continues to carry out biodiversity activities as part of UPM's global Forest Action programme. Targets for net-positive impact on biodiversity in own forests in Finland and for UPM's land in Uruguay have been set with dedicated key performance indicators to measure the progress. UPM's stream water programme strives to remove obstacles to fish migration, restore fish stocks and improve the living conditions of all stream fauna throughout Finland. Possible impacts on biodiversity from industrial emissions are minimised by several measures like using best available techniques, monitoring and continuous improvement processes.

In 2023, UPM developed and tested tools, methodology and guidance for setting science-based targets for the preservation of nature as part of the Science Based Targets Network (SBTN) Corporate Engagement Program.

Climate

The management of climate change related issues is integrated into the management of other non-financial issues and is reported to the Board depending on the context and matter. For example: 1) risks are reported to the Board by CFO, 2) related compliance and regulatory issues are briefed quarterly to the Audit Committee (Board) by the Compliance Officer, 3) annual progress on 2030 responsibility targets is reported by EVP Stakeholder Relations or 4) if there are specific climate-related topics, then the responsible topic owner briefs the Board. Additionally, major climate-related issues such as scenario analyses, commitments and UPM's overall approach of acting through forests, emission reductions in production and supply chain and through climate-positive products are reported directly to UPM management bodies led by CEO.

UPM's position and resilience in different climate scenarios (IPCC RCP 2.6, RCP 4.5, RCP 8.5, IEA B2DS, IEA NPS and IEA CPS) have been evaluated for the businesses and functions from both physical and transitional angles, involving expertise from scientific community. Generally, in low- and medium-emission scenarios the transition impacts play a bigger role and UPM is well positioned as its business portfolio allows for flexibility regarding recognised risks and opportunities. In the high-emission scenario physical impacts dominate with severe consequences not only for UPM but for the ecosystems and societies across the globe.

UPM's targets for reduction of fossil CO₂ emissions are 65% reduction of Scope 1 and 2 emissions from 2015 level and 30% reduction of emissions from sourced materials and logistics (Scope 3)

from 2018 level by 2030. These targets were validated by the Science-Based Targets initiative (SBTi) to be aligned with the 1.5° C pathway according to the Paris agreement. In 2023, fossil CO₂ emissions (Scope 1 and 2) summed up to 3.7 (4.5) million tonnes, which is a decrease of 17% compared to 2022, and a decrease of 45% compared to 2015. The Scope 3 emissions for materials and logistics summed up to 4.7 (4.8) million tonnes CO₂, a reduction of 23% compared to 2018. Overall Scope 3 emissions were 7.6 (7.4) million tonnes. In 2023, scope, assumptions and factors used in Scope 3 calculation were reviewed and updated. Detailed information on 2023 data, methodology and assumptions is available in UPM's GHG inventory, published on upm.com. In 2023, UPM committed to set long-term Net

Zero targets as defined by SBTi. The work will be finalised during 2024.

Further targets related to climate change are climate-positive land use and developing climate-positive product portfolio. Concerning land use, forestry and product portfolio, UPM has engaged with scientific partners in order to gain credible data and approaches.

UPM favours the use of renewable and other carbon-neutral energy sources. Biomass-based fuels make up 76% (65%) of fuels used by UPM worldwide. If UPM needed to buy certificates to cover its whole direct fossil CO₂ emissions, and if the price of CO₂ certificates were to rise by EUR 10 per tonne, it would mean additional costs of approximately EUR 21 million annually.

UPM climate and nature related disclosures according to TCFD (Task Force on Climate-related Financial Disclosures) and TNFD (Task Force on Nature-related Financial Disclosures) are presented in the UPM annual report as follows:

REQUIREMENTS	PAGES
GOVERNANCE	
a) The role of the Board in overseeing climate and nature-related issues	Pages 138–139, paragraph "Roles of the group management and functions in leading non-financial matters"
b) The role of management in assessing and managing climate and nature-related issues	Pages 138–139, paragraph "Roles of the group management and functions in leading non-financial matters"
STRATEGY	
a) The climate and nature-related risks and opportunities over the short, medium and long term	Pages 133–137, chapter "Risks" Pages 34–35, chapter "Risks and opportunities" Pages 10–13, chapter "Beyond fossils"
b) The impact of climate and nature-related risks and opportunities on business, strategy and financial planning	Pages 34–35, chapter "Risks and opportunities" Pages 10–13, chapter "Beyond fossils" Page 135 paragraph "Climate change", 137 paragraph "Forest and plantations"
c) The resilience of strategy, taking into consideration climate and nature-related scenarios	Page 141, paragraphs "Environment", "Climate" and "Biodiversity and ecosystems" Pages 10–13, chapter "Beyond fossils"
RISK MANAGEMENT	
a) Processes for identifying climate and nature-related risks	Page 133, paragraph "Risk management" Pages 138–139, paragraph "Roles of the group management and functions in leading non-financial matters"
b) Processes for managing climate and nature-related risks	Page 133, paragraph "Risk management" Pages 138–139, paragraph "Roles of the group management and functions in leading non-financial matters"
c) How processes for identifying, assessing, and managing climate-related risks are integrated into overall risk management	Page 133, paragraph "Risk management" Pages 106–110, chapter "Governance"
METRICS AND TARGETS	
a) Metrics used to assess climate and nature-related risks and opportunities	Pages 14–15, "Key figures 2023" and pages 32–33, "Responsibility targets"
b) Climate: Scope 1, Scope 2 and Scope 3 emissions, and related risks	Page 141, paragraph "Climate" Page 91, graph "Sources of UPM's greenhouse gas emissions"
Nature: Positive impact on forest biodiversity and developing a monitoring system and obstacle-free streams, and related risks	Page 141, "Biodiversity and ecosystems" and pages 84–85 "Enhancing Biodiversity" Page 83, "Study on the biodiversity of clearcut areas", pages 84 "Landlocked salmon returning to the river" and page 85 "Setting science-based targets for nature conservation"
c) Targets used to manage climate-related risks and opportunities and performance against targets	Page 143, table "Material non-financial topics and key performance indicators" Pages 32–33, table "Responsibility targets"

Material non-financial topics and key performance indicators

TOPIC	MANAGEMENT	KEY PERFORMANCE INDICATOR	2023 RESULTS
Governance/ Anti-corruption	Corruption related risks are identified and assessed in connection with the company's risk management process. These risks are managed and mitigated by training, communication, due diligence procedures, audits and practical guidelines specifically targeted at anti-corruption and anti-bribery. UPM Code of Conduct training is mandatory for all employees and anti-bribery training to all salaried employees.	100% coverage of participation in UPM Code of Conduct training (continuous)	98% (97%) of active employees completed the training for the UPM Code of Conduct.
Human rights	UPM is committed to respecting human rights based on its Code of Conduct. UPM has a process for assessing human rights at UPM site level, including community relations and local sourcing, as well as for risk assessments and audits for suppliers.	Continuous supplier auditing based on systematic risk assessment practices	95 (121) supplier audits were conducted based on identified risks, including human rights, social and environmental topics. In addition, about 890 (360) contractor reviews with focus on working conditions were carried out.
Responsible sourcing	UPM requires its suppliers, third party intermediaries and joint venture partners to apply the same principles as in the UPM Code of Conduct. These supplier requirements are defined in the UPM Supplier and Third Party Code.	80% of total supplier spend covered by UPM Supplier and Third Party Code (continuous)	89% (88%) of supplier spend covered by UPM Supplier and Third-Party Code.
Responsible leadership	UPM continuously develops leadership capabilities, management teams and working environments. UPM measures work environments, team work and leadership with an annual engagement survey. UPM's global leadership development portfolio develops capabilities to lead oneself, lead people and lead business. Programmes address, e.g., inspiring and purposeful leadership, coaching, conversation and feedback skills, resilience and leading in complexity.	Employee engagement clearly above benchmark by 2030	In the Employee Engagement Survey average score of 70 (70). This is 5 (5) points below the global external benchmark.
Learning and development	UPM has a systematic process for goal setting and development planning for all employees globally to ensure high performance and continuous professional development.	Goal setting discussions are held and development plans created for employees, completion rate 100% by 2030	85% (83%) of employees had completed individual goal settings or annual discussions. 81% (58%) had a development plan documented.
Safe and healthy working environment	UPM has a comprehensive safety management system which promotes a proactive and engaging safety culture. UPM uses means such as safety audits and reporting on safety-related near misses and safety observations.	No fatalities Total recordable injury frequency (TRIF) <2 by 2030, including contractors	0 (3) fatal accidents, 5 (5) serious accidents TRIF was 6.1 (6.4) for UPM workforce and 5.2 (5.9) including contractors.
Diversity and inclusion	UPM wants to develop organisational culture and local workplace to ensure an inclusive and diverse working environment. UPM has committed to, and promotes, diversity and inclusion in its policies. UPM reviews the diversity status of all its businesses and functions regularly. The composition of UPM key management teams and inclusiveness is discussed and development actions planned and implemented.	UPM is among top 10% companies by 2030 on employees' sense of belonging at UPM	In the Employee Engagement Survey, question about belonging average score of 68 (68). This is 12 (12) points below the benchmark of top 10% companies.
Fair rewarding	UPM's rewarding and recognition philosophy is to reward high performance. We aim to ensure fair, equitable and competitive rewarding for all employees. In addition to competitive, robust and performance based rewarding practices, we have yearly review processes ensuring the gender pay equity and employees' pay meeting at least a living wage locally. UPM ensures that employees have sufficient information to understand what their rewarding comprises and how they can influence on its development.	Ensure gender pay equity for all employees by implementing yearly review process to identify and close unexplained pay gaps	Company-wide review done and pay adjustments implemented to close identified statistically significant unexplained gaps related to gender.
Product stewardship	Ecotags help customers make responsible choices and provide stakeholders with important information. Third-party verified environmental certificates and labels tell customers about the environmental performance of our products.	All applicable products eligible for ecolabelling by 2030	89% (87%) of UPM sales were eligible for ecolabelling.
Climate	UPM favours the use of renewable and other carbon-neutral energy sources and strives to continuously improve its energy efficiency across all its operations. Strengthened targets for scope 1 and 2 to be in line with the commitment to Science Based Targets and 1.5° pledge.	Fossil CO ₂ emissions from its own combustion and purchased electricity (Scope 1 and 2) reduced by 65% by 2030 (compared to 2015)	Fossil CO ₂ emissions reduced by 45% compared to 2015 and 17% compared to 2022.
Water	UPM's goal is to minimise the impact of its operations on water resources, safeguard the natural water cycle in forests, and maintain the functioning of aquatic ecosystems.	Wastewater volume reduced by 30% by 2030 (compared to 2008)	7% (13%) reduction in wastewater volume achieved since 2008 for the UPM average product.

TOPIC	MANAGEMENT	KEY PERFORMANCE INDICATOR	2023 RESULTS
Waste	Circular economy means both financial and environmental efficiency. UPM aims to reuse materials and products, reduce the amount of solid waste and increase recycling and recovery in its operations.	No process waste sent to landfills or to incineration without energy recovery by 2030	87% (90%) of all UPM's process waste was recovered and recycled. The total amount of waste to landfills increased by 50% compared to 2022.
Forest	UPM is committed to sustainable forestry and uses third-party verified chains-of-custody to ensure that wood is legally sourced from sustainably managed forests.	All fibre certified by 2030	87% (86%) of all wood used by UPM is sourced from certified forests.
Biodiversity	UPM aims to improve biodiversity with tangible actions for maximising positive impacts and mitigating possible negative impacts on land, in stream waters or in mill operations.	Positive impact on forest biodiversity in Finland (continuous)	Overall positive development as all measured subindicators were positive. For deadwood volume the data will be available in 2024 in connection with national forest inventory.

Material risks and their management is described on pages 133–137 of the Report of Board of Directors and in the Annual Report on pages 32–33. Information on the company's risk management system is available on the corporate website in the governance section and in the Corporate Governance Statement 2023, which is also available as a separate report on the corporate website upm.com/governance. More information about performance related non-financial topics is available in the general section of the Annual Report and on the UPM website upm.com.

EU Taxonomy disclosure

EU Taxonomy is a sustainable finance classification system, which defines criteria for economic activities that are considered environmentally sustainable. It represents an important step towards achieving carbon neutrality by 2050 in line with the EU climate goals. The first EU Disclosures Delegated Act on Climate was adopted in 2021 and it required large companies to report the proportion of their economic activities considered Taxonomy-eligible in relation to Climate change adaptation and Climate change mitigation objectives. In financial reporting year 2022, companies were also required to report the taxonomy alignment of their economic activities based on the sustainability requirements defined in the regulation.

In June 2023, the Commission adopted the Taxonomy Environmental Delegated Act, including a new set of EU taxonomy requirements for economic activities making a substantial contribution to one or more of the non-climate environmental objectives, namely: Sustainable use and protection of water and marine resources, Transition to a circular economy, Pollution prevention and control and Protection and restoration of biodiversity and ecosystems. The Commission also adopted amendments to the Taxonomy Disclosures Delegated Act and to the Taxonomy Climate Delegated Act, covering the environmental objectives of Climate change mitigation and adaptation. For the financial year 2023, the KPIs shall cover all six environmental objectives concerning the Taxonomy eligibility. From 2024 onwards, also alignment shall be reported regarding all six objectives.

Assessment of Taxonomy eligibility and alignment

In 2023, UPM conducted a thorough evaluation of the eligibility of activities with the new sustainability requirements defined in the adopted regulation. The assessments were carried out with the support of several UPM functions and businesses coordinated by UPM's finance and responsibility teams. EU NACE Classification (Statistical Classification of Economic Activities in the European Community) was used as a reference in activity identification. Based on the assessment, UPM identified a potential new activity 1.2. Manufacture of medicinal products for the objective Pollution prevention and control within its Biomedicals business developing and supplying wood-based biomedical products. However, as the reportable amounts for the activity are currently minor and have no impact on the KPIs, UPM considered to report it as non-eligible.

UPM also completed an annual review of all taxonomy-aligned activities recognized contributing to climate objectives. All turnover-generating activities aim at a substantial contribution to climate change mitigation (CCM) and they meet specific technical screening criteria and the criteria for 'do no significant harm' (DNSH) stated for each activity within the relevant Appendix to the delegated act. For all activities contributing to climate change mitigation, a physical climate risk assessment is needed pursuant to Appendix A to the Climate Delegated Act. Technical screening and 'do no significant harm' criteria were reviewed together with the responsibility experts from related UPM's businesses. Audit requirement related to the activities 1.1 Afforestation and 1.3 Forest management is interpreted to be fulfilled based on the FSC, PEFC and (or) SFI audits due to lack of service providers in the market fulfilling Taxonomy specific certifier requirements on Forest management. Data for the separate Climate benefit analysis for the related activities is provided by Natural Resources Institute Finland. UPM's Taxonomy aligned economic activities are the following:

1.1 "Afforestation" relates to transformation of land use from non-forest to forest through planting, deliberate seeding or natural regeneration and consists of UPM's afforestation operations in Uruguay.

1.3 "Forest management" relates to economic activity that influences the ecological, economic or social functions of the forest and mainly consists of UPM's forest management and regeneration activities in Finland, Uruguay and USA.

3.6 "Manufacture of other low carbon technologies" relates to technologies and products dedicated to the reduction of GHG emissions and includes construction of UPM's new biochemicals biorefinery in Leuna, Germany and intangible rights related to UPM Biochemicals acquisition of SunCoal Industries GmbH.

4.13 "Manufacture of biogas and biofuels for use in transport and of bioliquids" relates to manufacture of biofuels from forest biomass and consists of UPM's biorefinery operations in Lappeenranta, Finland.

4.5 "Electricity generation from hydropower" relates to operation of electricity generation facilities that produce electricity from hydropower including UPM's own and co-owned hydropower plants.

4.20 "Cogeneration of heat/cool and power from bioenergy" relates to operation of installations used for cogeneration of heat/cool and power exclusively from biomass, biogas or bioliquids and it mainly consists of operation of UPM's own and co-owned biomass-based boilers in Finland and Uruguay.

UPM reports separately information on nuclear and fossil gas related activities according to the Complementary Delegated Act. UPM identifies the activities 4.27 "Construction and safe operation of new nuclear power plants" (Olkiluoto 3) and 4.28 "Electricity generation from nuclear energy in existing installations" (Olkiluoto 1 & 2) through its shareholdings in Pohjolan Voima Oyj (PVO) which has direct shareholdings in Teollisuuden Voima Oyj (TVO), refer [Note 4.3 Energy shareholdings](#). TVO operates three nuclear power plants in Finland after Olkiluoto 3 started its production phase in Q2 2023. Both nuclear activities 4.27 and 4.28 are Taxonomy aligned based on the comprehensive assessment conducted by Teollisuuden Voima Oyj (TVO). For 2023, UPM identified a potential new activity, 4.29. "Electricity generation from fossil gaseous fuels", related to new Nordland CHP plant in Germany. The plant generates electricity mainly for UPM's internal consumption but in case of excess production electricity can be sold externally to grid operator. The reportable amounts for the activity are currently minor and have no impact on the KPIs, hence, UPM considered to report it as non-eligible.

UPM re-evaluated Taxonomy-eligible activities and made the following change to the eligible scope compared to 2022: UPM reclassified its R&D activities previously reported within the activity 9.1 "Close to market research, development, and innovation" to be reported as a part of activities 3.6 "Manufacture of other low carbon technologies" and 4.13 "Manufacture of biogas and biofuels for use in transport and of bioliquids". Reclassification regarding the activities did not have an impact on the alignment interpretation of the items. The change has also been incorporated into comparison figures.

Minimum Safeguards

Requirements for Minimum Safeguards shall ensure that a company not only supports environmental goals, but also adheres to international social standards and guidelines. UPM evaluated the requirements to be fulfilled by UPM's Code of Conduct and related business practices, measures and commitments. UPM's due diligence and remedy processes consider social and employee matters, respect for human rights, anti-corruption and anti-bribery. Information on Principal Adverse Impacts (PAIs), as defined in the EU SFDR, are addressed in UPM's reporting, if relevant. Our practices and assessments in relevant areas are described in more detail in this report in following paragraphs:

- Based on international frameworks and commitments, page 138
- UPM Code of Conduct and other corporate policies, page 138
- Management of non-financial matters, page 139
- Committed to anti-corruption, page 139
- Respect for human rights, pages 72–73
- Taxation, pages 80–81

UPM's Taxonomy alignment 2023 and development compared to previous year

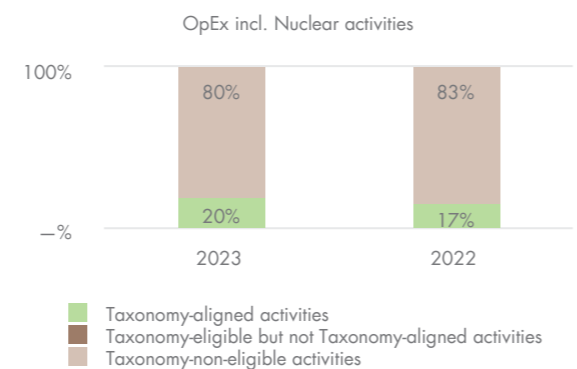
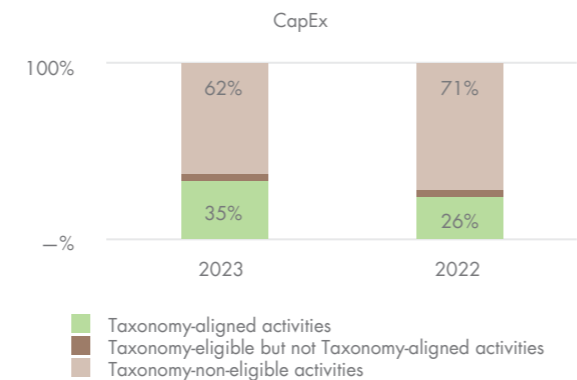
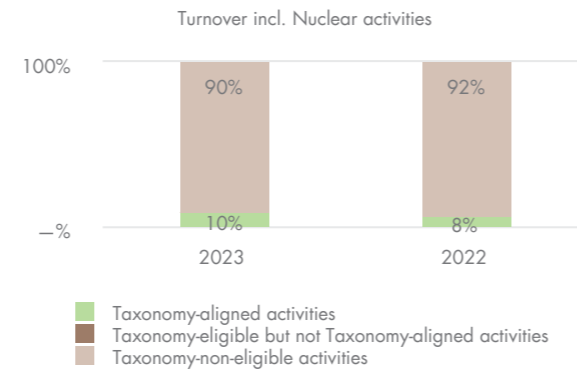
In 2023, UPM's total Taxonomy-aligned turnover including the nuclear activities was EUR 995 million (896 million), 10% (8%) of total sales, Taxonomy-aligned CapEx was EUR 460 million (424 million), 35% (26%) of total CapEx and Taxonomy-aligned OpEx EUR 141 million (109 million), 20% (17%) of total OpEx as defined in Disclosures Delegated Act¹⁾. All the aligned activities in financial year 2022 were also aligned in 2023 based on the executed annual alignment assessment. Taxonomy aligned turnover KPI increased by 2 percentage points mainly due to higher biofuels sales consisting of renewable diesel and nafta (activity 4.13). In addition, electricity sales volumes related to nuclear power increased compared to previous year due to start of the operational phase of Olkiluoto 3. Simultaneously, this was partly offset by decreased electricity prices (activity 4.27). CapEx KPI increased by 9 percentage points and was notable higher than in previous year due to higher proportion of Leuna biochemicals biorefinery investment out of Total Capex as well as additions to intangible rights (IPR) related to UPM Biochemicals' SunCoal Industries GmbH acquisition (activity 3.6). OpEx KPI increased by 3 percentage points mainly due to planned maintenance work at the biofuels biorefinery in Lappeenranta (activity 4.13) and higher OpEx related to Olkiluoto 3 nuclear plant due to started operations (activity 4.27).

The Taxonomy regulation is still under development and does not cover all the sustainable economic activities. The majority of UPM's products and services, such as pulp, paper, timber, plywood and label materials contributing to the turnover, are not included in the EU Taxonomy, thus the high proportion of Taxonomy non-eligible activities.

1) The percentages differ from the Annex II templates presented below as they include nuclear activities which are not presented in Annex II templates. Nuclear activities are presented using the Annex XII templates of the amended Disclosures Delegated Act.

KPIs and accounting policies

The eligibility and aligned-related financial information to be disclosed pursuant to Article 8 of the Taxonomy Regulation is presented in the following pages in tables Turnover of taxonomy-eligible activities, CapEx of taxonomy-eligible activities, OpEx of taxonomy-eligible activities and Nuclear and fossil gas related templates.



Turnover of taxonomy-eligible activities (excluding nuclear and fossil gas related activities)

Fiscal year 2023	2023			Substantial contribution criteria							DNSH criteria ('Does Not Significantly Harm')							Proportion of Taxonomy-aligned (A.1) or -eligible (A.2) turnover, year 2022	Category enabling activity	Category transitional activity
	Code	Turnover	Proportion of turnover, % year 2023	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Minimum safeguards				
		EURm	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	%	E	T		
A. TAXONOMY-ELIGIBLE ACTIVITIES																				
A.1. Environmentally sustainable activities (Taxonomy-aligned)																				
Forest management	CCM 1.3	34	0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	0%	E		
Electricity generation from hydropower	CCM 4.5	136	1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	1%	E		
Manufacture of biogas and biofuels for use in transport	CCM 4.13	414	4%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	3%	E		
Cogeneration of heat/cool and power from bioenergy	CCM 4.20	77	1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	Y	1%	E		
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		660	6%	6%	—%	—%	—%	—%	—%	Y	Y	Y	Y	Y	Y	Y	5%			
Of which Enabling		660	6%	6%	—%	—%	—%	—%	—%	Y	Y	Y	Y	Y	Y	Y	5%	E		
Of which Transitional		—	—	—%						Y	Y	Y	Y	Y	Y	Y	—%		T	
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																				
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL											
Forest management	CCM 1.3	28	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%			
Sea and coastal freight water transport, vessels for port operations and auxiliary activities	CCM 6.10	3	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL								0%			
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		31	0%	0%	—%	—%	—%	—%	—%								0%			
Turnover of Taxonomy-eligible activities (A.1 + A.2)		691	7%	7%	—%	—%	—%	—%	—%								5%			
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																				
Turnover of Taxonomy-non-eligible activities		9,769	93%																	
TOTAL		10,460	100%																	

Turnover of Taxonomy-non-eligible activities (B) includes the eligible and aligned nuclear related activities

CapEx of taxonomy-eligible activities (excluding nuclear and fossil gas related activities)

Fiscal year 2023	2023		Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')						Proportion of Taxonomy-aligned (A.1.) or -eligible (A.2.) CapEx, year 2022	Category enabling activity	Category transitional activity	
	Code(s)	Absolute CapEx	Proportion of CapEx %	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy				Biodiversity
Economic activities		EURm	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																		
A.1. Environmentally sustainable activities (Taxonomy-aligned)																		
Afforestation	CCM 1.1	3	0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	0%	E	
Forest management	CCM 1.3	54	4%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	5%	E	
Manufacture of other low carbon technologies	CCM 3.6	385	29%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	19%	E	
Electricity generation from hydropower	CCM 4.5	3	0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	0%	E	
Manufacture of biogas and biofuels for use in transport	CCM 4.13	14	1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	1%	E	
Cogeneration of heat/cool and power from bioenergy	CCM 4.20	0	0%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	0%	E	
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		460	35%	35%	—	—	—	—	—	Y	Y	Y	Y	Y	Y	26%		
Of which Enabling		460	35%	35%	—	—	—	—	—	Y	Y	Y	Y	Y	Y	26%	E	
Of which Transitional		—	—	—						Y	Y	Y	Y	Y	Y	—		T
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL									
Sea and coastal freight water transport, vessels for port operations and auxiliary activities	CCM 6.1	38	3%	EL	N/EL	N/EL	N/EL	N/EL	N/EL							4%		
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		38	3%	3%	—	—	—	—	—							4%		
CapEx of Taxonomy-eligible activities (A.1 + A.2)		498	38%	38%	—	—	—	—	—							29%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																		
CapEx of Taxonomy-non-eligible activities (B)		830	62%															
TOTAL		1,329	100%															

CapEx of Taxonomy-non-eligible activities (B) includes the eligible and aligned nuclear related activities

OpEx of taxonomy-eligible activities (excluding nuclear and fossil gas related activities)

Fiscal year 2023	2023		Substantial contribution criteria						DNSH criteria ('Does Not Significantly Harm')						Proportion of Taxonomy-aligned (A.1.) or -eligible (A.2.) OpEx, year 2022	Category enabling activity	Category transitional activity	
	Code(s)	Absolute OpEx	Proportion of OpEx %	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy	Biodiversity	Climate change mitigation	Climate change adaptation	Water	Pollution	Circular economy				Biodiversity
Economic activities		EURm	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																		
A.1. Environmentally sustainable activities (Taxonomy-aligned)																		
Forest management	CCM 1.3	24	3%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	3%	E	
Manufacture of other low carbon technologies	CCM 3.6	15	2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	2%	E	
Electricity generation from hydropower	CCM 4.5	6	1%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	1%	E	
Manufacture of biogas and biofuels for use in transport	CCM 4.13	28	4%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	2%	E	
Cogeneration of heat/cool and power from bioenergy	CCM 4.20	11	2%	Y	N/EL	N/EL	N/EL	N/EL	N/EL	Y	Y	Y	Y	Y	Y	3%	E	
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		84	12%	12%	—	—	—	—	—	Y	Y	Y	Y	Y	Y	11%		
Of which Enabling		84	12%	12%	—	—	—	—	—	Y	Y	Y	Y	Y	Y	11%	E	
Of which Transitional		—	—	—						Y	Y	Y	Y	Y	Y	—		T
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																		
				EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL	EL; N/EL									
Sea and coastal freight water transport, vessels for port operations and auxiliary activities	CCM 6.1	0	0%	EL	N/EL	N/EL	N/EL	N/EL	N/EL							0%		
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		0	0%	0%	—	—	—	—	—							0%		
OpEx of Taxonomy-eligible activities (A.1 + A.2)		84	12%	12%	—	—	—	—	—							11%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																		
OpEx of Taxonomy-non-eligible activities (B)		628	88%															
Total (A + B)		712	100%															

OpEx of Taxonomy-non-eligible activities (B) includes the eligible and aligned nuclear related activities

Nuclear and fossil gas related templates

Template 1 Nuclear and fossil gas related activities

Row	Nuclear energy related activities	
1.	The undertaking carries out, funds or has exposures to research, development, demonstration and deployment of innovative electricity generation facilities that produce energy from nuclear processes with minimal waste from the fuel cycle.	NO
2.	The undertaking carries out, funds or has exposures to construction and safe operation of new nuclear installations to produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production, as well as their safety upgrades, using best available technologies.	YES
3.	The undertaking carries out, funds or has exposures to safe operation of existing nuclear installations that produce electricity or process heat, including for the purposes of district heating or industrial processes such as hydrogen production from nuclear energy, as well as their safety upgrades.	YES
Fossil gas related activities		
4.	The undertaking carries out, funds or has exposures to construction or operation of electricity generation facilities that produce electricity using fossil gaseous fuels.	NO
5.	The undertaking carries out, funds or has exposures to construction, refurbishment, and operation of combined heat/cool and power generation facilities using fossil gaseous fuels.	NO
6.	The undertaking carries out, funds or has exposures to construction, refurbishment and operation of heat generation facilities that produce heat/cool using fossil gaseous fuels.	NO

Template 2 Taxonomy-aligned economic activities (denominator)

Row	Economic activities	Amount and proportion					
		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount	%	Amount	%	Amount	%
1.	4.26. Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle						
2.	4.27. Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies	136	1 %	136	1 %	—	— %
3.	4.28. Electricity generation from nuclear energy in existing installations	198	2 %	198	2 %	—	— %
4.	4.29. Electricity generation from fossil gaseous fuels						
5.	4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels						
6.	4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system						
7.	Amount and proportion of other taxonomy-aligned economic activities not referred to in rows above in the denominator of Turnover	660	6 %	660	6 %	—	— %
8.	Total Turnover	10,460	100 %	10,460	100 %	—	— %

Row	Economic activities	Amount and proportion					
		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount	%	Amount	%	Amount	%
1.	4.26. Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle						
2.	4.27. Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies						
3.	4.28. Electricity generation from nuclear energy in existing installations						
4.	4.29. Electricity generation from fossil gaseous fuels						
5.	4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels						
6.	4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system						
7.	Amount and proportion of other taxonomy-aligned economic activities not referred to in rows above in the denominator of CapEx	460	35 %	460	35 %	—	— %
8.	Total CapEx	1,329	100 %	1,329	100 %	—	— %

Row	Economic activities	Amount and proportion					
		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount	%	Amount	%	Amount	%
1.	4.26. Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle						
2.	4.27. Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies	16	2 %	16	2 %	—	— %
3.	4.28. Electricity generation from nuclear energy in existing installations	41	6 %	41	6 %	—	— %
4.	4.29. Electricity generation from fossil gaseous fuels						
5.	4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels						
6.	4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system						
7.	Amount and proportion of other taxonomy-aligned economic activities not referred to in rows above in the denominator of OpEx	84	12 %	84	12 %	—	— %
8.	Total OpEx	712	100 %	712	100 %	—	— %

Template 3 Taxonomy-aligned economic activities (numerator)

Row	Economic activities	Amount and proportion					
		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount	%	Amount	%	Amount	%
1.	4.26. Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle						
2.	4.27. Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies	136	14 %	136	14 %	—	— %
3.	4.28. Electricity generation from nuclear energy in existing installations	198	20 %	198	20 %	—	— %
4.	4.29. Electricity generation from fossil gaseous fuels						
5.	4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels						
6.	4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system						
7.	Amount and proportion of other taxonomy-aligned economic activities not referred above in the numerator of turnover	660	66 %	660	66 %	—	— %
8.	Total amount and proportion of taxonomy-aligned economic activities in the numerator of the Turnover	995	100 %	995	100 %	—	— %

Row	Economic activities	Amount and proportion					
		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount	%	Amount	%	Amount	%
1.	4.26. Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle						
2.	4.27. Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies						
3.	4.28. Electricity generation from nuclear energy in existing installations						
4.	4.29. Electricity generation from fossil gaseous fuels						
5.	4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels						
6.	4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system						
7.	Amount and proportion of other taxonomy-aligned economic activities not referred to in rows above in the numerator of CapEx	460	100 %	460	100 %	—	— %
8.	Total amount and proportion of taxonomy-aligned economic activities in the numerator of the CapEx	460	100 %	460	100 %	—	— %

Row	Economic activities	Amount and proportion					
		CCM + CCA		Climate change mitigation (CCM)		Climate change adaptation (CCA)	
		Amount	%	Amount	%	Amount	%
1.	4.26. Pre-commercial stages of advanced technologies to produce energy from nuclear processes with minimal waste from the fuel cycle						
2.	4.27. Construction and safe operation of new nuclear power plants, for the generation of electricity or heat, including for hydrogen production, using best-available technologies	16	12 %	16	12 %	—	— %
3.	4.28. Electricity generation from nuclear energy in existing installations	41	29 %	41	29 %	—	— %
4.	4.29. Electricity generation from fossil gaseous fuels						
5.	4.30. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels						
6.	4.31. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system						
7.	Amount and proportion of other taxonomy-aligned economic activities not referred to in rows above in the numerator of OpEx	84	59 %	84	59 %	—	— %
8.	Total amount and proportion of taxonomy-aligned economic activities in the numerator of the OpEx	141	100 %	141	100 %	—	— %

Accounting Policy

UPM consolidated financial statements are prepared in accordance with IFRS Accounting Standards as adopted by the EU and IFRIC Interpretations. UPM has calculated the KPIs using the financial information presented in group consolidated financial statements 2023. In determining the eligible and aligned turnover any specific fragments of production inputs, such as use of sustainable raw material or energy, have not been included in the eligible turnover if the main activity is not included in the Taxonomy. However, for activities that are used both internally and, to some extent, to generate external turnover, the CapEx and OpEx is not split in relation of internal and external use, but fully allocated to economic activity that leads to revenue. The definitions of CapEx and OpEx key performance indicators are based on definitions set out in the Disclosures Delegated Act. CapEx and OpEx related to assets or processes that are associated with Taxonomy-aligned economic activities are counted only once. Whenever an individual investment is considered Taxonomy-aligned, this proportion of CapEx is not further allocated to a Taxonomy-aligned economic activity, to avoid double counting. Similarly, OpEx related to purchased outputs that are already considered under OpEx associated with Taxonomy-aligned activities is not further counted. The group has no economic activities contributing to multiple climate or environmental objectives.

Turnover

UPM has calculated turnover, as defined in Disclosures Delegated Act, based on the same accounting principles that apply for revenue in IFRS Accounting Standards, i.e., covering all amounts derived from the sale of products and services in the course of ordinary activities. Total turnover corresponds to total sales as reported in group consolidated financial statements. Refer to Accounting policy in consolidated financial statements **Note 2.2. Sales**. Taxonomy-eligible and -aligned turnover include only revenue from sales of products and services generated from activities that are included in the Taxonomy.

In 2023 and 2022, the numerator of the turnover KPI is defined as the turnover derived from products and services associated with Taxonomy-aligned economic activities:

- 1.3. "Forest management" generates turnover from the sale of wood and wood-based biomass such as logs, pulpwood and forest residues from UPM's own and leased forests to third party customers (other sources of wood excluded from the eligible turnover).
 - 4.5. "Electricity generation from hydropower" generates turnover from the sale of electricity generated by UPM's own or co-owned hydropower plants.
 - 4.13. "Manufacture of biogas and biofuels for use in transport" generates turnover on sale of wood-based renewable diesel and naphtha for transport and petrochemicals.
 - 4.20. "Cogeneration of heat/cool and power from bioenergy" generates turnover from the surplus sale of heat and power generated from biomass in combined heat and power plants that is not consumed in own production. Regarding the power plants, the portion of the fossil fuels has been excluded from the turnover.
- Turnover from sale of forestry services to private forest owners (1.3. "Forest management") and sale of logistic services from leased vessels (6.10 "Sea and coastal freight water transport, vessels for port operations and auxiliary activities") are Taxonomy-eligible but not Taxonomy-aligned.

CapEx

UPM has included in CapEx, as defined in Disclosures Delegated Act, additions to tangible and intangible assets, before any depreciations, impairments, amortisation charges and fair valuations during the financial year, as accounted for in accordance with IAS 16 Property, Plant and Equipment, IAS 38 Intangible assets, IAS 41 Agriculture and IFRS 16 Leases. CapEx corresponds to cash payments to acquire fixed assets in the **Consolidated cash flow statement** adjusted with amounts accrued but not paid at the end of reporting period, acquisition of businesses and subsidiaries (intangible rights) and additions to leased

assets. Refer to line items Capital expenditure, Additions to forest assets and Acquisition of businesses and subsidiaries, net of cash acquired in Consolidated cash flow statement and **Note 5.2. Leases** in UPM consolidated financial statements 2023. Capital expenditure presented in the UPM Annual report within Other financial information differs from Taxonomy-CapEx as it does not include additions to forest assets, acquisition of businesses and subsidiaries and leased assets.

In 2023 and 2022¹⁾, the numerator consists of the following categories of Taxonomy-aligned CapEx:

- 1.1. "Afforestation" CapEx includes purchased and leased land for afforestation.
 - 1.3. "Forest management" CapEx includes capitalised forest regeneration costs.
 - 3.6 "Manufacture of other low carbon technologies" CapEx relates to investment in new-generation biorefinery in Leuna, Germany and intangible rights related to UPM Biochemicals acquisition of SunCoal Industries GmbH, a German-based company that developed a unique technology portfolio to produce performance products such as functional fillers from renewable raw materials. The group is reporting all CapEx related to ongoing investment in new-generation biorefinery as Taxonomy-aligned CapEx.
 - 4.13. "Manufacture of biogas and biofuels for use in transport" CapEx includes refurbishment of Lappeenranta biorefinery.
 - 4.5. "Electricity generation from hydropower" CapEx includes refurbishment of hydropower plants.
 - 4.20. "Cogeneration of heat/cool and power from bioenergy" includes refurbishment of related power plants.
- CapEx related to investments on leased vessels (6.10 "Sea and coastal freight water transport, vessels for port operations and auxiliary activities") in 2023 and 2022 is Taxonomy-eligible but not Taxonomy-aligned.

OpEx

UPM has included in OpEx, as defined in Disclosures Delegated Act, research and development costs as accounted for in accordance IAS 38 Intangible assets, short term lease expenses as accounted for in accordance IFRS 16 Leases, and costs of day-to-day servicing (i.e., repairs and maintenance) of property, plant and equipment as accounted for in accordance IAS 16. Costs of day-to-day servicing of property, plant and equipment include direct salaries of maintenance personnel, maintenance materials and maintenance services outsourced. In addition, as UPM owns a significant amount of forest assets, it considers forest management and support services as day-to-day servicing of assets as defined in EU Disclosures Delegated Act. OpEx is included in consolidated income statement line item Costs and expenses, refer **Note 2.3. Operating expenses and other operating income**.

In 2023 and 2022¹⁾, the numerator consists of the following categories of Taxonomy-aligned OpEx:

- 1.3. "Forest management" OpEx includes forestry infrastructure maintenance, forest fire fighting, protection and environmental activities whereas forest regeneration costs, e.g., planting, growing of seedlings and operation of nurseries, are included in CapEx.
- 3.6 "Manufacture of other low carbon technologies" includes R&D costs related to biochemicals biorefinery.
- 4.5. "Electricity generation from hydropower" OpEx includes maintenance costs of hydropower plants.
- 4.13. "Manufacture of biogas and biofuels for use in transport" OpEx includes maintenance costs of biofuels production facility in Lappeenranta and next generation biofuels refinery R&D costs.

4.20. "Cogeneration of heat/cool and power from bioenergy" includes maintenance of related power plants.

OpEx related to investments on leased vessels (6.10 "Sea and coastal freight water transport, vessels for port operations and auxiliary activities") in 2023 and 2022 is Taxonomy-eligible but not Taxonomy-aligned.

Nuclear and Gas related activities

UPM has reported separately its activities related to Nuclear and Gas as defined in the Complementary Climate Delegated Act (2022/1214).

Taxonomy-eligible turnover from nuclear related activities includes UPM's electricity sales to external customers related to nuclear power plants (Olkiluoto 3 under activity 4.27 and Olkiluoto 1 and 2 under activity 4.28). Taxonomy-eligible OpEx in activities 4.27 and 4.28 includes, as defined in Disclosures Delegated Act, UPM's share of day-to-day servicing costs related to property, plant and equipment in the new and existing nuclear power plants. UPM is not reporting any CapEx related to the nuclear activities as due to the nature of its shareholding ownership in PVO, investments related nuclear are not included in the total UPM's Capital expenditure as presented in the UPM Annual report, refer **Note 4.3 Energy shareholdings**. For 2023, UPM identified a potential new activity 4.29. "Electricity generation from fossil gaseous fuels" related to new Nordland CHP plant in Germany. The reportable amounts for the activity are currently minor and have no impact on the KPIs, hence, UPM considered to report it as non-eligible. All the reported nuclear activities and respective KPIs are both Taxonomy-eligible and Taxonomy-aligned.

¹⁾ UPM reclassified its R&D activities previously reported within activity 9.1. Close to market research, development, and innovation to be reported as part of activities 3.6 "Manufacture of other low carbon technologies" and 4.13 "Manufacture of biogas and biofuels for use in transport and of bioliquids". Reclassification regarding the activities did not have an impact on the alignment interpretation of the items. The change has also been incorporated into comparison figures.

Research and development

Innovating for the future

Innovation and R&D programmes are essential in the development of new products and technologies. Research and development expenses cover the development of new technologies, businesses and processes. In 2023, we spent EUR 538 million (EUR 414 million) on research and development, which accounted for 23.7% (81.5%) of operating cash flow. In addition to direct R&D expenditure of EUR 66 (55) million, the figure includes negative operating cash flow and capital expenditure in developing businesses, transformative business prospects and digitalisation projects.

The patents, trademarks and intellectual property rights protecting our innovations support the journey from innovation to business. We have nearly 3,600 patents and patent applications, and more than 1,700 trademarks globally. Licensing innovations and technologies provides an excellent basis for value creation with customers and technology partners.

Extensive partner network

Our close-knit global partner network includes customers, universities, research organisations, suppliers and start-up companies. Collaboration speeds up the development and launch of new business solutions.

Our network includes the Circular Bio-based Europe Joint Undertaking (CBE JU), the European Chemical Industry Council (Cefic) and the Renewable Carbon Initiative (RCI). We are a member of the 4evergreen alliance, an initiative created by the Confederation of European Paper Industries (Cepi) to raise the overall recycling rate of fibre-based packaging to 90% by 2030. We are also a member of EUROOPEN, the European association that strives towards achieving carbon neutrality in the packaging value chain.

We want to take part in the developments that reduce greenhouse gas emissions. In 2023, we actively participated in Hydrogen Cluster Finland to create new technologies, business opportunities and climate benefits throughout the network.

Our focus in 2023

Innovating climate-positive products

Our biochemicals refinery under construction in Leuna, Germany, will enable us to switch from fossil raw materials to wood-based alternatives in textiles, plastics, PET bottles, packaging and pharma. To accelerate product development, UPM Biochemicals announced several partnerships in 2023.

Co-creating products with customers and technology partners continued. For example, we introduced the world's first fleece jacket containing 30% wood-based polyester as well as fully fibre-based heat-sealable packaging and a bio-attributed jar for a moisturiser.

The step from mainly fossil-based plastic packaging to biomaterials requires R&D in numerous areas. Our work focused on packaging paper and pulp value chains, including pulp side streams such as lignin. We led a collaboration project on finding alternatives for fossil-based binders and coatings.

We are examining new ways to utilise renewable biomaterials for textiles, nonwovens, hygiene products and labels for example. We are also looking into the opportunities provided by green hydrogen and biogenic CO₂.

Expanding R&D infrastructure

UPM's three Biofore Base research centres accelerate the development of bio-based products. The centres focus on research, piloting and analytics, enabling seamless collaboration with customers, value chain

partners and research organisations such as universities. They work closely with UPM's mills, businesses and business-specific research centres in various countries.

In 2023, we continued to strengthen our infrastructure in Germany, Finland, Switzerland and Uruguay. In Germany, we intensified biochemical R&D and piloting in several of our laboratories in connection with the upcoming biochemicals refinery, supported by the acquisition of Suncoal Industries.

In Finland, we expanded our research centre in Lappeenranta with the main focus on developing biomolecular businesses. In Uruguay, we focused on piloting future pulp end-uses in close collaboration with our forestry research centre specialising in eucalyptus plantations. UPM Biomedicals opened a new cell laboratory in Basel, Switzerland.

Implementing sustainable product design concept

Our 2030 responsibility targets and contribution to the UN SDGs are integrated into our R&D activities and product development. We want our products to create value for our stakeholders during the whole product lifecycle.

We carried out screenings in the early stages of product development using a tool we developed to map impacts on the SDGs. Based on the feedback we obtained, we continued to develop the tool by reviewing and adapting the questions included in the tool. The concept was also tested to investigate product reuse with UPM Biocomposites and UPM Raflatac.

Our approach applies lifecycle thinking and lifecycle assessment data, both of which are incorporated in sustainable product design practices. Life Cycle Assessment (LCA) and carbon footprint are key tools in our concept. They provide credible environmental data over the lifecycle of products under development and for products already available on the market. We also continued to conduct biodegradability and recyclability testing.

Developing R&D competences

R&D supports our growth and responsibility targets globally, enhances technology-triggered business opportunities and protects performance in existing businesses. Strong focus is placed on the growth businesses and close collaboration with customers and production.

We continuously develop our competences for the future needs of our businesses. Competence development is essential for the entire organisation, including both technical capabilities and ways of working.

We focused especially on chemical safety and behavioural safety at work, noting both safe and at-risk behaviours. Our R&D and piloting teams have also become more international thanks to successful recruitments and onboarding. In addition to internal competence development, we collaborate with universities and vocational schools to enhance mutual learning.

UPM Biofuels - Green growth with advances biofuels

Our renewable and sustainable biofuels help to mitigate climate change. Advanced biofuels reduce greenhouse gas emissions by more than 80% compared to fossil fuels. In addition to decarbonising road transportation, we help to defossilise various other industries by offering wood-based naphtha. Naphtha is the major raw material for most chemicals and plastics. UPM BioVerno™ naphtha is a drop-in solution for replacing fossil-based naphtha allowing the production of sustainable chemicals and plastics. Our strategy is based on proprietary technology and UPM's integrated feedstocks.

Focus on market fundamentals

In 2023, demand for advanced biofuels was good and markets continued to benefit from a dedicated and compulsory mandate for advanced biofuels based on EU-wide rules. Simultaneously, European biofuels markets faced uncertainties due to economic slowdown and increased imports of biofuels labelled as advanced from China. The longer term effect of Chinese imports remains uncertain.

Input costs remained at a high level. Crude tall oil (CTO) markets continued to tighten due to the increased replacement of fossil fuels and stronger competition. In the first half of the year, the turnaround shut-down impacted production rates at the UPM Lappeenranta Biorefinery. In the second half of the year, production levels were good and production efficiency improved after the shutdown.

Green growth opportunities

UPM aims to become a major European player in the production of advanced biofuels. Markets continue to grow and be driven by climate targets. According to estimates, around 30% of fossil-derived fuels used for transportation in the EU could be replaced with advanced biofuels by 2050.

Further growth in advanced biofuels plays an important role in UPM's Biofore strategy. We are currently conducting the commercial and basic engineering study for a next-generation biofuels refinery in Rotterdam, the Netherlands. The new potential biorefinery would produce high quality renewable fuels, including sustainable aviation fuels, and raw materials for the petrochemical sector, for example in bioplastic applications. In 2023, UPM Biofuels initiated proceedings to qualify its renewable fuel as sustainable aviation fuel.

Our current feedstock for biofuels in the UPM Lappeenranta Biorefinery is crude tall oil, which is a residue from pulp production. In our plans to increase production of advanced biofuels, we are also considering other residue streams and by-products of the forest industry. The planned biorefinery would enhance material efficiency without compromising global food production.

In the future, the path to defossilisation in different transport sectors will increasingly rely on renewable synthetic fuels. Our extensive know-how and experience in biorefinery operations not only gives us a competitive edge but also opens up growth opportunities in the realm of green hydrogen solutions.

Towards 2030

UPM's advanced biofuels belong to the most demanding sustainability category of the Renewable Energy Directive (RED II and forthcoming RED III), which includes residues from agricultural and forestry activities. Our UPM Lappeenranta Biorefinery, with an annual capacity of 130,000 tonnes, is the largest advanced biofuels-only refinery in the EU.

The newly adopted RED III Directive includes an increased target for advanced biofuels in the transport energy mix in Europe by 2030, reflecting a considerable increase on today's production capacity and creating significant opportunities for new investments.

UPM Biochemicals - Ramping up new business

Global brands deepen their sustainability promises to consumers and market CO₂-optimised products while embracing increased supply chain sustainability. UPM Biochemicals will be well positioned to provide renewable chemicals made from sustainable wood with a CO₂-product footprint that is considerably below that of fossil-based chemical products and credibly documented by our third-party-reviewed LCA. Our proposition to help brands defossilise their products has gained further traction in the market and has triggered wide-spread support across our key markets.

The main civil works of the world's first industrial-scale wood-to-chemicals biorefinery in Leuna, Germany were completed in 2023 and commissioning will be gradually concluded during 2024. The relevant German authorities granted the preliminary licence to operate in 2023 – a big milestone towards start-up. The total cost of the biochemicals investment project is estimated at EUR 1,180 million.

The biorefinery will convert solid wood into next-generation biochemicals: bio-monoethylene glycol (BioMEG) and Renewable Functional Fillers (RFF). The biorefinery will also produce bio-monomethylene glycols (BioMPG) and industrial sugars. The total annual capacity of the biorefinery will be 220,000 tonnes.

The feedstock sourcing network has grown further, and we are continuing to close strategic partnerships to secure a stable flow of certified sustainable beechwood. Our active role in shaping the German and European policies on biomass-based materials has triggered government endorsement and is actively enabling commercial opportunities.

Positive market response and first product sales

Markets are responding very positively to our new products as we have further stepped up our sales and marketing. This shows in proactive endorsement through global consumer brands and a series of development partnerships in globally lead markets for sustainable chemicals.

We finalised distribution agreements for our lignin-based Renewable Functional Filler (RFF) and advanced application development to qualify RFF for applications in the automotive, fashion, building and plastics industry.

With the acquisition of German-based SunCoal Industries, we strengthened our technology portfolio for lignin-based rubber solutions and increased our process and product know-how by adding an innovative team of experts.

European Rubber Journal renewed their endorsement of UPM BioMotion™ Renewable Functional Fillers as the most important sustainability project in the elastomers and rubber industry.

For our renewable bio-monoethylene glycols (BioMEG), UPM BioPura™, we extended our development partnership with Dongsung, the leading glycols manufacturer and seller in the Korean market and one of the region's biggest materials suppliers of global footwear brands. We also realised the first product sales with Dongsung and Brenntag, the world's leading chemicals distributor, confirming the value expectations in our BioMEG.

A successful co-operation partnership with the German outdoor and performance wear brand VAUDE was met with significant public and consumer interest. We jointly launched the world's first polyester fleece jacket, containing 30% renewable content with our BioPura™ BioMEG.

The transformative character of our investment was highlighted by UPM Biochemicals winning the prestigious Independent Commodity Intelligence Services (ICIS) Best Process Innovation from a Large Company Award and the International Textile Manufacturers Forum's (ITMF) Sustainability and Innovation Award.

Towards production start and commercial ramp-up

The building site is busy with more than 1,400 contractors finalising the project, with a heavy focus on piping and electrification and automation. The future operations team is trained and starts taking ownership of the processes, actively driving commissioning and start-up preparations.

With all critical materials sourced, contractor relationships tested and proven, and a firm grip on the timeline, we are confident to start up the first units of the Leuna biorefinery. To support a ramp-up from 2025 onwards, we put in place efficient sourcing and supply chain operations

and agreed the relevant partnerships to enable efficient production and distribution of our products.

UPM Biomedicals - Advancing innovations

UPM Biomedicals develops and supplies innovative and sustainable wood-based products for medical and life science applications. The main component of our products is nanocellulose, refined from birch wood, which encourages the trend to reduce animal-based materials in the field.

We actively collaborate with universities, research centres and key industrial partners in the fields of high-throughput drug screening, personalised medicine, cell therapies, 3D bioprinting, tissue engineering and advanced wound care.

In life sciences, our main products are GrowDex®, a range of hydrogels for 3D cell culturing, GrowInk™ a range of bioinks for 3D bioprinting and GrowDase™, an enzyme to release living cells from the gel. The nanocellulose ensures excellent compatibility with even the most demanding cells, such as stem cells and patient-derived cells.

We continued to study the use of GrowDex® in a cell-based model of a liver. Cell-based liver models (mini-livers) are used to test the toxicity of almost every new pharmaceutical candidate. We continue to develop Grow-Dex based mini-livers and other mini-organs in our own cell laboratory in Helsinki.

In 2023, we opened a new sales office and cell laboratory in the Switzerland Innovation Park in Basel. This allows us to be close to our customers and support the use of our products in central Europe.

In 2023, we continued to supply nanocellulose to Cellink and signed a distribution agreement for GrowInk™ bioinks with Brinter.

GrowInk™ is a range of bioinks for 3D bioprinting used in areas such as cancer research, where models of tumours can be printed to test their response to different treatments. The ultimate goal is to print organs or tissues that could, in the future, be transplanted into patients.

In the clinical field, many Finnish healthcare professionals and hospitals in the Nordic countries already use our CE-marked FibDex® wound dressings for skin graft donor sites. These one-time applicable wound dressings were also successfully piloted with good healing results in selected university hospitals in Germany. In 2023, we started the clinical investigation for superficial dermal burns at Uppsala University Hospital in Sweden.

UPM Biocomposites – Best in class

UPM ProFi uses European post-consumer plastic waste and post-industrial label waste to manufacture high-quality composite decking. The label production side streams come from UPM Raflatac and its customers, with the waste being collected and delivered to Germany where the composite decking is manufactured.

The UPM ProFi Piazza product range is made with up to 75% recycled materials and offers best-in-class performance. We are a member of the EU Circular Plastics Alliance, which aims to increase the EU market for recycled plastics to 10 million tonnes by 2025.

UPM Formi creates and manufactures wood-based biocomposites, enabling the carbon footprint of the end product to be reduced by up to 80% compared with similar products made from fossil-based materials. The composite materials are suitable for various end uses, including kitchenware, personal care and acoustic devices. Products comply with food safety standards and other similar quality requirements.

In 2023, the new organ's facade pipes are made of wood-based UPM Formi 3D biocomposite at the Helsinki Music Centre (page 63).

As an example of material efficiency, we introduced new trays made of UPM Formi composite to Finnish ABC service stations. The trays can be recycled into new trays after use (page 100). In 2023, the European Food Safety Authority re-evaluated the safety of wood-based fibres in

contact with food and made its criteria more stringent. UPM takes the safety of its products seriously and is compliant with the updated regulatory requirements.

R&D's role in different businesses

BUSINESS AREA	DESCRIPTION
UPM Fibres	<p>In 2023 our global R&D presence in Asia, Europe and the Americas continued to enable us to work faster and better with our customers and partners to find and implement required solutions. By having a local presence at a global scale we were able to implement fit for purpose solutions. Several developments were made to improve operational reliability, safety and environmental performance at our pulp mills.</p> <p>Our commitment to developing sustainable and high-quality eucalyptus plantations for pulp production remains at the core of our operations in Uruguay. In 2023, it has taken a new dimension with the fully operational Forestry R&D Center in Paysandú and the inauguration of a new tree nursery in Sarandí del Yí, turning our long term R&D into high quality seedlings for new plantations, and supporting the new era in our operations after the start-up of the UPM Paso de los Toros pulp mill.</p> <p>In Uruguay, we have also been able to capitalize on long-term R&D by starting to deliver continuously a dried mix of biosludge and lime sludge to a local cement factory, reducing landfill waste at the UPM Fray Bentos pulp mill and substituting high CO₂ energy sources at the cement factory with a renewable biofuel.</p> <p>After a period of solution development stage for our second state-of-the-art eucalyptus pulp mill that started operating in Uruguay in April, more emphasis was placed on developing and piloting the first stages of our next fibre based and bio-streams growth concepts for our pulp mills in cooperation with research institutes at UPM's pilot plant in Lappeenranta. In doing so, we see clear synergies and advantages in having in-house businesses that focus on replacing fossil materials with renewable solutions. It allows us to make our customers more successful faster by designing and implementing solutions based on our bio-streams in a range of industries and applications.</p> <p>UPM is researching options in the further use of its biogenic CO₂ sidestream. Options researched include creating negative emissions by storing biogenic CO₂ emitted by pulp mills as well as utilisation into, for example, carbon neutral synthetic fuels and chemicals. UPM published a white paper on its views on how to scale up the negative emissions value chain.</p>
UPM Energy	<p>The focus was on improving the cost-competitiveness and environmental performance of hydropower production assets and on developing competencies and business operations related to the optimisation of industrial energy consumption and demand-side flexibility. UPM Energy participated in several research programmes and undertook development work with the aim of improving UPM's power generation and consumption operations in a changing electricity market, as well as developing means to mitigate the impact of hydro power operations on rivers and migratory fish as a part of UPM's Stream water programme.</p>
UPM Raflatac	<p>UPM Raflatac product development in Strategic Business Units and in Global R&D continues to support UPM's sustainable development goals and commitments in self-adhesive label materials. Packaging recyclability, reduction of raw materials and new renewable raw materials are core elements in all UPM Raflatac's R&D projects supporting UPM's beyond fossils strategy. Continuous improvements in quality and cost efficiency remain essential to product and process development. The AMC acquisition brings new technologies and products which will further strengthen UPM Raflatac's technical competencies in self-adhesive materials. This will enable new opportunities for future product development.</p>
UPM Specialty Papers	<p>R&D and product development initiatives aim to enable high performance and efficiency in the value chain and to develop fibre-based alternatives for non-renewable materials. These initiatives also support growth targets by driving the innovation of products for new applications. We continue to focus on co-creating sustainable paper-based packaging solutions for various end-uses; together with the packaging value network; we currently have several ongoing co-creation initiatives supported by our excellent R&D infrastructure including Northern European and Asian R&D centres.</p> <p>UPM Specialty Papers continues to develop release liner base papers to further improve efficiency and minimise the environmental impact of the value chain. For example, our downgauging initiatives support our customers' material efficiency targets. We are also driving an industry-wide design-for-recycling approach across the label and tape value chains.</p>
UPM Communication Papers	<p>In the area of energy, we have electrified our heat and steam generation and invested considerably in power-to-heat boilers at our paper locations in order to enable reliable heat supply in case of gas or other fuel supply disruptions, improve our cost competitiveness and reduced CO₂ emissions in an increasingly volatile electricity system. Furthermore, the focus was on technological innovations that help minimise energy needs at the production sites. Paper mills also developed further intelligent operations to enable increasing demand-side management towards the electricity markets and networks to support system stability and decrease emissions at peak times.</p> <p>The Research & Development Centre in Lappeenranta, Finland and the Central European Support Team in Augsburg, Germany continued to focus on investigating fibre concepts for various paper grades. The teams have been further optimising recovered paper (RCP) supply by various quality studies. UPM Communication Papers continued to participate in projects and association activities to keep RCP recyclable, e. g. in the cycle4green initiative. Furthermore, our R&D teams provided support to optimise the deinking process with the aim of minimising material losses and reducing energy and the water consumption.</p> <p>Product portfolio development focused on the needs of key customer groups.</p> <p>In terms of operations efficiency, our R&D efforts concentrated on improving the efficiency of several mills for pinpointed efficiency supporting actions as well as safety-improving areas.</p> <p>Contributions from the R&D teams contributed to meeting the 2030 targets in the areas of energy, water consumption, effluent treatment and resource efficiency.</p>
UPM Plywood	<p>UPM Plywood product management and development provides competitive products within selected end-use areas in collaboration with our customers, superior technical expertise and support for customers, and support for the commercialisation of newly developed products and applications. An example would be further expanding the use of lignin-based WISA BioBond gluing solution to new product lines.</p>
Other operations UPM Biofuels	<p>Collaboration for the development of new applications for renewable plastics based on UPM BioVerno naphtha continued. Piloting, research and process development continued to take place at the UPM Biorefinery Development Centre (BrDC) and with external partners.</p> <p>UPM also studied and tested the use of several new innovative feedstocks that meet sustainability criteria, such as wood residues and feedstocks from carbon farming for our possible growth plans.</p>

Information on shares

Shares

UPM has one class of shares. Each share entitles the holder to one vote at the General Meeting of UPM.

On 31 December 2023, the total number of UPM shares was 533,735,699. Through the issuance authorisation described below, the number of shares may increase to a maximum of 558,735,699. On 31 December 2023, UPM held 411,653 treasury shares, representing approximately 0.08% of the total number of UPM shares and voting rights. There are no specific terms related to the shares.

In 2023, UPM shares worth a total of EUR 8,752 million (9,680 million) were traded on the Nasdaq Helsinki stock exchange. This is estimated to represent approximately 70% of the total trading volume in UPM shares. The highest listing was EUR 35.99 in January and the lowest was EUR 26.62 in June.

Authorisations held by the Board of Directors

The Annual General Meeting held on 12 April 2023 authorised the Board of Directors to decide on the repurchase of a maximum of 50,000,000 of the Company's own shares. The authorisation will be valid for 18 months from the date of the AGM resolution.

The Annual General Meeting held on 12 April 2023 authorised the Board of Directors to decide on the issuance of new shares, the transfer of treasury shares and the issuance of special rights entitling to shares in proportion to the shareholders' existing holdings in the Company, or in a directed share issue, deviating from the shareholder's pre-emptive subscription right. The Board of Directors may also decide on a share issue without payment to the Company itself. The aggregate maximum number of new shares that may be issued and treasury shares that may be transferred is 25,000,000, including the number of shares that can be received on the basis of special rights. The authorisation will be valid for 18 months from the date of the AGM resolution.

Aside from the above, the Board of Directors has no current authorisation to issue shares, convertible bonds or share options.

Changes in number of shares

	2023	2022	2021	2020	2019
Number of shares 1 January	533,735,699	533,735,699	533,735,699	533,735,699	533,735,699
Number of shares at 31 December	533,735,699	533,735,699	533,735,699	533,735,699	533,735,699

Major shareholders at 31 December 2023

	NUMBER OF SHARES	HOLDING %
Ilmarinen Mutual Pension Insurance Company	8,958,528	1.68
Varma Mutual Pension Insurance Company	8,599,564	1.61
ELO Mutual Pension Insurance Company	4,892,000	0.92
The State Pension Fund	2,900,000	0.54
The Society of Swedish Literature in Finland	2,621,521	0.49
Holding Manutas Oy	2,500,000	0.47
Security Trading Oy	1,860,000	0.35
Kymin Osakeyhtiön 100-vuotissäätiö	1,696,360	0.32
Nordea Pro Finland Fund	1,478,991	0.28
Samfundet Folkhälsan i Svenska Finland	1,454,890	0.27
Nominee registered	360,763,557	67.59
Others	136,010,288	25.48
Total	533,735,699	100.00

Shareholders by category at 31 December, %

	2023	2022	2021	2020	2019
Companies	2.6	2.6	2.9	2.7	2.3
Financial institutions and insurance companies	3.8	3.6	3.7	3.8	3.0
Public bodies	5.3	5.3	5.8	6.0	5.7
Non-profit organisations	4.4	4.5	4.6	4.7	4.6
Households	16.4	16.0	15.8	15.6	15.2
Non-Finnish nationals	67.6	68.1	67.2	67.1	69.1
Total	100.0	100.0	100.0	100.0	100.0

Share distribution at 31 December 2023

SIZE OF SHAREHOLDINGS	NUMBER OF SHARE-HOLDERS	% OF SHARE-HOLDERS	NUMBER OF SHARES, MILLION	% OF SHARES
1 – 100	61,123	43.43	2.6	0.5
101 – 1,000	61,382	43.62	23.1	4.3
1,001 – 10,000	16,854	11.98	44.7	8.4
10,001 – 100,000	1,248	0.89	30.0	5.6
100,001 –	121	0.09	74.8	14.0
Total	140,728	100.00	175.2	32.8
Nominee-registered			358.5	67.2
Not registered as book entry units			–	0.0
Total			533.7	100.0

Under the provisions of the Securities Markets Act, changes in holdings must be disclosed when the holding reaches, exceeds or falls below 5, 10, 15, 20, 25, 30, 50 or 66.7 (2/3) per cent of the voting rights or the number of shares of the company. The stock exchange releases on notifications of changes in holdings pursuant to Chapter 9, Section 5 of the Securities Market Act are available in UPM website upm.com/investors.

Adjusted share related indicators

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Earnings per share (EPS), EUR	0.73	2.86	2.41	1.05	1.99	2.80	1.82	1.65	1.72	0.96
Comparable EPS, EUR	1.40	3.09	2.22	1.37	2.07	2.24	1.88	1.65	1.38	1.20
Equity per share, EUR	20.93	23.44	20.34	17.53	18.87	18.36	16.24	15.43	14.89	14.02
Dividend per share, EUR ¹⁾	1.50	1.50	1.30	1.30	1.30	1.30	1.15	0.95	0.75	0.70
Dividend to earnings ratio, %	206.2	52.4	53.9	123.7	65.4	46.4	63.0	57.6	43.6	72.9
Dividend to operating cash flow, %	35	158	55	69	38	52	42	30	34	30
Dividend to comparable EPS, %	107	49	59	95	63	58	61	58	54	58
Effective dividend yield, %	4.4	4.3	3.9	4.3	4.2	5.9	4.4	4.1	4.4	5.1
P/E ratio	46.8	12.2	13.9	29.0	15.5	7.9	14.2	14.1	10.0	14.2
Operating cash flow per share, EUR	4.25	0.95	2.34	1.89	3.46	2.49	2.74	3.16	2.22	2.33
Dividend distribution, EURm ¹⁾	800	800	693	693	693	693	613	507	400	373
Share price at 31 Dec., EUR	34.06	34.93	33.46	30.47	30.91	22.15	25.91	23.34	17.23	13.62
Lowest quotation, EUR	26.62	24.85	29.11	20.31	21.10	21.69	20.82	13.71	13.19	10.07
Highest quotation, EUR	35.99	37.14	35.37	31.50	31.49	34.70	26.69	23.41	19.26	13.99
Average quotation for the period, EUR	31.33	32.50	32.15	26.09	25.73	28.86	23.89	17.51	16.37	12.26
Market capitalisation, EURm	18,165	18,629	17,845	16,250	16,485	11,813	13,818	12,452	9,192	7,266
Shares traded, EURm ²⁾	8,752	9,680	8,435	9,921	9,695	9,980	8,460	6,749	7,469	6,233
Shares traded (1,000)	279,371	297,879	262,377	380,237	376,801	345,822	354,053	385,355	456,168	508,318
Shares traded, % of all shares	52.4	55.9	49.2	71.3	70.7	64.8	66.4	72.2	85.5	95.6
Number of shares, average (1,000)	533,324	533,324	533,324	533,324	533,324	533,324	533,415	533,505	533,505	531,574
Number of shares at the end of period (1,000)	533,736	533,736	533,736	533,736	533,736	533,736	533,736	533,736	533,736	533,736
of which treasury shares (1,000)	412	412	412	412	412	412	412	231	231	231

¹⁾ 2023 proposal

²⁾ Trading on the Nasdaq Helsinki Main Market. Treasury shares bought by the company are included in shares traded.

The definitions of adjusted share related indicators are described below

SHARE RELATED INDICATORS	DEFINITION
Earnings per share (EPS), EUR	Profit for the period attributable to owners of the parent company divided by adjusted average number of shares during the period excluding treasury shares.
Comparable EPS, EUR	Earnings per share calculated in accordance with IFRS excluding items affecting comparability and their tax impact.
Equity per share, EUR	Equity attributable to the owners of the parent company in relation to the adjusted number of shares at the end of period.
Dividend per share, EUR	Dividend distribution divided by adjusted number of shares at the end of period.
Dividend to earnings ratio, %	Dividend per share as a percentage of earnings per share.
Dividend to operating cash flow, %	Dividend per share as a percentage of operating cash flow per share.
Dividend to comparable EPS, %	Dividend per share as a percentage of comparable earnings per share.
Effective dividend yield, %	Adjusted dividend per share as a percentage of adjusted share price at 31.12.
P/E ratio	Adjusted share price in relation to the earnings per share.
Operating cash flow per share, EUR	Operating cash flow divided by adjusted average number of shares during the period excluding treasury shares.
Market capitalisation, EURm	Total number of shares (excluding those held as treasury shares) multiplied by the share price at the end of period.
Adjusted share price at the end of period	Share price at the end of period in relation to share issue coefficient.
Adjusted average share price	Total value of shares traded in relation to adjusted number of shares traded during the period.

Board of Directors' proposal for the distribution of profit

The Board of Directors proposes to the Annual General Meeting of UPM-Kymmene Corporation to be held on 4 April 2024 that an aggregate dividend of EUR 1.50 per share be paid based on the balance sheet to be adopted for the financial year ending 31 December 2023, and that the remaining portion of the distributable funds be retained in the Company's unrestricted shareholders' equity. The Board proposes that the dividend be paid in two instalments.

The first dividend instalment, EUR 0.75 per share, is proposed to be paid to shareholders registered in the Company's register of shareholders maintained by Euroclear Finland Oy on the record date for the first dividend instalment 8 April 2024. The Board proposes that the payment date for the first dividend instalment would be on 16 April 2024.

The second dividend instalment, EUR 0.75 per share, is proposed to be paid to shareholders registered in the Company's register of shareholders maintained by Euroclear Finland Oy on the record date for the second dividend instalment 31 October 2024. The Board proposes that the payment date for the second dividend instalment would be on 7 November 2024.

If the payment of the dividend is prevented due to applicable law, regulation or unexpected circumstances, the Board will resolve, as soon as practically possible, on a new record date and payment date.

On the date of the dividend proposal, 1 February 2024, the registered number of the Company's shares is 533,735,699. The aforementioned number of shares includes 411,653 treasury shares which are not entitled to dividend. As a result, the proposed dividend would total EUR 800.0 million.

On 31 December 2023, the distributable funds of the parent company were EUR 3,289,796,583.55. The profit of the parent company for the period was EUR 1,674,687,361.44. No material changes have taken place in respect of the Company's financial position after the balance sheet date. In the opinion of the Board Of Directors, the proposed distribution of profits does not risk the solvency of the Company.

Signatures of the annual accounts and the report of the Board of Directors for the year 2023

Helsinki, 1 February 2024

Henrik Ehrnrooth
Chair

Kim Wahl

Pia Aaltonen-Forsell

Emma FitzGerald

Jari Gustafsson

Piia-Noora Kauppi

Topi Manner

Marjan Oudeman

Martin à Porta

Massimo Reynaudo
President and CEO

Financial Statements 2023

Consolidated income statement and statement of comprehensive income	164
Consolidated balance sheet	165
Consolidated statement of changes in equity	166
Consolidated cash flow statement	167
Notes to the consolidated financial statements	169

1. Basis for reporting	169	5. Capital structure	197
1.1 Corporate information	169	5.1 Capital management	197
1.2 Basis of preparation	169	5.2 Net debt	200
1.3 Consolidation principles	170	5.3 Financial assets and liabilities by category	205
1.4 Foreign currency translation	170	5.4 Financial income and expenses	208
1.5 Changes in accounting policies	170	5.5 Share capital and reserves	208
2. Business performance	172	6. Risk management	210
2.1 Business areas	172	6.1 Financial risk management	210
2.2 Sales	177	6.2 Derivatives and hedge accounting	212
2.3 Operating expenses and other operating income	178		
2.4 Earnings per share and dividend	180	7. Income tax	216
		7.1 Tax on profit for the year	216
3. Employee rewards	181	7.2 Deferred tax	217
3.1 Employee costs	181		
3.2 Key management personnel	181	8. Group structure	218
3.3 Share-based payments	182	8.1 Business acquisitions and disposals	218
3.4 Retirement benefit obligations	184	8.2 Principal subsidiaries and joint operations	219
		8.3 Related party transactions	221
4. Capital employed	187	8.4 Assets held for sale	221
4.1 Property, plant and equipment	188		
4.2 Forest assets	190	9. Unrecognised items	222
4.3 Energy shareholdings	190	9.1 Commitments and contingencies	222
4.4 Goodwill and other intangible assets	192	9.2 Litigation	222
4.5 Provisions	194	9.3 Events after balance sheet date	222
4.6 Working capital	195		
		10. Other notes	222
		10.1 Forthcoming new standards, amendments and accounting policy changes	222

Parent company accounts	223
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Consolidated financial statements

Consolidated income statement

EURm	NOTE	2023	2022
Sales	2.1, 2.2	10,460	11,720
Other operating income	2.3	228	231
Costs and expenses	2.3	-9,316	-9,470
Change in fair value of forest assets and wood harvested	4.2	-103	12
Share of results of associated companies and joint ventures		-1	4
Depreciation, amortisation and impairment charges	2.3, 4.1, 4.4	-660	-522
Operating profit		608	1,974
Exchange rate and fair value gains and losses	5.4	-74	25
Interest and other finance costs, net	5.4	-70	-55
Profit before tax		464	1,944
Income taxes	7.1	-71	-388
Profit for the period		394	1,556
Attributable to:			
Owners of the parent company		388	1,526
Non-controlling interests	8.1	6	31
		394	1,556
Earnings per share for profit attributable to owners of the parent company			
Basic earnings per share, EUR	2.4	0.73	2.86
Diluted earnings per share, EUR	2.4	0.73	2.86

Consolidated statement of comprehensive income

EURm	NOTE	2023	2022
Profit for the period		394	1,556
Other comprehensive income for the period, net of tax			
Items that will not be reclassified to income statement:			
Actuarial gains and losses on defined benefit plans		-10	192
Changes in fair value of energy shareholdings		-1,351	1,051
Items that may be reclassified subsequently to income statement:			
Translation differences		-120	150
Net investment hedge		6	-15
Cash flow hedges		539	-531
Other comprehensive income for the period, net of tax	7.2	-936	847
Total comprehensive income for the period		-542	2,403
Attributable to:			
Owners of the parent company		-536	2,358
Non-controlling interests		-7	45
		-542	2,403

The notes are integral part of these consolidated financial statements.

Consolidated balance sheet

EURm	NOTE	2023	2022
ASSETS			
Goodwill	4.4	283	282
Other intangible assets	4.4	715	553
Property, plant and equipment	4.1	7,053	6,733
Leased assets	5.2	683	713
Forest assets	4.2	2,355	2,442
Energy shareholdings	4.3	2,283	3,652
Other non-current financial assets	5.3	60	70
Deferred tax assets	7.2	431	485
Net retirement benefit assets	3.4	1	1
Investments in associates and joint ventures		23	27
Other non-current assets		26	20
Non-current assets		13,913	14,977
Inventories	4.6	1,948	2,289
Trade and other receivables	4.6, 5.3	1,782	2,696
Other current financial assets	5.3	64	118
Income tax receivables		27	61
Cash and cash equivalents	5.1, 5.3	632	2,067
Current assets		4,454	7,230
Assets classified as held for sale	8.4	106	—
Assets		18,473	22,207
EURm	NOTE	2023	2022
EQUITY AND LIABILITIES			
Share capital	5.5	890	890
Treasury shares		-2	-2
Translation reserve		347	449
Other reserves	5.5	1,655	2,460
Reserve for invested non-restricted equity	5.5	1,273	1,273
Retained earnings		6,998	7,433
Equity attributable to owners of the parent company		11,161	12,502
Non-controlling interests	8.1	370	376
Equity		11,531	12,879
Deferred tax liabilities	7.2	616	636
Net retirement benefit liabilities	3.4	502	527
Provisions	4.5	170	64
Non-current debt	5.2, 5.3	3,056	4,476
Other non-current financial liabilities	5.3	157	103
Non-current liabilities		4,501	5,807
Current debt	5.2, 5.3	327	558
Trade and other payables	4.6, 5.3	1,883	2,720
Provisions	4.5	96	70
Other current financial liabilities	5.3	51	102
Income tax payables		28	73
Current liabilities		2,385	3,522
Liabilities related to assets classified as held for sale	8.4	56	—
Liabilities		6,942	9,329
Equity and liabilities		18,473	22,207

The notes are integral part of these consolidated financial statements.

Consolidated statement of changes in equity

EURm	SHARE CAPITAL	TREASURY SHARES	TRANSLATION RESERVE	OTHER RESERVES	RESERVE FOR INVESTED NON-RESTRICTED EQUITY	RETAINED EARNINGS	EQUITY ATTRIBUTABLE TO OWNERS OF THE PARENT COMPANY	NON-CONTROLLING INTERESTS	TOTAL EQUITY
Value at 1 January 2023	890	-2	449	2,460	1,273	7,433	12,502	376	12,879
Profit for the period	—	—	—	—	—	388	388	6	394
Translation differences	—	—	-108	—	—	—	-108	-13	-120
Cash flow hedges - reclassified to income statement, net of tax	—	—	—	94	—	—	94	—	94
Cash flow hedges - reclassified to PPE, net of tax	—	—	—	1	—	—	1	—	1
Cash flow hedges - change in fair value, net of tax	—	—	—	444	—	—	444	—	444
Net investment hedge, net of tax	—	—	6	—	—	—	6	—	6
Energy shareholdings - changes in fair value, net of tax	—	—	—	-1,350	—	-1	-1,351	—	-1,351
Actuarial gains and losses on defined benefit plans, net of tax	—	—	—	—	—	-10	-10	—	-10
Total comprehensive income for the period	—	—	-102	-811	—	377	-536	-7	-542
Share-based payments, net of tax	—	—	—	6	—	-11	-5	—	-5
Dividend distribution	—	—	—	—	—	-800	-800	-35	-835
Other items	—	—	—	—	—	—	—	—	—
Contributions by non-controlling interests	—	—	—	—	—	—	—	35	35
Total transactions with owners for the period	—	—	—	6	—	-811	-805	—	-805
Total equity at 31 December 2023	890	-2	347	1,655	1,273	6,998	11,161	370	11,531
Value at 1 January 2022	890	-2	329	1,938	1,273	6,419	10,846	261	11,106
Profit for the period	—	—	—	—	—	1,526	1,526	31	1,556
Translation differences	—	—	136	—	—	—	136	14	150
Cash flow hedges - reclassified to income statement, net of tax	—	—	—	376	—	—	376	—	376
Cash flow hedges - reclassified to PPE, net of tax	—	—	—	25	—	—	25	2	27
Cash flow hedges - change in fair value, net of tax	—	—	—	-932	—	—	-932	-2	-934
Net investment hedge, net of tax	—	—	-15	—	—	—	-15	—	-15
Energy shareholdings - changes in fair value, net of tax	—	—	—	1,050	—	1	1,051	—	1,051
Actuarial gains and losses on defined benefit plans, net of tax	—	—	—	—	—	192	192	—	192
Total comprehensive income for the period	—	—	121	519	—	1,718	2,358	45	2,403
Share-based payments, net of tax	—	—	—	3	—	-10	-7	—	-7
Dividend distribution	—	—	—	—	—	-693	-693	-27	-721
Other items	—	—	—	—	—	-1	-1	—	-1
Contributions by non-controlling interests	—	—	—	—	—	—	—	98	98
Total transactions with owners for the period	—	—	—	3	—	-704	-701	70	-631
Total equity at 31 December 2022	890	-2	449	2,460	1,273	7,433	12,502	376	12,879

» Refer Note 5.5 Share capital and reserves, for further information.

Consolidated cash flow statement

EURm	2023	2022
Cash flows from operating activities		
Profit for the period	394	1,556
Adjustments ¹⁾	1,760	35
Interest received	37	8
Interest paid	-116	-43
Dividends received	3	3
Other financial items, net	-44	-52
Income taxes paid ⁴⁾	-181	-313
Change in working capital ³⁾	417	-687
Operating cash flow	2,269	508
Cash flows from investing activities		
Capital expenditure	-1,026	-1,398
Additions to forest assets	-54	-79
Acquisition of businesses and subsidiaries, net of cash acquired	-20	-138
Proceeds from sale of property, plant and equipment and intangible assets, net of tax ⁴⁾	7	41
Proceeds from sale of forest assets, net of tax ⁴⁾	10	7
Proceeds from disposal of businesses and subsidiaries and advances received	1	15
Proceeds from disposal of shares in associates and joint ventures	1	11
Proceeds from disposal of energy shareholdings	0	2
Net cash flows from net investment hedges	10	-47
Change in other non-current assets	-5	3
Investing cash flow	-1,076	-1,585
Cash flows from financing activities		
Proceeds from non-current debt	100	4,402
Payments of non-current debt	-1,506	-2,550
Lease repayments	-99	-91
Change in current liabilities	-260	439
Net cash flows from derivatives	6	20
Dividends paid to owners of the parent company	-799	-693
Dividends paid to non-controlling interests	-36	-27
Contributions paid by non-controlling interests	35	97
Change in investment funds	0	99
Other financing cash flow	-14	-9
Financing cash flow	-2,573	1,687
Change in cash and cash equivalents	-1,379	610
Cash and cash equivalents at the beginning of the period	2,067	1,460
Exchange rate effect on cash and cash equivalents	-16	-3
Change in cash and cash equivalents	-1,379	610
Cash and cash equivalents classified as held for sale (Note 8.4)	-39	0
Cash and cash equivalents at the end of the period	632	2,067

¹⁾ Adjustments

EURm	2023	2022
Change in fair value of forest assets and wood harvested	103	-12
Share of results of associated companies and joint ventures	1	-4
Depreciation, amortisation and impairment charges	660	522
Capital gains and losses on sale of non-current assets	-2	-35
Financial income and expenses	144	30
Income taxes	71	388
Utilised provisions	-42	-52
Non-cash changes in provisions	179	7
Other adjustments ²⁾	646	-808
Total	1,760	35

²⁾ 2023 and 2022 other adjustments include energy hedging derivative market value payments.

³⁾ Change in working capital

EURm	2023	2022
Inventories	293	-665
Receivables included in working capital	854	-400
Liabilities included in working capital	-731	378
Total	417	-687

⁴⁾ Total income taxes paid in 2023 amounted to EUR 181 million (315 million). Income taxes paid related to investing activities are presented in investing cash flow.

Notes to the consolidated financial statements

The notes to the consolidated financial statements are grouped into sections based on their nature. The notes contain the relevant financial information as well as a description of accounting policy and key estimates and judgements applied for the topics of the individual notes. All amounts are shown in millions of euros unless otherwise stated.



Items marked with this symbol describe the accounting principle applied by UPM to the specific financial statement area.



Items marked with this symbol indicate that the accounting area involves estimates and judgement which are described separately.



Risks related disclosures, whether they are financial, actuarial, credit or counterparty in nature, can be found in sections marked with this symbol.

1. Basis for reporting

1.1 Corporate information

UPM-Kymmene Corporation ("the parent company" or "the company") together with its consolidated subsidiaries ("UPM" or "the group") is a global forest-based bioindustry group. UPM's large product range covers pulp, graphic and specialty papers, selfadhesive labels, wood-based renewable diesel, electricity as well as plywood and timber products.

UPM-Kymmene Corporation is a Finnish limited liability company, domiciled in Helsinki in the Republic of Finland. The address of the company's registered office is Alvar Aallon katu 1, 00100 Helsinki, where a copy of the consolidated financial statements can be obtained.

The parent company's shares are publicly traded on the Nasdaq Helsinki Main Market.

These group consolidated financial statements were authorised for issue by the Board of Directors on 1 February 2024. According to the Finnish Companies Act, the General Meeting of Shareholders is entitled to decide on the adoption of the company's financial statements.

1.2 Basis of preparation

UPM's consolidated financial statements are prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board and as adopted by the EU (IFRS as issued by the IASB and as adopted by the European Union) and IFRIC Interpretations.

The consolidated financial statements have been prepared under the historical cost convention, except for forest assets, energy shareholdings and certain other financial assets and financial liabilities, defined benefit plan assets and obligations and share-based payment arrangements which are measured at fair value.

The consolidated financial statements are presented in millions of euros, which is the functional and presentation currency of the parent company. Items included in the financial statements of each group subsidiary are measured using the currency of the primary economic environment in which the subsidiary operates ("the functional currency").

The amounts within parentheses refer to the preceding year, 2022. Figures presented in these financial statements are rounded and therefore the sum of individual figures might deviate from the presented total figure.

In accordance with the European Single Electronic Format (ESEF) reporting requirements, UPM has published the Board of Directors' report and the financial statements as an XHTML file as its official financial statements. In line with the ESEF requirements, the primary

statements of the consolidated financial statements and notes have been labelled with XBRL tags. XBRL tags within the ESEF financial statements are not audited. The group has also voluntarily published its financial statements in a PDF format. The consolidated financial statements have been prepared in two languages, of which the Finnish version is official and the English translation is non-official.



Accounting policies

The accounting policies applied to the consolidated financial statements as a whole are described in this section, while the remaining accounting policies are described in the notes to which they relate as UPM aims to provide enhanced understanding of each financial statement area. Further, to provide a better understanding, the accounting choices made within the framework of the prevailing IFRS Accounting Standards are described together with the policy.



Key estimates and judgements

In the process of applying the group's accounting policies, management has made a number of judgements and applied estimates of future events that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Although these estimates are based on management's best knowledge, actual results and timing may ultimately differ from previously made estimates.

Key estimates and judgement which are material to the reported results and financial position are presented in the following notes.

KEY ESTIMATES AND JUDGEMENTS	NOTE
Valuation of forest assets	4.2 Forest assets
Fair value determination of energy shareholdings	4.3 Energy shareholdings
Impairment of property, plant and equipment	4.1 Property, plant and equipment
Impairment of goodwill and other intangible assets	4.4 Goodwill and other intangible assets
Pension and other post-employment benefits	3.4 Retirement benefit obligations
Income taxes	7. Income tax
Environmental provisions	4.5 Provisions
Legal contingencies	9.2 Litigation



Financial risks

UPM is exposed to a variety of financial risks as a result of its business activities including currency risk, interest rate risk, commodity price risk, credit risk, capital risk and liquidity risk. Risk management related to financial activities is carried out by UPM's central treasury department, Treasury and Risk Management, under policies approved by the Board of Directors. Financial risks are described in the relevant notes as described below

FINANCIAL RISK	NOTE
Credit risk	4.6 Working capital
Liquidity and refinancing risk	5.1 Capital management
Interest rate risk	6.1 Financial risk management
Foreign exchange risk	6.1 Financial risk management
Electricity price risk	6.1 Financial risk management
Financial counterparty risk	6.2 Derivatives and hedge accounting

1.3 Consolidation principles

Subsidiaries

UPM's consolidated financial statements include the financial statements of the parent company, UPM-Kymmene Corporation, and subsidiaries controlled by UPM. All group entities apply consistently UPM's accounting policies. All intercompany transactions, receivables, liabilities and unrealised profits, as well as intragroup profit distributions, are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the transferred asset.

Joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is a contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

UPM's share in joint operations is recognised in the consolidated balance sheet through recognition of the group's own assets and liabilities and revenues and expenses in the arrangement together with UPM's proportionate share in the joint assets, liabilities and joint income and expenses. The proportionate share of realised and unrealised gains and losses arising from intragroup transactions between UPM and its joint operations is eliminated.

Associates and joint ventures

Associates are entities over which the group has significant influence but no control. Significant influence is the power to participate in the financial and operating policy decisions without the power to control or jointly control those policies. Joint ventures are joint arrangements where the group has joint control with other parties and the parties have rights to the arrangement's net assets.

Interests in associates and joint ventures are accounted for using the equity method of accounting and are initially recognised at cost.

Associates and joint ventures follow the group accounting policies for consolidation purpose.

Non-controlling interests

The profit or loss attributable to owners of the parent company and non-controlling interests is presented on the face of the income statement. Non-controlling interests are presented in the consolidated balance sheet within equity, separately from equity attributable to owners of the parent company.

Transactions with non-controlling interests are treated as transactions with equity owners of the group. For purchases from non-controlling interests, the difference between consideration paid and the acquired share of the carrying value of the subsidiary's net assets is recorded in equity. Gains or losses of disposals to non-controlling interests are also recorded in equity, net of transaction costs.

1.4 Foreign currency translation

Foreign currency transactions are translated into the functional currency using the exchange rate prevailing at the date of transaction. Receivables and liabilities denominated in foreign currencies outstanding on the balance sheet date are translated into the functional currency using the balance sheet date exchange rate. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement, except when recognised in other comprehensive income as qualifying cash flow hedges and qualifying net investment hedges.

UPM records foreign exchange differences relating to ordinary business operations within the appropriate line items above operating profit and those relating to financial items are presented separately as a net amount in finance costs.

Income and expenses of subsidiaries that have a functional currency different from euro are translated into euros at quarterly average exchange rates. Assets and liabilities of subsidiaries are translated at the closing rate at the balance sheet date. All resulting translation differences are recognised as a separate component in other comprehensive income. On consolidation, exchange differences arising from the translation of net investment in foreign operations and other currency instruments designated as hedges of such investments, are recognised in other comprehensive income. When a foreign entity is partially disposed of, sold or liquidated, translation differences accrued in equity are recognised in the income statement as part of the gain or loss on sale/liquidation.

1.5 Changes in accounting policies

The group has reviewed IFRS Accounting Standard amendments effective on periods starting 1 January 2023. The amendments effective as of 1 January 2023 did not have any impact on the group's financial statements.

IFRS 17 Insurance contracts

On 1 January 2023 the group implemented IFRS 17 Insurance contracts. The group has assessed the impact of the implementation of IFRS 17 and concluded that it has no effect on the group financial statements as of 1 January 2023.

Narrow-scope amendments to IAS 1

On 1 January 2023 the group has implemented the narrow-scope amendments to IAS 1, which require entities to disclose their material accounting policy information, instead of significant accounting policies. The group has reviewed its accounting policies and made minor amendments to the disclosures.

Reclassification of provisions in the balance sheet

Effective from the current reporting period, the group has reclassified current provisions to the current liabilities section. Previously both current and non-current provisions were presented within the non-current liabilities section of the balance sheet. This adjustment ensures better alignment with IFRS Accounting Standards accounting and facilitates a clearer understanding of short-term obligations. The comparative periods have been restated according to the new reporting principles. The reporting change has no impact on group financial result.

Liabilities in the balance sheet

2022	As published	Restated
Deferred tax liabilities	636	636
Net retirement benefit liabilities	527	527
Provisions	134	64
Non-current debt	4,476	4,476
Other non-current financial liabilities	103	103
Non-current liabilities	5,876	5,807
Current debt	558	558
Trade and other liabilities	2,720	2,720
Provisions	—	70
Other current financial liabilities	102	102
Income tax payables	73	73
Current liabilities	3,452	3,522
Liabilities	9,329	9,329

2. Business performance

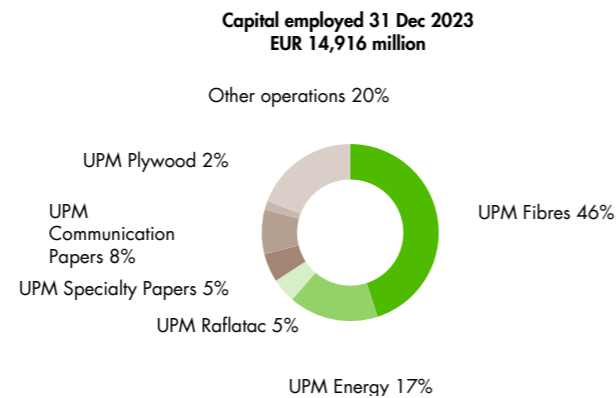
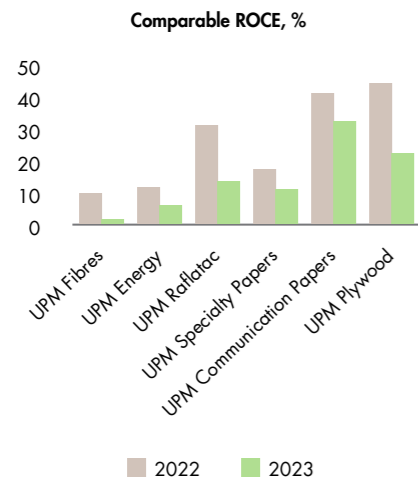
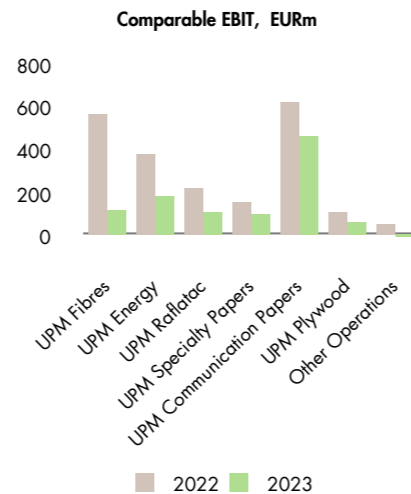


2.1 Business areas

UPM business portfolio consist of six competitive businesses with strong market positions. UPM reports financial information for the following business areas (segments): UPM Fibres, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Communication Papers, UPM Plywood and Other operations. UPM has production plants in 10 countries. The group's most important markets are Europe, North America and Asia.

Accounting policies

UPM business areas are reported consistently with the internal reporting provided to UPM's President and CEO who is responsible for allocating resources and assessing performance of the business areas. Internal reporting is prepared under the same basis as the consolidated accounts. Costs, revenues, assets and liabilities are allocated to business areas on a consistent basis. The sales transactions between business areas are based on market prices, and they are eliminated on consolidation.



The goods and services included in sales revenue of each business area are presented in below table:

BUSINESS AREA	DESCRIPTION AND PRODUCTS
UPM Fibres	UPM Fibres consists of UPM Pulp and UPM Timber business units. UPM Pulp offers a versatile range of responsibly-produced pulp grades suitable for a wide range of end uses such as tissue, specialty and packaging papers, graphic papers and board. UPM Timber offers certified sawn timber for joinery, packaging, furniture, planing and construction end-use segments.
UPM Energy	UPM Energy generates cost-competitive, zero-carbon electricity. Operations also include physical electricity and financial portfolio management as well as services to industrial electricity consumers and producers.
UPM Raflatac	UPM Raflatac offers innovative and sustainable self-adhesive label materials for branding and promotion, information and functional labelling in the food, beverage, personal care, pharmaceutical and logistics segments, for example.
UPM Specialty Papers	UPM Specialty Papers offers labelling and packaging materials as well as office and graphic papers for labelling, commercial siliconising, packaging, office use and printing.
UPM Communication Papers	UPM Communication Papers offers an extensive product range of sustainably produced graphic papers for advertising and publishing as well as home and office uses.
UPM Plywood	UPM Plywood offers high quality WISA® plywood and veneer products for construction, vehicle flooring, LNG shipbuilding, parquet manufacturing and other industrial applications.
Other operations	Other operations include UPM Forest, UPM Biofuels, UPM Biochemicals-, UPM Biomedicals-, UPM Biocomposites- business units and group services. UPM Forest secures competitive wood and biomass for UPM businesses and manages UPM-owned and privately-owned forests in North Europe. In addition, UPM offers forestry services to forest owners and forest investors. UPM Biofuels produces wood-based renewable diesel for all diesel engines and renewable naphtha that can be used as a biocomponent for gasoline or for replacing fossil raw materials in the petrochemical industry. UPM Biochemicals offers innovative wood-based biochemicals for replacing fossil-based raw materials in various applications such as textiles, PET bottles, packaging, cosmetics, pharmaceuticals, detergents, rubbers and resins. UPM Biomedicals is the forerunner in producing nanofibrillar cellulose for clinical and life science applications in the field of drug screening, personalised medicine, advanced cell therapies, 3D bioprinting, tissue engineering and wound care. UPM Biocomposites is a pioneer in circular economy offering composite decking materials based on both recycled consumer and industrial waste. The product range also includes composite materials made from renewable fibres and polymers to replace fossil-based plastics.

Key performance indicators and financial targets

UPM aims to grow its comparable EBIT over the long term. The group has a portfolio of five businesses that operate on growing markets and one business that faces declining demand. All of UPM businesses are competitive and have strong market positions. Financial target setting, follow up and allocation of resources in the group's performance management process is mainly based on the business area comparable EBIT and comparable ROCE.

UPM presents comparable performance measures to reflect the underlying business performance and to enhance comparability from period to period. However, the comparable performance measures used by management should not be considered in isolation as a substitute for measures of performance in accordance with IFRS. Business area information including description of items affecting comparability is presented below.

Business area information for the year ended 31 December 2023

EURm, OR AS INDICATED	UPM FIBRES	UPM ENERGY	UPM RAFLATAC	UPM SPECIALTY PAPERS	UPM COM PAPERS	UPM PLYWOOD	OTHER OPE-RATIONS	ELIMINATIONS AND RECONCILIATIONS ²⁾	GROUP
External sales	2,452	486	1,485	1,300	3,570	402	768	-3	10,460
Internal sales	592	141	—	185	28	20	34	-1,000	—
Total sales	3,044	628	1,485	1,485	3,598	422	802	-1,003	10,460
Comparable EBIT	116	182	103	98	462	56	-14	8	1,013
Items affecting comparability in operating profit	—	—	-22	—	-288	-6	-87	-2	-405
Operating profit	116	182	81	98	174	50	-101	6	608
Finance costs, net									-144
Income taxes									-71
Profit for the period									394
Operating assets ¹⁾	7,314	2,624	831	1,022	1,619	276	3,374	-411	16,648
Deferred tax assets									431
Other non-operating assets									62
Other financial assets									1,332
Total assets									18,473
Operating liabilities ¹⁾	419	116	144	219	377	29	431	-408	1,328
Deferred tax liabilities									616
Other liabilities									832
Other financial liabilities									4,166
Total liabilities									6,942
Other items									
Change in fair value of forest assets and wood harvested	-20	—	—	—	—	—	-82	—	-103
Share of results of associates and joint ventures	2	—	—	—	-1	—	-2	—	-1
Depreciation and amortisation	-270	-7	-43	-74	-78	-21	-44	—	-538
Impairment charges	-2	—	-4	—	-117	—	—	—	-123
Capital employed, 31 December	6,895	2,508	687	803	1,242	246	2,943	-408	14,916
Average capital employed	6,839	3,042	737	875	1,424	254	2,922	321	16,414
Capital expenditure	616	3	26	23	50	15	388	—	1,122
Capital expenditure, excluding acquisitions and shares	616	3	26	23	50	15	361	—	1,094
Comparable ROCE, %	1.7	6.0	14.0	11.2	32.4	22.2	-0.5	—	6.4
Personnel, 31 December	2,775	81	3,100	1,963	6,005	1,634	1,015	—	16,573

¹⁾ Business area's operating assets include goodwill, other intangible assets, property, plant and equipment, forest assets, energy shareholdings, investments in associates and joint ventures, inventories and trade receivables. Operating liabilities include trade payables and advances received.

²⁾ Eliminations and reconciliations include the elimination of internal sales and internal inventory margin and the changes in fair value of unrealised cash flow and commodity hedges that are not allocated to segments.

» Refer Other financial information on Alternative performance measures, for definitions of key figures and reconciliation to measures presented in the consolidated income statement and balance sheet prepared in accordance with IFRS Accounting Standards.

Business area information for the year ended 31 December 2022

EURm, OR AS INDICATED	UPM FIBRES	UPM ENERGY	UPM RAFLATAC	UPM SPECIALTY PAPERS	UPM COM PAPERS	UPM PLYWOOD	OTHER OPE-RATIONS ³⁾	ELIMINATIONS AND RECONCILIATIONS ²⁾	GROUP
External sales	2,052	343	1,981	1,423	4,792	518	608	2	11,720
Internal sales	652	390	—	254	73	21	26	-1,416	—
Total sales	2,704	734	1,982	1,677	4,866	539	634	-1,415	11,720
Comparable EBIT	570	381	214	153	619	109	81	-31	2,096
Items affecting comparability in operating profit	-53	—	-11	—	12	-65	-16	13	-122
Operating profit	517	381	203	153	631	44	64	-18	1,974
Finance costs, net									-30
Income taxes									-388
Profit for the period									1,556
Operating assets ¹⁾	6,888	4,068	995	1,316	2,245	297	3,153	-657	18,304
Deferred tax assets									485
Other non-operating assets									82
Other financial assets									3,336
Total assets									22,207
Operating liabilities ¹⁾	510	240	201	379	649	47	448	-596	1,878
Deferred tax liabilities									636
Other liabilities									733
Other financial liabilities									6,081
Total liabilities									9,329
Other items									
Change in fair value of forest assets and wood harvested	11	—	—	—	—	—	2	—	12
Share of results of associates and joint ventures	3	—	—	—	3	—	-2	—	4
Depreciation and amortisation	-187	-7	-37	-77	-81	-23	-45	—	-457
Impairment charges	—	—	-4	—	1	-43	-19	—	-65
Capital employed, 31 December	6,378	3,827	793	937	1,596	250	2,705	1,426	17,913
Average capital employed	5,867	3,286	681	889	1,506	247	2,577	784	15,836
Capital expenditure	1,005	8	175	18	57	9	283	1	1,555
Capital expenditure, excluding acquisitions and shares	1,005	8	18	18	57	9	283	1	1,399
Comparable ROCE, %	9.7	11.6	31.5	17.2	41.1	44.3	3.1	—	13.6
Personnel, 31 December	2,688	79	3,319	1,959	6,289	1,982	921	—	17,236

¹⁾ Business area's operating assets include goodwill, other intangible assets, property, plant and equipment, forest assets, energy shareholdings, investments in associates and joint ventures, inventories and trade receivables. Operating liabilities include trade payables and advances received.

²⁾ Eliminations and reconciliations include the elimination of internal sales and the changes in fair value of unrealised cash flow and commodity hedges that are not allocated to segments.

» Refer Other financial information on Alternative performance measures, for definitions of key figures and reconciliation to measures presented in the consolidated income statement and balance sheet prepared in accordance with IFRS Accounting Standards.

Items affecting comparability

EURm	2023	2022
In operating profit		
Impairment charges	-117	-80
Restructuring charges	-199	-15
Change in fair value of unrealised cash flow and commodity hedges	-2	13
Capital gains and losses on sale of non-current assets	—	34
Fair value changes of forest assets	-86	—
Other items	—	-74
Total	-405	-122
In finance costs	-65	—
Total in profit before tax	-470	-122
In income taxes		
Taxes related to items affecting comparability	107	9
Tax provisions	2	-10
Total	109	-1
Total in profit for the period	-361	-122

In 2023, items affecting comparability include EUR 120 million restructuring charges and EUR 112 million impairment charges of fixed and leased assets related to the closure of the UPM Plattling paper mill in Germany, EUR 30 million restructuring charges relating to the closure of paper machine 6 at the UPM Schongau mill in Germany, EUR 10 million charges related to the sale of the Steyrermühl site in Austria and EUR 13 million restructuring charges and EUR 2 million impairment charges related to restructuring measures at the UPM Raflatac Nancy factory in France. Fair value decrease of forest assets EUR 86 million results from changes of estimates and increase in discount rate used in valuation of forest assets in Finland. Items affecting comparability in finance costs include EUR 71 million exchange rate losses related to the sale of Russian subsidiaries.

In 2022, items affecting comparability include EUR 80 million impairment charges of assets impacted by Russia's war in Ukraine. Other items include EUR 69 million settlement loss resulting from replacement of a defined benefit pension plan in Finland with defined contribution plan. Tax provisions relate to tax dispute.

 Accounting policies

Certain non-operational or non-cash valuation transactions with significant income statement impact are considered as items affecting comparability and reported separately to reflect the underlying business performance and to enhance comparability from period to period. The group applies relevant IFRS Accounting Standards to such transactions.

Total assets and capital expenditure by country

EURm	Assets		Capital expenditure	
	2023	2022	2023	2022
Finland	8,633	12,478	153	82
Germany	2,139	1,946	358	468
Uruguay	5,817	5,364	581	980
China	572	680	4	4
United States	463	660	12	9
United Kingdom	103	108	4	1
Austria	106	96	—	1
Russia	—	31	—	—
Poland	145	179	4	6
Estonia	47	55	1	2
France	27	37	2	1
Other EU countries	54	65	—	—
Other European countries	32	40	—	—
Rest of world	335	467	1	2
Total	18,473	22,207	1,122	1,555

Sales by destination country

EURm	2023	2022
Finland	1,267	973
Germany	1,469	2,032
United States	1,366	1,623
United Kingdom	548	676
China	1,533	1,165
France	435	501
Uruguay	66	56
Poland	301	402
Austria	160	194
Russia	0	37
Other EU countries	1,594	2,033
Other European countries	306	388
Rest of world	1,415	1,639
Total	10,460	11,720

2.2 Sales

UPM generates revenue mainly from the sale of goods, i.e. several types of products.

The majority of UPM's revenue comes from sales of graphic and specialty papers to publishers, retailers, printing houses, merchants and distributors, converters and label stock manufacturers; sales of self-adhesive label materials to label printers and brand owners and sales of pulp products to tissue, board, specialty and graphic paper producers. The revenue comprises also sales of energy, biofuels, sawn timber and plywood products and a very limited amount of services not related to sale of goods.

UPM sells a proportion of its products to several major customers. The largest customer in terms of sales represented approximately 2% (3%) of UPM's sales and the ten largest customers represented approximately 13% (15%) of such sales.

The group disaggregates its external sales by business area, because this depicts how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. Sales by UPM business areas are reported consistently with the internal reporting provided to UPM's President and CEO who is responsible for allocating resources and assessing performance of the business areas. The goods and services included in sales revenue of each business area are presented in below tables.

» Refer Note 2.1 Business areas for information on UPM products.

External sales by major products

BUSINESS AREA	BUSINESS	2023	2022
EUR million			
UPM Fibres	UPM Pulp, UPM Timber	2,452	2,052
UPM Energy	UPM Energy	486	343
UPM Raflatac	UPM Raflatac	1,485	1,981
UPM Specialty Papers	UPM Specialty Papers	1,300	1,423
UPM Communication Papers	UPM Communication Papers	3,570	4,792
UPM Plywood	UPM Plywood	402	518
Other operations	UPM Forest, UPM Biofuels, UPM Biochemicals, UPM Biomedicals, UPM Biocomposites	768	608
Eliminations and reconciliations		-3	2
Total		10,460	11,720

BUSINESS	PRODUCT RANGE
UPM Pulp	Softwood, birch and eucalyptus pulp
UPM Timber	Standard and special sawn timber
UPM Energy	Electricity and related services
UPM Raflatac	Self-adhesive paper and film label stock
UPM Specialty Papers	Labelling materials, release base papers, flexible packaging materials, office papers, graphic papers
UPM Communication Papers	Graphic papers for various end uses
UPM Plywood	Plywood and veneer products
UPM Forest	Wood and wood-based biomass (logs, pulpwood, chips, forest residues etc.), full forestry service offering
UPM Biofuels	Wood-based renewable diesel for transport and renewable naphtha for transport and petrochemicals
UPM Biochemicals	Lignin products for industrial use
UPM Biomedicals	Wood-based products for biomedical applications
UPM Biocomposites	UPM ProFi decking products and UPM Formi granules

Sales by business area

EURm	2023	2022	CHANGE %
UPM Fibres	3,044	2,704	13 %
UPM Energy	628	734	-14 %
UPM Raflatac	1,485	1,982	-25 %
UPM Specialty Papers	1,485	1,677	-11 %
UPM Communication Papers	3,598	4,866	-26 %
UPM Plywood	422	539	-22 %
Other operations	802	634	26 %
Eliminations	-1,003	-1,415	—
Total	10,460	11,720	-11 %

Effect of a 10% change in prices on operating profit for the year

EURm	2023	2022
Papers in UPM Communication Papers	340	464
Fine and specialty papers in UPM Specialty Papers	128	139
Label materials in UPM Raflatac	148	198
Plywood	39	51
Sawn timber	35	48
Chemical pulp (net effect)	126	46

The figures above illustrate the effects on the operating profit of years 2023 and 2022 only. The biggest factor affecting UPM's financial results is the sales price of paper. A change in the volume delivered has less than half of the effect of the same percentage change in sales prices. UPM Paso de los Toros pulp mill was ramped up since April 2023. Had the mill operated for the entire year of 2023, the sensitivity to changes in chemical pulp prices would have increased to EUR 190 million.

Accounting policies

Sales of goods

UPM's performance obligation in the contracts with customers consists of providing the goods specified in the contracts. Revenue from UPM's product sales is recognised when performance obligation is satisfied, which takes place at point in time when control of the good has been transferred to the customer. In UPM's customer contracts the transfer of control and thus timing of revenue recognition is largely dependent on delivery terms. Group terms of delivery are based on Incoterms 2020, the official rules for interpretation of trade terms issued by the International Chamber of Commerce. Major part of the sales contracts is on delivery terms basis, whereby delivery is not a promised service to the customer, as the control of a good does not transfer to the customer before shipment. Revenue and the corresponding receivable are recorded at the point in time when the product is delivered to the destination point for terms designated Delivered Duty Paid ("DDP") or Delivered at Place ("DAP"). For sales transactions designated free of carriage (FCA), revenue is recorded at the time of shipment. For sales transactions designated as Carriage paid to (CPT) or Carriage and Insurance Paid to (CIP), the portion of revenue relating to goods is recorded at the time of loading and the portion of revenue relating to delivery services over time when the service has been performed.

UPM sells energy to NordPool electricity market. Revenue is recognised when electricity is transmitted over time.

Sales of services

UPM provides forest expertise and contracting services to woodland and forestry owners and freight services (free space on group's vessels sold as freight services). Revenues from services are recorded over time when the service has been performed. Sales of services is very limited and thus the group does not report it separately.

Revenue recognition

The group recognises revenue as an amount equal to the price specified in the customer contract net of any sales taxes, cash flow hedging results of sales in foreign currency, hedges of energy sales and variable consideration, when applicable. Variable consideration is defined as any variability that may occur between the sales price and the amount

UPM expects to receive. The variable consideration includes mainly cash discounts and volume rebates that encourage the customer to take specific volumes in a given timescale. In addition, the group gives the customers the right for purchase price refund in case the products do not meet the quality as specified in the agreement. The amount of variable consideration is recognised as a refund liability when some of the amount received is expected to be refunded to the customer. Customer rebates payable to customers in relation to sales made until the end of the reporting period and expected quality claims are estimated using the expected value method, and revenue is only recognised to the extent that it is highly probable that a significant reversal will not occur. A refund liability is included in trade and other payables.

Receivables are recognised when the goods are delivered, and the consideration is unconditional except for the passage of time. For most of UPM's customer contracts the period between the transfer of goods or services to customers and the receipt of payment is less than 12 months. For these contracts the group has elected to use the practical expedient not to adjust revenue for the effect of financing components.

Advance payments received from customers are recognised as contract liability. UPM does not have any contract assets arising from contracts with customers.

» Refer Note 4.6 Working capital for information on contract liabilities and refund liabilities.

2.3 Operating expenses and other operating income

Operating expenses

Operating expenses excluding forest assets fair value change, wood harvested and share of results of associates and joint ventures are presented below.

EURm	2023	2022
Costs and expenses		
Raw materials, consumables and goods	6,000	6,260
Employee costs ¹⁾	1,287	1,181
Other operating costs and expenses ²⁾	1,143	1,028
Delivery costs and other external charges	886	1,001
Total	9,316	9,470

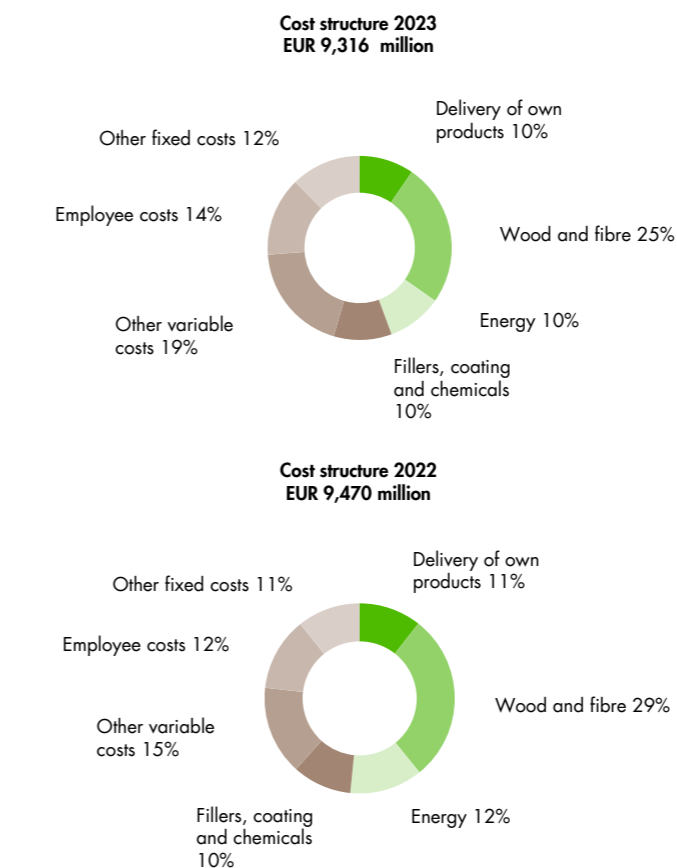
¹⁾ » Refer Note 3 Employee rewards, for further information.

²⁾ Distribution of other operating costs and expenses

EURm	2023	2022
Rents and lease expenses	23	29
Emission expenses ¹⁾	18	70
Losses on sale of non-current assets	6	1
Credit losses	4	9
Maintenance and other operating expenses ²⁾	1,092	919
Total	1,143	1,028

¹⁾ Emission expenses include gains on sales of emission rights EUR 49 million (losses EUR 2 million).

²⁾ Other operating expenses include, among others, energy as well as expenses related to services and group's administration.



Auditor's fees

EURm	2023	2022
Audit fee	4.4	4.0
Audit related services	0.2	0.2
Tax services	0.3	0.3
Other services	0.1	0.1
Total	5.0	4.6

In 2023, auditor's fees include EUR 0.2 (0.2) million related to audit services, EUR 0.0 (0.0) million related tax services and EUR 0.1 (0.1) million related to other services paid to PricewaterhouseCoopers Oy.

Research and development costs

The research and development costs included in operating expenses were EUR 66 million (55 million) in 2023. The focus was on new technologies and developing businesses.

Government grants

In 2023, government grants recognised as deduction of operating expenses totalled to EUR 16 million (10 million) of which EUR 16 million (8 million) relates to Finland. In addition, the group received emission rights from governments amounting to EUR 154 million (208 million) of which EUR 65 million (122 million) relates to Finland, EUR 79 million

(74 million) to Germany, EUR 5 million (8 million) to Austria and EUR 4 million (4 million) to UK.

In addition, the company receives electricity price compensation in Germany and Finland. The group considers that the conditions related to subsidies have been met. Accordingly, the subsidies have been recorded as income for the period when the subsidy has been received. The authorities monitor the use of subsidies afterwards.

Other operating income

EURm	2023	2022
Gains on sale of non-current assets	8	37
Rental income	10	12
Emission rights received	154	208
Derivatives, non-qualifying hedges	4	3
Exchange rate gains and losses	-35	-47
Other	88	17
Total	228	231

Emission rights

The group has recognised EUR 154 million (208 million) of income in Other operating income and EUR 18 million of expense (70 million of expense) under Other operating costs and expenses relating to CO₂ emissions. The liability to cover the obligation to return emission rights amounted to EUR 56 million (53 million) and is recognised in provisions. The emission rights recognised in intangible assets are specified below:

EURm	2023	2022
Carrying value, at 1 January	235	104
Emission rights received and purchased	159	231
Deliveries and disposals	-134	-100
Impairment	-3	—
Reclassifications to assets held for sale	-1	—
Carrying value, at 31 December	256	235
Accumulated costs	260	236
Accumulated impairments	-4	-1
Carrying value, at 31 December	256	235

Accounting policies

Research and development costs

Research and development costs are expensed as incurred, except for certain development costs, which are capitalised as they generate future economic benefits, and UPM can measure the cost reliably.

Capitalised development costs are amortised on a systematic basis over their expected useful lives, usually not exceeding five years.

Government grants

Government grants are recognised at fair value where there is a reasonable assurance that the grant will be received and the group will comply with the attached conditions. Government grants relating to the purchase of property, plant and equipment are deducted from the acquisition cost of the asset and accordingly directly reduce the annual depreciation of the underlying asset. Other government grants are recognised in the income statement in the period necessary to match

them with the costs they are intended to compensate. A government grant can also become receivable by the group as compensation for expenses incurred in a previous period. Such a grant is recognised in profit or loss of the period in which it becomes receivable.

Other operating income

Other operating income mainly includes gains on the disposal of non-current assets and rental income. Further, other operating income includes foreign exchange gains and losses in respect of UPM's normal business activities. Gains and losses on derivatives not qualifying hedge accounting are also recognised in other operating income.

Emission rights

The group participates in the European Emissions Trading Scheme aimed at reducing greenhouse gas emissions. Emission rights received from governments free of charge to emit a fixed tonnage of carbon dioxide in a fixed period of time give rise to an intangible asset for the emission rights, a government grant and a liability for the obligation to deliver emission rights equal to the emissions that have been made during the compliance period.

Emission rights are initially recognised as intangible assets based on market value at the date of initial recognition. Emission rights are not amortised. If the market price of emissions rights at the balance sheet date is less than the recognised costs, any surplus emission rights that are not required to cover actual and estimated emissions during the financial year, are impaired to the market price.

Government grants are recognised as deferred income in the balance sheet at the same time as emission rights and are recognised in other operating income in the income statement, systematically, over the compliance period to which the corresponding emission rights relate.

The liability to deliver emission rights is recognised based on actual emissions. The emissions realised are expensed under other operating costs and expenses in the income statement and presented as a provision in the balance sheet. The liability is settled using emission rights on hand, measured at the carrying amount of those emission rights. Emission rights and associated provisions are derecognised when disposed. Any profit or loss represents the costs of purchasing additional rights to cover excess emissions, the sale of unused rights in the case realised emission are under emission rights received free of charge or the impairment of unused emission rights.

2.4 Earnings per share and dividend

On 2 February 2023, UPM's Board of Directors revised the company's dividend policy to be based on earnings instead of cash flow.

According to new dividend policy, the company aims to pay attractive dividends, targeting at least half of the comparable earnings per share over time.

The dividend paid in 2023 were EUR 800 million (EUR 1.50 per share) which is 158% of the operating cash flow per share and in 2022 EUR 693 million (EUR 1.30 per share). The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 800 million, EUR 1.50 per share, will be paid in respect of 2023. The proposed dividend represents 107% of UPM's comparable earnings per share for the year 2023.

Earnings per share

EURm	2023	2022
Profit attributable to owners of the parent company, EURm	388	1,526
Weighted average no. of shares (1,000)	533,324	533,324
Basic earnings per share, EUR	0.73	2.86
Diluted earnings per share, EUR	0.73	2.86



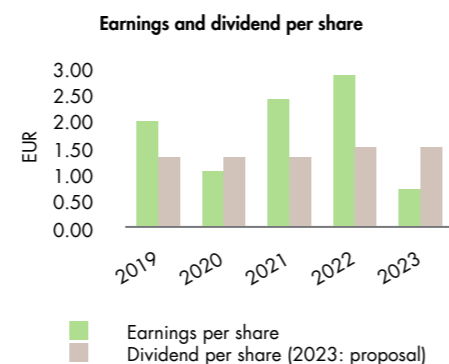
Accounting policies

Earnings per share

Earnings per share (EPS) is the amount of profit for the period attributable to each share. The basic earnings per share are computed using the weighted average number of shares outstanding during the period. Diluted earnings per share are computed using the weighted average number of shares outstanding during the period plus the dilutive effect of share options. The group did not have share-option schemes at the end of 2023 and 2022.

Dividend

Dividend distribution to the owners of the parent company is recognised as a liability in the group's consolidated financial statements in the period in which the dividends are approved by the parent company's shareholders.



3. Employee rewards

3.1 Employee costs

EURm	2023	2022
Salaries and fees	1,039	901
Share-based payments	15	16
Pension and other post-employment benefits, defined benefit plans ¹⁾	21	77
Pension costs, defined contribution plans	101	93
Other indirect employee costs ²⁾	111	94
Total	1,287	1,181

¹⁾ 2022 includes EUR 69 million settlement loss related to replacement of a defined benefit pension plan in Finland with defined contribution plan.

²⁾ Other indirect employee expenses primarily include other statutory social expenses, excluding pension expenses.

3.2 Key management personnel

The remuneration of the Chair of the Board of Directors was resolved to be raised so that the Chair of the Board was paid an annual base fee of EUR 218,000, the Deputy Chair of the Board EUR 145,000 and the other members of the Board EUR 120,000.

The annual base fee was paid in company shares and cash so that approximately 40% of the fee was paid in the company shares purchased on the Board members' behalf, and the rest in cash. The company paid any costs and transfer tax related to the purchase of the company shares.

The remuneration of annual committee fees remained unchanged, and the Chair of Audit Committee received annual committee fee of EUR 35,000, the Chair of Nomination and Governance Committee EUR 20,000 and the Chair of Remuneration Committee EUR 27,500. The members of Audit Committee received annual committee fee of EUR 15,000 and members of other committees EUR 10,000. The annual committee fees were paid in cash.

In 2023, 3,027 (2,489) company shares were purchased to the Chair, 2,013 (1,742) to the Deputy Chair and 1,666 (1,431) to other members of the Board.

Shareholdings (no. of shares) and fees of the Board of Directors

	Shareholdings 31 December		Annual base fee (EUR 1,000)		Annual committee fee (EUR 1,000)	
	2023	2022	2023	2022	2023	2022
Board members						
Henrik Ehrnrooth, Chair ¹⁾	17,488	14,461	218	140	20	10
Kim Wahl, Deputy Chair ²⁾	27,962	25,949	145	115	35	35
Pia Aaltonen-Forsell ³⁾	1,666	—	120	—	15	—
Emma FitzGerald	3,097	4,644	120	115	10	10
Jari Gustafsson	4,502	2,836	120	115	10	15
Piia-Noora Kauppi	25,701	24,035	120	115	10	10
Topi Manner	3,097	1,431	120	115	10	10
Marjan Oudeman	11,260	9,594	120	115	15	15
Martin à Porta	26,510	24,844	120	115	28	28
Björn Wahlroos, Chair ⁴⁾	—	273,189	—	200	—	20
Total	121,283	380,983	1,203	1,145	153	153

¹⁾ Henrik Ehrnrooth, Chair as of 12 April 2023

²⁾ Kim Wahl, Deputy Chair as of 12 April 2023

³⁾ Pia Aaltonen-Forsell was elected as a new director to the Board in 2023

⁴⁾ Björn Wahlroos, Chair until 12 April 2023

Salaries and benefits paid to the President and CEO and the Group Executive Team

EUR 1,000	President and CEO Jussi Pesonen		Other members of Group Executive Team ¹⁾	
	2023	2022	2023	2022
Salaries	1,161	1,153	3,950	4,140
Short-term incentives	1,473	1,309	2,973	2,739
Share rewards	2,902	2,997	9,242	9,347
Benefits	24	28	139	135
Total	5,561	5,486	16,304	16,361

¹⁾ 11 members in 2023 and 2022.

In 2023, costs under the Finnish statutory pension scheme for the President and CEO amounted to EUR 469,000 (458,000) and payments under the voluntary pension plan amounted to EUR 911,000 (1,000,000).

In 2023, costs under the Finnish and German statutory pension schemes for Group Executive Team (GET) members (excluding the President and CEO) amounted to EUR 881,000 (941,000) and payments under the voluntary pension plan amounted to EUR 994,000 (987,000).

The remuneration of the President and CEO and other members of the Group Executive Team consists of the base salary and benefits, short-term incentives and long-term share-based incentives.

In 2023 and 2022, the short-term incentives were based on the company's Short-Term Incentive Plan and they are paid annually in cash. The amount of the incentive is linked to the executive's position and achievement of annually set targets. The maximum incentives amount to a total of 110% of the annual base salary to the Business Area Executives and to a total of 90% of annual base salary to the other members of the Group Executive Team. For the President and CEO, the maximum annual incentive amounts to 150% of the annual base salary.

The expenses recognised in income statement in respect of share-based payments for the Group Executive Team were EUR 4.3 million (3.6 million).

According to the service agreement, the UPM's President and CEO Jussi Pesonen would have been entitled to retire in November 2020 at the age of 60 but at the request of the company's Board of Directors, the President and CEO decided to continue in his position longer. In accordance with the terms of his service contract, President and CEO Jussi Pesonen announced that he will exercise his right to retire from UPM in during 2024. In October 2023, Massimo Reynaudo was appointed to President and CEO of UPM-Kymmene Corporation as of 1 January 2024. Jussi Pesonen continued as the President and CEO until 31 December 2023, after which he will work as an advisor to the Company and its management until he will retire from UPM on 30 April, 2024.

The President and CEO Jussi Pesonen has a voluntary pension benefit in addition to the Finnish statutory pension scheme. The

voluntary pension benefit was arranged through a defined benefit plan until the end of November 2020. The last contribution to the defined benefit plan was made in 2020. Under the defined benefit plan, the target pension was 60% of the average indexed earnings from the last ten full calendar years of employment calculated according to the Finnish statutory pension scheme. The income of the President and CEO Jussi Pesonen's defined benefit pension plan in 2023 was EUR 0.7 million (0.5 million in 2022). The plan assets amounted to EUR 10.4 million (10.8 million) and the obligation amounted to EUR 9.7 million (9.6 million). As of December 2020, the voluntary pension benefit is arranged through a defined contribution plan. First contribution to the defined contribution plan took place in 2021.

The retirement age of other members of the Group Executive Team is 65 or 63 for executives who have become Group Executive Team members before December 2023. They are covered by the statutory pension plan in the country of residence, supplemented by voluntary defined contribution pension plans. For other GET members, the period for severance pay is 12 months, in addition to the six months' salary for the notice period, unless notice is given for reasons that are solely attributable to the executive. Should a GET member give notice of termination to the company, no severance pay will be paid in addition to the salary for the notice period.

The UPM's new President and CEO Massimo Reynaudo's retirement age is 65 years. He has a voluntary pension benefit to supplement the Finnish statutory pension scheme (TyEL). The voluntary pension benefit is arranged through a defined contribution plan. Should the company give notice of termination of the President and CEO Massimo Reynaudo's service agreement, severance pay of 12 months base salary will be paid in addition to the salary for the 12-month notice period. Should the President and CEO give notice of termination to the company, no severance pay will be paid in addition to the salary for the notice period.

If there is a change of control in the company, the President and CEO may terminate his service agreement within three months and each GET member within one month from closing the takeover and shall receive compensation equivalent to 24 months' base salary.

Performance Share Plan

The Performance Share Plan (PSP) is targeted at the President and CEO and other Group Executive Team (GET) members as well as other selected members of the management. Under the PSP 2020–2022 and PSP 2021–2023 UPM shares are awarded based on total shareholder return during a three-year earning period. Total shareholder return takes into account share price appreciation and paid dividends.

The performance measures for the PSP 2022–2024 and PSP 2023–2025 comprise the total shareholder return (80% weighting) and selected environmental, social and governance related (ESG) measures. In all plans, the earned shares are delivered after the earning period has ended.

PERFORMANCE SHARE PLANS	PSP 2020-2022	PSP 2021-2023	PSP 2022-2024	PSP 2023-2025
No. of participants at 31 December 2023	25	22	24	24
Actual achievement	100 %	34.62 %	—	—
Max no. of shares to be delivered ¹⁾				
to the President and CEO Jussi Pesonen	85,589	28,829	80,870	75,802
to other members of GET	272,500	89,562	279,000	265,000
to other selected members of management	160,200	42,272	138,500	125,500
Total max no. of shares to be delivered	518,289	160,663	498,370	466,302
Share delivery (year)	2023	2024	2025	2026
Earning criteria (weighting)	Total shareholder return (100%)	Total shareholder return (100%)	Total shareholder return (80%) ESG (20%) ²⁾	Total shareholder return (80%) ESG (20%) ³⁾

¹⁾ For PSP 2020–2022 and PSP 2021–2023, the gross number of shares actually earned.

²⁾ ESG measures are reduction of fossil CO₂ emissions from UPM's own combustion and purchased electricity by 65% by 2030 from 2015 level (10% weighting), achievement of a net positive impact on biodiversity in the company's own forests in Finland (5% weighting) and achievement of gender pay equity (5% weighting).

³⁾ ESG measures are reduction of fossil CO₂ emissions from UPM's on-site combustion and purchased energy by 65% by 2030 from 2015 level (10% weighting), achievement of a net positive impact on biodiversity in the company's own forests in Finland (5% weighting) and achievement of gender pay equity (5% weighting).

Deferred Bonus Plan

The Deferred Bonus Plan (DBP) is targeted at other selected key employees and it consists of annually commencing plans. Each plan consists of a one-year earning period and a two-year restriction period.

UPM shares are awarded based on achievement of group or group and business area EBITDA targets. Prior to share delivery, the share rewards earned are adjusted with dividends and other capital distributions, if any, paid to all shareholders during the restriction period.

DEFERRED BONUS PLANS	DBP 2020	DBP 2021	DBP 2022	DBP 2023
No. of participants (at grant)	393	428	451	446
No. of participants (at 31 December 2023)	330	350	398	431
Max no. of shares to be delivered (at grant)	429,558	459,912	487,130	477,052
Estimated no. of shares to be delivered at 31 December 2023 ¹⁾	141,642	355,032	388,173	48,806
Share delivery (year)	2023	2024	2025	2026
Earning criteria	Group/Business Area EBITDA	Group/Business Area EBITDA	Group/Business Area EBITDA	Group/Business Area EBITDA

¹⁾ For DBP 2020 and DBP 2021, the gross number of shares actually earned

The indicated actuals and estimates of the share rewards under the Performance Share Plan and the Deferred Bonus Plan represent the gross amount of the rewards of which the applicable taxes will be deducted before the shares are delivered to the participants.

combination of shares and cash. The group may obtain the necessary shares by using its treasury shares or may purchase shares from the market. PSP and DBP share deliveries are executed by using already existing shares and the plans, therefore, have no dilutive effect.

Accounting policies

The group's long-term share incentive plans are recognised as equity-settled or cash-settled share-based payment transactions depending on the settlement. The group classifies the transactions with net settlement features for tax obligations as equity-settled in its entirety. Shares are valued using the market rate on the grant date. The settlement is a

3.4 Retirement benefit obligations

The group operates various pension schemes in accordance with local conditions and practices in the countries of operations. Retirement benefits are employee benefits that are payable usually after the termination of employment, such as pensions and post-employment medical care.

The pension plans are generally funded through payments to insurance companies or to trustee-administered funds or foundations and classified as defined contribution plans or defined benefit plans.

Defined benefit assets and liabilities recognised in the balance sheet are presented below:

EURm	2023					2022				
	FINLAND	UK	GERMANY	OTHER COUNTRIES	TOTAL	FINLAND	UK	GERMANY	OTHER COUNTRIES	TOTAL
Present value of funded obligations	26	320	30	2	377	27	316	30	11	384
Fair value of plan assets	-26	-297	-2	-2	-327	-26	-300	-2	-11	-340
Deficit (+)/surplus (-)	0	23	27	0	50	0	16	27	0	44
Present value of unfunded obligations	—	—	417	16	434	—	—	414	52	466
Net defined benefit liability (+)/asset (-)	0	23	445	16	484	0	16	442	52	510
Net retirement benefit asset in the balance sheet	-1	—	—	—	-1	-1	—	—	—	-1
Net retirement benefit liability in the balance sheet ¹⁾	0	23	445	16	485	1	16	442	52	511

¹⁾ Net retirement benefit liability in the balance sheet includes other long-term employee benefits of EUR 17 million (16 million) in 2023.

Approximately 14% (15%) of UPM's employees are active members of defined benefit arrangement plans. In 2023, net retirement benefit liability of EUR 36 million of UPM-Kymmene Austria GmbH is presented in liabilities related to assets held for sale, » Refer note 8.4, and consists of unfunded obligations. In 2022, the most significant defined benefit plan in Finland (UPM Sellutehtaiden eläkesäätiö) was replaced with defined contribution arrangement. Following the replacement, UPM's most significant defined benefit arrangements are in the UK and in Germany. The group has defined benefit obligations also in Holland, France, Canada and in the US.

Finland

In Finland employers are obliged to insure their employees for statutory benefits, as determined in Employee's Pension Act (TyEL). TyEL provides the employee with insurance protection for old age, disability and death.

Group's Finnish employees are mainly insured with an insurance company and these arrangements qualify as defined contributions plans. Previously part of group's Finnish employees were insured with TyEL foundation (UPM Sellutehtaiden eläkesäätiö) which was classified as a defined benefit plan. In 2022, TyEL foundation was replaced with

defined contribution arrangement. The assets and liabilities of the plan were transferred to the insurance company and the group recognised EUR 69 million settlement loss in the income statement. The cash received on the settlement amounted to EUR 128 million.

UK

In the UK, the group operates a legacy defined benefit scheme providing benefits that are linked to the salary level near retirement age or an earlier date of leaving service. The scheme is closed both for new members and future accrual for old members. Part of the scheme is a defined contribution plan and is open to all current employees. The UK pension scheme operates under a single trust which is independent from the group.

Germany

In Germany employees within defined benefit arrangements are entitled to annual pensions on retirement based on their service and final salary. All significant defined benefit plans are closed for new employees.

Present value of obligation and fair value of plan assets

EURm	Pension and other post-employment benefits 2023			Pension and other post-employment benefits 2022		
	PRESENT VALUE OF OBLIGATION	FAIR VALUE OF PLAN ASSETS	NET DEFINED BENEFIT LIABILITY/ (ASSET)	PRESENT VALUE OF OBLIGATION	FAIR VALUE OF PLAN ASSETS	NET DEFINED BENEFIT LIABILITY/ (ASSET)
Carrying value, at 1 January	850	-340	510	1,790	-1,214	576
Current service cost	5	—	5	11	—	11
Past service cost	-1	—	-1	-1	—	-1
Gains and losses arising from settlements ¹⁾	—	—	—	62	—	62
Interest expense (+) income (-)	32	-15	17	18	-13	5
Total included in employee costs (Note 3.1)	36	-15	21	90	-13	77
Actuarial gains and losses arising from changes in demographic assumptions	-13	—	-13	—	—	—
Actuarial gains and losses arising from changes in financial assumptions	9	—	9	-562	—	-562
Actuarial gains and losses arising from experience adjustments	12	—	12	50	—	50
Return on plan assets, excluding amounts included in interest expense (+) income (-)	—	6	6	—	263	263
Total remeasurement gains (-) and losses (+) included in other comprehensive income	7	6	14	-512	263	-249
Benefits paid	-44	44	—	-59	59	—
Settlements paid	-9	9	—	-431	431	—
Contributions by the employer	—	-25	-25	—	104	104
Translation differences	6	-6	—	-29	30	1
Liabilities classified as held for sale (Note 8.4)	-36	—	-36	—	—	—
Carrying value, at 31 December	810	-327	484	850	-340	510

¹⁾ In 2022, gains and losses on settlement relate to replacement of a defined benefit pension plan in Finland with defined contribution plan.

Actuarial risks

Defined benefit plans typically expose the group to the following actuarial risks:

Investment risk (asset volatility)

The group is exposed to changes of assets' values especially in the UK. The asset values of UK arrangements constitute 91% of total asset values in defined benefit plans within group.

Interest risk

Discount rates used in calculations are based on high-quality corporate bond yield curves in currency in which the benefits are paid. A decrease in the discount rate would increase the plan liabilities. The maturities of yields are reflecting the durations of the underlying obligations. The weighted average duration of group's defined benefit obligation is 14 years (14 years) at the end of 2023.

Inflation risk

In the UK, the pensions in payment are tied to Retail Price Index whilst being tied to Consumer Price Index during deferment. An increase of 0.5% in indexes will increase the liabilities by approximately EUR 17 million. In Germany the pensions have to be adjusted in accordance with the Consumer Price Index.

Salary risk

The present value of the net retirement benefit assets and liabilities is calculated by reference to the expected future salaries of plan participants. An increase in the salary of the plan participants would increase the plan liabilities. In the UK, the changes in salary levels have no impact on the funding position as all defined benefit arrangements in the UK are closed to future accrual. In Germany, an increase of 0.5% in expected future salaries would increase the obligation by EUR 6 million.

Life expectancy

Adjustments in mortality assumption have an impact on group's defined benefit obligation. An increase in life expectancy by one year will increase the obligation in the UK by EUR 12 million and in Germany by EUR 17 million.

Key estimates and judgements

Several actuarial assumptions are used in calculating the expense and liability related to the defined benefit plans. Statistical information used may differ materially from actual results due to, among others,

changing market and economic conditions, or changes in service period of plan participants. Significant differences in actual experience or significant changes in assumptions may affect the future amounts of the defined benefit obligation and future expense.

Actuarial assumptions

The weighted average principal assumptions used in the valuations of the defined benefit obligations are detailed below:

	FINLAND		UK		GERMANY		OTHER COUNTRIES	
	2023	2022	2023	2022	2023	2022	2023	2022
Discount rate %	3.11	3.25	4.55	4.80	3.26	3.32	4.16	3.67
Inflation rate %	2.13	2.53	3.10	3.25	2.00	2.00	2.28	2.51
Rate of salary increase %	1.89	2.23	—	—	2.50	2.50	2.50	2.87
Rate of pension increase %	1.44	1.77	3.00	3.15	2.00	2.00	—	1.13
Expected average remaining working years of participants	1.0	1.9	8.8	9.5	8.1	8.0	11.5	9.0

EURm	0.5% INCREASE		0.5% DECREASE	
	2023	2022	2023	2022
Discount rate %	-50	-52	54	57
Rate of salary increase %	6	7	-6	-7
Rate of pension increase %	40	39	-37	-38
Life expectancy +1 year	29	29	—	—

A negative change indicates a decrease in the defined benefit obligation. A positive change indicates an increase in the defined benefit obligation.

Plan assets by categories at 31 December

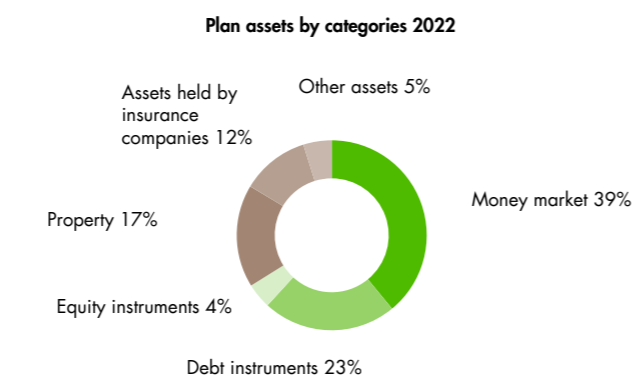
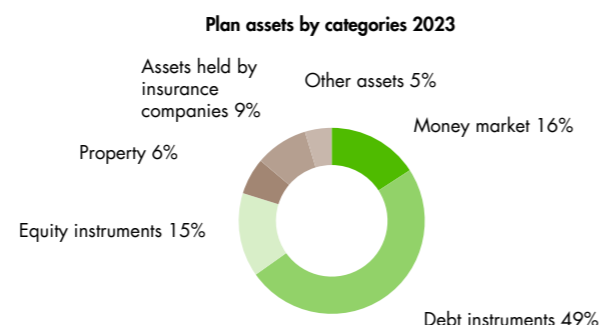
EURm	2023		2022	
	Quoted	Unquoted	Quoted	Unquoted
Money market	49	2	97	36
Debt instruments	129	32	—	77
Equity instruments	3	45	—	15
Property	—	21	—	59
Assets held by insurance companies	—	30	—	39
Other assets	—	15	—	16
Total	182	145	97	243

In 2023 plan assets include the company's ordinary shares with a fair value of EUR 0 million (0 million).

In 2024 contributions of EUR 22 million are expected to be paid to group's defined benefit plans. In 2023 contributions of EUR 25 million were paid to group's defined benefit plans.

Sensitivity analysis of defined benefit obligations

The sensitivity analysis shows the effect of the change in assumption. The analysis assume that all other assumptions remain unchanged. The projected unit credit method has been applied when calculating the obligation as well as these sensitivities.



Accounting policies

Defined benefit pension plans

Plan benefits depend on salary and length of service. The defined benefit obligations are calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the term of the related pension liability. The liability recognised in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date less the fair value of plan assets. The cost of providing pensions is charged to the income statement as employee costs so as to spread the cost over the service lives of employees. Changes in actuarial assumptions and actuarial gains and losses arising from experience adjustments are charged or credited in other comprehensive income in the period in which they arise. Past service costs and gains or losses on settlement are recognised immediately in income when they occur.

Defined contribution plans

For defined contribution plans, contributions are paid to pension insurance companies. Once the contributions have been paid, there are no further payment obligations. Contributions to defined contribution plans are charged to the income statement in the period to which the contributions relate.

Other post-employment obligations

Some group companies provide post-employment medical and other benefits to their retirees. The entitlement to healthcare benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment, using an accounting methodology similar to that for defined benefit pension plans. Valuations of these obligations are carried out by independent qualified actuaries.

4. Capital employed

UPM's capital employed primarily relates to its production facilities and both forest and energy assets. UPM aims to capture growth opportunities in its existing business portfolio and invest in projects with attractive and sustainable returns.

Capital employed

EURm	2023	2022
Property, plant and equipment	7,053	6,733
Leased assets	683	713
Forest assets	2,355	2,442
Energy shareholdings	2,283	3,652
Goodwill and other intangible assets	998	834
Operating working capital	1,883	2,026
Provisions	-266	-134
Net retirement benefit assets and liabilities	-501	-526
Cash and cash equivalents	632	2,067
Other assets and liabilities	-69	257
Net deferred tax assets and liabilities	-185	-151
Assets classified as held for sale, net	50	—
Total	14,916	17,913

4.1 Property, plant and equipment

EURm	LAND AND WATER AREAS	BUILDINGS	MACHINERY AND EQUIPMENT	OTHER TANGIBLE ASSETS	CONSTRUCTION IN PROGRESS	TOTAL
2023						
Accumulated costs	862	4,766	14,771	891	925	22,216
Accumulated depreciation and impairments	-2	-2,693	-11,752	-716	—	-15,163
Carrying value, at 31 December	861	2,073	3,019	175	925	7,053
Carrying value, at 1 January	900	1,054	1,638	148	2,993	6,733
Additions	2	—	5	—	1,067	1,074
Companies acquired	—	—	—	—	—	1
Disposals	—	-1	—	—	—	-2
Depreciation	—	-92	-310	-19	—	-422
Impairment	—	-3	-15	-3	—	-20
Reclassifications ¹⁾	—	1,135	1,723	53	-3,052	-141
Reclassifications to assets held for sale ²⁾	-17	-1	-1	-1	—	-21
Translation differences	-23	-19	-20	-3	-84	-149
Carrying value, at 31 December	861	2,073	3,019	175	925	7,053
2022						
Accumulated costs	902	3,707	13,163	866	2,993	21,628
Accumulated depreciation and impairments	-2	-2,653	-11,526	-718	—	-14,895
Carrying value, at 31 December	900	1,054	1,638	148	2,993	6,733
Carrying value, at 1 January	857	848	1,674	122	2,069	5,569
Additions	5	1	7	1	1,353	1,366
Companies acquired	3	26	20	—	6	56
Disposals	-3	-4	-1	-1	—	-9
Depreciation	—	-75	-266	-17	—	-357
Impairment	—	-10	-37	-5	—	-52
Reclassifications	—	260	235	45	-540	1
Translation differences	39	8	4	2	106	159
Carrying value, at 31 December	900	1,054	1,638	148	2,993	6,733

¹⁾ Reclassifications include a reclassification of EUR 140 million to intangible assets, which relates to the start-up and final classification of assets in the Uruguay pulp mill investment » [Refer note 4.4 Goodwill and other intangible assets.](#)

²⁾ Reclassification to assets held for sale relates to agreement to sell 100% of the shares of the Austrian subsidiary UPM-Kymmene Austria GmbH. » [Refer note 8.4 Assets held for sale.](#)

Capital expenditure

Capital expenditure, excluding acquisitions and shares, amounted to EUR 1,094 million (1,399 million) in 2023.

In December 2021, UPM announced that it would invest EUR 10 million in the development of UPM Plywood's plywood mill in Joensuu, Finland. The investment includes new production lines, new workspaces and 720 square metres of completely new production space. The investment was completed in Q3 2023.

In January 2020, UPM announced that it would invest in a 220,000 tonnes next-generation biochemicals biorefinery in Leuna, Germany. The facility is scheduled to start up by the end of 2024, and the total investment estimate is EUR 1,180 million.

In January 2019, UPM announced that it would invest in the refurbishment of the Kuusankoski hydropower plant in Finland. The average annual production of the Kuusankoski plant is expected to increase from the current 180 GWh to 195 GWh. The investment was completed in Q1 2023.

In July 2019, UPM announced that it would invest in a 2.1 million tonne greenfield eucalyptus pulp mill near Paso de los Toros, central

Uruguay. Additionally, UPM will invest in port operations in Montevideo and in local investments outside the mill fence. The mill began its operations on 15 April 2023 after the final authorisation to operate was granted. The total investment was USD 3.47 billion.

Capitalised borrowing costs

In 2023, the borrowing costs capitalised as part of non-current assets amounted to EUR 38 million (20 million). Amortisation of capitalised borrowing costs was EUR 2 million (1 million) and the average interest rate used 3.00% (0.79%), which represents the average costs to finance the projects. In 2023, capitalised borrowing costs were mainly related to the construction of the new pulp mill in Uruguay and the biochemicals biorefinery in Leuna.

Government grants

In 2023, government grants recognised as deduction of non-current assets totalled to EUR 7 million (15 million). Grants relate mainly to the biochemicals biorefinery investment in Leuna.

Major capital commitments at 31 December

EURm	2023	2022
New biorefinery / Germany	363	257

Impairment losses

In 2023, impairment charges mainly relate to the closure of UPM Plattling mill in Germany.

In 2022, impairment charges relate to property, plant and equipment impacted by Russia's war in Ukraine. Due to the significant uncertainties related to operations in Russia and Ukraine, UPM recognised a write off of all property, plant and equipment as well as operating assets and uninsured receivables locating or relating to operations in these countries.

Accounting policies

Property, plant and equipment

Property, plant and equipment is stated at historical cost. Costs of assets of acquired in business combinations are determined at fair value at the acquisition date. Depreciation is calculated on a straightline basis and the carrying value is adjusted for impairment charges, if any. The carrying value of property, plant and equipment on the balance sheet represents the cost less accumulated depreciation and any impairment charges.

Borrowing costs incurred for the construction of any qualifying assets are capitalised during the period of time required to complete and prepare the asset for its intended use. Other borrowing costs are expensed.

Major renovations are capitalised and depreciated over the useful lives of the related asset. Ordinary expenses for repairs and maintenance are expensed as incurred.

Gains and losses on disposals are determined by comparing the disposal proceeds with the carrying amount and are included in other operating income and other operating expenses, respectively.

ASSESSED USEFUL LIVES	NUMBER OF YEARS
Land, not subject to depreciation	-
Buildings	20-50
Power plants	20-30
Heavy machinery	15-20
Light machinery	10-15
Equipment	5

Impairment testing

Carrying values of individual items included in property, plant and equipment are reviewed at each closing date to determine whether there is any indication of impairment. The carrying value is written down immediately to the asset's recoverable amount if the carrying value exceeds the estimated recoverable amount. Assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment. The recoverable amount is determined as the higher of an asset's fair value less costs to sell and its value in use. Value in use is determined by discounting future cash flows expected to be generated by the asset. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units).

Non-financial assets, other than goodwill, that have suffered impairment are reviewed for possible reversal of the impairment at each reporting date. Where an impairment loss is subsequently reversed, the carrying amount of the asset is increased to the revised estimate of its recoverable amount, but the increased carrying amount will not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset in prior years.



Key estimates and judgements

The estimations of useful lives, residual value as well as depreciation and amortisation methods require significant management judgement and are reviewed annually. Management makes estimates on the future cash flows expected to result from the use of the asset and its eventual disposal. While management believes that estimates of future cash flows are reasonable, different assumptions regarding such cash flows could materially affect valuations.

The long useful lives of assets, changes in estimated future sales prices of products, changes in product costs and changes in the discount rates used could lead to significant impairment charges.

Estimates are also made in an acquisition when determining the fair values and remaining useful lives of acquired intangible and tangible assets.

4.2 Forest assets

UPM is both a major forest owner and a purchaser of wood. The value of forest assets, i.e. standing trees, amounted to EUR 2,355 million (2,442 million) at the end of 2023.

EURm	2023	2022
Carrying value, at 1 January	2,442	2,328
Additions	50	79
Disposals	-10	-16
Wood harvested	-184	-143
Net change in fair value	81	153
Translation differences	-25	40
Carrying value, at 31 December	2,355	2,442

Change in fair value, change due to harvesting and gains or losses on sale of forest assets are recognised in the income statement as a net amount amounting to EUR -103 million (12 million) in 2023. In 2023, the change in fair value of forest assets in Finland was impacted by higher discount rate which was partly offset by higher stumpage price estimates.

Forest assets

EURm	2023	2022
Forest assets in Finland	1,621	1,702
Forest assets in Uruguay	720	724
Forest assets in United States	13	15
Carrying value, at 31 December	2,355	2,442

Forest land

Forest land is included in land and water areas within property, plant and equipment. » [Refer Note 4.1 Property, Plant and equipment](#). At the end of 2023, carrying value of own forest land amounted to EUR 715 million (EUR 736 million) and leased forest land EUR 231 million (EUR 243 million).

UPM's own and leased forest land areas are summarised in below table.

1,000 ha	FOREST LAND	PRO-DUCTIVE FOREST LAND	FORESTED LAND
Finland	523	430	421
Uruguay	304	182	177
Uruguay, leased land	170	138	131
United States	76	55	55
Total	1,073	805	784

Accounting policies

The group divides all its forest assets for accounting purposes into growing forests, which are recognised as forest assets at fair value less costs to sell, and land. Own land is stated at cost whereas leased land is valued at cost less accumulated depreciation.

Any changes in the fair value of the growing forests are recognised in the operating profit in the income statement. The fair value is calculated on the basis of discounted future expected cash flows considering existing, sustainable harvesting plans and assessments regarding growth, timber prices, harvesting and silviculture costs and selling expenses. The fair value of forest assets is a level 3 measure in terms of the fair value measurement hierarchy.

Key estimates and judgements

Fair valuation

The valuation process of forest assets is complex and requires management estimates and judgement on assumptions that have a significant impact on the valuation of the group's forest assets.

Main factors used in the fair valuation of forest assets are estimates for growth and wood harvested, stumpage prices and discount rates. Stumpage price forecasts are based on the current prices adjusted by the management's estimates for the full remaining productive lives of the trees, up to 100 years for forests in Finland and in the US and up to 25 years for plantations in Uruguay. The cash flows are adjusted by selling costs and costs related to future risks. Felling revenues and maintenance costs are estimated on the basis of actual costs and prices, taking into account the group's projection of future price and costs development. In addition, calculations take into account future forest growth and environmental restrictions.

The pre-tax discount rate used to determine the fair value of the Finnish forests in 2023 was 9.5% (8.0%) and for Uruguayan plantations 11.5% (11.0%). A decrease (increase) of one percentage point in discount rate would increase (decrease) the fair value of forest assets by approximately EUR 214 million (257 million).

4.3 Energy shareholdings

UPM is both a significant purchaser and producer of energy. The majority of electrical and thermal energy is consumed at the group's pulp and paper production. The production is mainly carried out by energy companies in which UPM has energy shareholdings. Energy shareholdings are unlisted equity investments. UPM does not have control or joint control of or significant influence in the said energy companies.

The value of energy shareholdings amounted to EUR 2,283 million (3,652 million) at the end of 2023. These energy companies supply electricity or both electricity and heat to their shareholders on a cost-price principle (Mankala-principle) which is widely applied in the Finnish energy industry. Under the Mankala-principle electricity and/or heat is supplied to the shareholders in proportion to their ownership and each shareholder is, pursuant to the specific stipulations of the respective articles of association, severally responsible for its respective share of the production costs of the energy company concerned.

In 2020, UPM issued a shareholder loan of EUR 47 million without a maturity date to PVO. Embedded into the loan terms is a right to issue new shares in the PVO B2 series against the remaining, unpaid nominal of the loan starting from 2021. The loan is valued at fair value and is taken into account as a part of the total fair valuation of the PVO B2 series valuation.

Energy shareholdings

	Number of shares	Group holding %	Carrying value, EURm	
			2023	2022
Pohjolan Voima Oyj, A series	8,176,191	61.24	507	584
Pohjolan Voima Oyj, B series	4,140,132	58.11	1,302	2,016
Pohjolan Voima Oyj, B2 series	2,869,819	51.22	0	454
Kemijoki Oy	179,189	7.33	345	442
Länsi-Suomen Voima Oy	10,220	51.10	124	150
Other	—	—	5	5
Carrying value, at 31 December			2,283	3,652

PVO's share capital is divided into different series of shares. The B and B2 series relate to PVO's shareholdings in Teollisuuden Voima Oyj (TVO). UPM has no direct shareholdings in TVO. TVO operates three nuclear power plants (Olkiluoto 1, Olkiluoto 2 and Olkiluoto 3) in Finland. The operation of a nuclear power plant is governed by international, European Union and local nuclear regulatory regimes. Pursuant to the Finnish Nuclear Liability Act, the operator of a nuclear facility has a strict third-party liability in relation to nuclear accidents. Shareholders of power companies that own and operate nuclear power plants are not subject to the liability under the Nuclear Liability Act. In Finland, the future costs of conditioning, storage and final disposal of spent fuel, management of low and intermediate level radioactive waste as well as nuclear power plant decommissioning are provided for by a state established fund (the Finnish State Nuclear Waste Management Fund). The contributions to the Fund are intended to be sufficient to cover estimated future costs. These contributions have been taken into consideration in the fair value of the related energy shareholdings.

Changes in energy shareholdings

EURm	2023	2022
Carrying value, at 1 January	3,652	2,579
Disposals	—	-2
Changes in fair value recognised in other comprehensive income	-1,369	1,074
Carrying value, at 31 December	2,283	3,652

Accounting policies

The group has made an irrevocable election to designate its energy shareholdings as equity instruments where changes in fair value are recognised through OCI. The shareholdings are not held for trading as the group has an intention to hold the investments for the long term. Purchases of energy shareholdings are initially and subsequently measured at fair value through other comprehensive income, net of tax if applicable, with only dividend income recognised through profit and loss. Initial fair value is acquisition cost including transaction costs. Upon disposal of the investment, the accumulated fair value changes in equity are not recycled to the income statement but instead, are reclassified from the fair value reserve to retained earnings.

The fair value of energy shareholdings is a level 3 measure in the fair value measurement hierarchy.

Key estimates and judgements

Fair valuation and sensitivity

Valuation of energy shareholdings requires management's assumptions and estimates of a number of factors that may differ from the actual outcome which could lead to significant adjustment to the carrying amount of the asset. Fair value is determined on a discounted cash flow basis and the main factors impacting the future cash flows include future electricity prices, price trends and discount rates. Changes in regulatory environment or taxation may also have an impact on the value of the energy generating assets. The valuation process is carried out by UPM Energy and the results are reviewed by management.

The electricity price estimate is based on future electricity forward prices and a simulation of the Finnish area electricity price. A change of 5% in the electricity price used in the model would change the total value of the assets by EUR 180 (390) million. The discount rate of 8.01% (7.13%) used in the valuation model is determined using the weighted average cost of capital method. A change of 0.5% percentage points in the discount rate would change the estimated fair value of the assets by approximately EUR 100 (230) million.

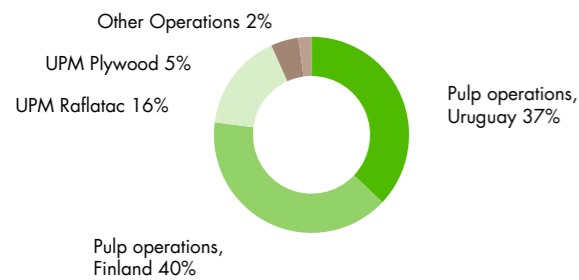
UPM's indirect share of the capacity of Olkiluoto 3 EPR is approximately 31%, through its PVO B2 shares, and on 16 April 2023 TVO announced that OL3 is ready. Test production has been completed and regular electricity production started on 16 April 2023.

The decrease in fair value during reporting period was mainly due to the decrease in electricity forward market prices and the increase in discount rate.

4.4 Goodwill and other intangible assets

The group's goodwill mainly relates to pulp operations in Finland and Uruguay belonging to UPM Fibres business area. In 2023, the group's goodwill and other intangible assets increased mainly as a result of the company acquisition of SunCoal Industries GmbH in UPM Biochemicals under Other Operations. [Refer Note 8.1 Business acquisitions and disposals](#) for further information. In 2022, the group's goodwill and other intangible assets increased mainly as a result of the company acquisition of AMC AG in UPM Raflatac business area.

Goodwill by business area 2023



Other intangible assets

EURm	SOFTWARE AND OTHER INTANGIBLE ASSETS		TOTAL
	INTANGIBLE RIGHTS		
2023			
Accumulated costs	463	765	1,228
Accumulated amortisation and impairments	-249	-520	-769
Carrying value, at 31 December	214	245	459
Carrying value, at 1 January	198	120	317
Additions	2	6	8
Companies acquired	18	4	22
Amortisation	-4	-25	-29
Reclassifications ²⁾	—	140	140
Carrying value, at 31 December	214	245	459
Emission rights, carrying value ¹⁾			256
Carrying value including emission rights, at 31 December			715
2022			
Accumulated costs	482	614	1,096
Accumulated amortisation and impairments	-285	-494	-779
Carrying value, at 31 December	198	120	317
Carrying value, at 1 January	198	64	262
Additions	3	11	14
Companies acquired	—	62	62
Amortisation	-3	-17	-21
Reclassifications	—	—	1
Carrying value, at 31 December	198	120	317
Emission rights, carrying value ¹⁾			235
Carrying value including emission rights, at 31 December			553

¹⁾ » [Refer Note 2.3 Operating expenses and other operating income](#), for further information on emission rights.

²⁾ Reclassifications include a reclass of EUR 140 million from property, plant and equipment, which relates to the start-up and final classification of assets in the Uruguay pulp mill investment » [Refer note 4.1 Property, plant and equipment](#).

Goodwill by business area

EURm	2023	2022
Pulp operations Uruguay	105	109
Pulp operations Finland	113	113
UPM Raflatac	46	46
UPM Plywood	13	13
Other operations	6	1
Total	283	282

Goodwill

EURm	2023	2022
Carrying value, at 1 January	282	237
Companies acquired	5	38
Translation differences	-4	6
Carrying value, at 31 December	283	282

Impairment testing

Impairment tests for goodwill and water rights with indefinite life were carried out in the fourth quarter 2023.

Water rights of hydropower plants belonging to UPM Energy and reported in intangible rights amounted EUR 189 million at the end of 2023 and 2022. The values of water rights were tested based on expected future cash flows of each separate hydro power plant.

Goodwill impairment tests were carried out for pulp operations in Finland and Uruguay, belonging to UPM Fibres business area, UPM Raflatac business area, UPM Plywood business area and UPM Biochemicals business in Other operations.

The 2023 impairment tests did not result in a recognition of any impairment.

The basis for valuation and key assumptions used in goodwill impairment testing are summarised in below table:

CASH GENERATING UNIT	BASIS OF VALUATION	PERIOD OF FORECAST	PRE-TAX DISCOUNT RATE	KEY ASSUMPTIONS
Pulp operations Finland	Value in use	10 years + terminal value	10.68% (2022: 10.84%)	Pulp price, wood costs
Pulp operations Uruguay	Value in use	10 years + terminal value	9.61% (2022: 9.30%)	Pulp price, wood costs
UPM Raflatac	Value in use	10 years + terminal value	10.05% (2022: 9.48%)	Product prices, cost development
UPM Plywood	Value in use	10 years + terminal value	12.06% (2022: 15.77%)	Product prices, cost development
UPM Biochemicals	Value in use	10 years + terminal value	10.20% (2022: n/a)	Product prices, cost development

Sensitivity analyses

The sensitivity analyses of goodwill impairment tests indicate that no reasonable change in key assumptions would result in recognition of impairment loss against goodwill. In pulp operations the recoverable amount is most sensitive to pulp sales prices and the cost of wood raw material.

Discount rate

The discount rate is estimated using the weighted average cost of capital (WACC) on the calculation date adjusted for risks specific to the business in question. The adjusted after-tax discount rate is translated to a pre-tax rate for each cash generating unit (CGU) based on the specific tax rate applicable to where the CGU operates.



Key estimates and judgements

The group's assessment of the carrying value of goodwill and indefinite life assets requires significant judgement.

While management believes that estimates of future cash flows are reasonable, different assumptions are subject to change as a result of changing economic and operational conditions. Actual cash flows could therefore vary from estimated discounted future cash flows and could result in changes in the recognition of impairment charges in future periods.

Future cash flows

The review of recoverable amount for goodwill and indefinite life assets is based on a calculation of value in use, using management projections of future cash flows. The most important assessments and assumptions needed in calculations are forecasts for future growth rates for the business in question, product prices, cost development and the discount rates applied. The group is using ten-year forecasts in calculations as the nature of the group's business is long-term, due to its capital intensity, and is exposed to cyclical changes. In estimates of product prices and cost development, forecasts prepared by management for the next three years and estimates made for the following seven years are taken into consideration. In addition, consideration is given to the investment decisions made by the group as well as the profitability programmes that the group has implemented and the views of knowledgeable industry experts on the long-term development of demand and prices. In the projection of cash flows UPM uses EBITDA adjusted with cash flows not captured within EBITDA, including working capital movements and capital expenditures. An assumed terminal value is based on a EBITDA multiples six times, except for UPM Biochemicals for which perpetuity value is determined using inflation based 2% growth rate.



Accounting policies

Goodwill

Goodwill arises in connection with business combinations where the consideration transferred exceeds the fair value of the acquired net assets. Goodwill is recognised at cost less accumulated impairment and is an intangible asset with an indefinite useful life. Goodwill is allocated to the cash generating units that are expected to benefit from the synergies from the business combination.

Intangible rights

Intangible rights include water rights of hydropower plants, patents, licences, intellectual property and similar rights. Water rights are deemed to have an indefinite useful life as the company has a contractual right to exploit water resources in the energy production of power plants.

The values of water rights are tested annually for impairment based on expected future cash flows of each separate hydropower plant. Other intangible rights are recognised at cost less accumulated amortisation and impairment. Amortisation is calculated using the straight-line method over their estimated useful lives ranging from 5 to 10 years.

Software and other intangible assets

Research expenditure is recognised as an expense as incurred. Costs incurred in acquiring software that will contribute to future period financial benefit are capitalised to software and systems. Other intangible assets are recognised at cost less accumulated amortisation and impairment. Amortisation is calculated using the straight-line method over their estimated useful lives ranging from 3 to 5 years.

Impairment testing

Goodwill and other intangible assets that are deemed to have an indefinite life are tested at least annually for impairment. For goodwill impairment testing purposes the group identifies its cash-generating units (CGUs), which is the smallest identifiable group of assets that generate cash inflows largely independent of the cash inflows of other assets or other groups of assets. Each CGU is no larger than a business area. The carrying amount for the CGU includes goodwill, non-current assets and working capital. If the balance sheet carrying amount of the CGU unit

exceeds its recoverable amount, an impairment loss is recognised. Impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to other assets of the unit. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Other intangible assets with indefinite useful lives are impaired if the recoverable amount of the asset is less than the carrying amount. The carrying amount of the asset is then reduced to the recoverable amount which is the higher of the asset's net selling price and its value in use.

4.5 Provisions

EURm	RESTRUCTURING	TERMINATION	ENVIRON- MENTAL	EMISSIONS	OTHER	TOTAL
2023						
Provisions at 1 January	14	22	29	53	15	134
Provisions made during the year	53	129	2	69	5	258
Provisions utilised during the year	-6	-30	-3	-65	-12	-116
Unused provisions reversed	-1	-4	-2	—	-2	-10
Reclassifications	-1	—	1	-1	—	-1
Provisions at 31 December	59	117	27	56	6	266
Non-current						170
Current						96
Total						266
2022						
Provisions at 1 January	24	36	30	39	26	155
Provisions made during the year	5	11	11	69	21	117
Provisions utilised during the year	-12	-23	-1	-54	-30	-121
Unused provisions reversed	-3	-2	-11	—	-2	-18
Reclassifications	—	—	—	—	—	—
Provisions at 31 December	14	22	29	53	15	134
Non-current						64
Current						70
Total						134

UPM has undergone several restructuring in recent years including mill closures and profit improvement programs. Restructuring provisions recognised include various restructuring activities including dismantling costs. Termination provisions include severance payments, unemployment compensations or other arrangements for employees leaving the company. In Finland termination provisions include also unemployment arrangements and disability pensions. Unemployment provisions in Finland are recognised 2–3 years before the granting and settlement of the compensation.

At 31 December 2023 and 2022, restructuring and termination provisions relate mainly to capacity closures and optimisation of operations in UPM Communication Papers business area. In 2023, additions to restructuring and termination provisions of EUR 143 million relate to closure of UPM Plattling paper mill and paper machine 6 at UPM Schongau paper mill. In 2022, there were no significant additions to restructuring and termination provisions.

The group recognises provisions for normal environmental remediation costs expected to be incurred in a future period upon a removal of non-current assets and restoring industrial landfills where a legal or constructive obligation exists. In 2022, the group recognised EUR 8 million additional environmental provision related to prior capacity closures in Finland.

Other provisions are mainly attributable to onerous contracts and will be incurred over a period longer than one year. In 2022, additions to other provisions include EUR 10 relating to tax dispute.

Provisions for emissions include liability to cover the obligation to return emission rights. The group possesses emission rights amounting to EUR 256 million (235 million) as intangible assets.

» Refer Note 2.3 Operating expenses and other operating income, for further information on emission rights.



Accounting policies

A provision is recognised when a present legal or constructive obligation exists as a result of a past event and it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are split between amounts expected to be settled within 12 months of the balance sheet date (current) and amounts expected to be settled later (non-current).

Restructuring and termination provisions

A restructuring provisions is recognised when a detailed plan for the implementation of the measures is complete and when the plan has been communicated to those who are affected. Employee termination provisions are recognised when the group has communicated the plan to the employees.

Environmental provisions

Environmental expenditures that relate to an existing condition caused by past operations that do not contribute to future earnings are expensed. The recognition of environmental provisions is based on current interpretations of environmental laws and regulations. Such provisions are recognised when the group has an obligation to dismantle and remove a facility or an item of plant and to restore the site on which it is located. The amount recognised is the present value of the estimated future expenditure determined in accordance with local conditions and requirements. A corresponding item of property, plant and equipment of an amount equivalent to the provision is also recognised and subsequently depreciated as part of the asset. Provisions do not include any third-party recoveries.

Emission provisions

Emission obligations are recognised in provisions based on realised emissions. The provision is measured at the carrying amounts of the corresponding emission rights held, which are recognised as intangible assets. In case of deficit in emission rights, the shortage is valued at the market value at the balance sheet date.



Key estimates and judgements

Environmental provisions

The estimates used in determining the provisions are based on the expenses incurred for similar activities in the current reporting period taking into account the effect of inflation, cost-base development and discounting. Because actual outflows can differ from estimates due to changes in laws, regulations, public expectations, technology, prices and conditions, and can take place many years in the future, the carrying amounts of provisions are regularly reviewed and adjusted to take into account of any such changes. The discount rate applied is reviewed annually.

The group aims to operate in compliance with regulations related to the treatment of waste water, air emissions and landfill sites. However, expected events during production processes and waste treatment could cause material losses and additional costs in the group's operations.

Legal contingencies

Management judgement is required in measurement and recognition of provisions related to pending litigation. Provisions are recorded when the group has a present legal or constructive obligation as a result of past event, an unfavourable outcome is probable and the amount of loss

can be reasonably estimated. Due to inherent uncertain nature of litigation, the actual losses may differ significantly from the originally estimated provision.

» Refer Note 9.2 Litigation for details of legal contingencies.

4.6 Working capital

The group defines operating working capital as inventories, trade receivables, trade payables and advances received which are presented separately below. The performance obligations related to advances received are typically fulfilled within 12 months of receipt of the advance. UPM is focusing on working capital efficiency and targeting a sustainable and permanent reduction in operating working capital.

Operating working capital

EURm	2023	2022
Inventories	1,948	2,289
Trade receivables	1,254	1,614
Trade payables	-1,297	-1,855
Advances received	-22	-23
Total	1,883	2,026

Inventories

EURm	2023	2022
Raw materials and consumables	1,027	1,128
Work in progress	6	11
Finished products and goods	885	1,116
Advance payments	31	34
Total	1,948	2,289

Trade and other receivables

EURm	2023	2022
Trade receivables		
Trade receivables	1,284	1,647
Loss allowance provision	-30	-32
Total trade receivables	1,254	1,614
Prepayments and accrued income		
Personnel expenses	2	2
Interest income	1	1
Energy and other excise taxes	11	15
Other items	118	158
Total prepayments and accrued income	133	176
Other receivables		
VAT and other indirect taxes receivable	155	326
Cash collaterals	187	500
Other receivables	53	80
Total other receivables	395	906
Total	1,782	2,696

Trade receivables ageing

EURm	2023			2022		
	TRADE RECEIVABLES	LOSS ALLOWANCE PROVISION	TRADE RECEIVABLES, NET OF PROVISION	TRADE RECEIVABLES	LOSS ALLOWANCE PROVISION	TRADE RECEIVABLES, NET OF PROVISION
Undue	1,165	-4	1,161	1,471	-1	1,470
Past due up to 30 days	82	-2	80	114	-1	114
Past due 31–90 days	8	-1	7	19	-3	16
Past due over 90 days	30	-23	6	42	-28	14
Total	1,284	-30	1,254	1,647	-32	1,614

Trade and other payables

EURm	2023	2022
Accrued expenses and deferred income		
Personnel expenses	181	184
Interest expenses	22	21
Indirect taxes	16	17
Customer rebates	94	130
Customer claims	6	7
Other items	148	169
Total accrued expenses and deferred income	467	528
Advances received	22	23
Trade payables	1,297	1,855
Other current liabilities	97	314
Total	1,883	2,720

 Operational credit risk

Operational credit risk is defined as the risk where UPM is not able to collect the payments for its receivables. The group has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Outstanding trade receivables, days of sales outstanding (DSO) and overdue trade receivables are followed on monthly basis. Potential concentrations of credit risk with respect to trade and other receivables are limited due to the large number and the geographic dispersion of customers. Customer credit limits are established and monitored, and ongoing evaluations of their financial condition is performed. The group has trade credit insurances to protect accounts receivables from significant credit losses. In certain market areas, including Asia and Northern Africa, measures to reduce credit risks include letters of credit, prepayments and bank guarantees. Maximum exposure to credit risk, without taking into account any credit enhancements, is the carrying amount of trade and other receivables.

UPM does not have significant concentration of customer credit risk. The ten largest customers accounted for approximately 19% (17%) of the trade receivables as at 31 December 2023 – i.e., approximately EUR 239 million (269 million).

In 2023, trade receivables amounting to EUR 5 million (2 million) were subject to permanent write-off and the loss was recognised under other costs and expenses. In accordance with the group's accounting policy, trade receivables are permanently written off when there is no reasonable expectation of recovery. In 2022, due to the significant uncertainties related to operations in Russia and Ukraine, the group increased the general provision for expected credit losses on trade

receivables, and impaired inventories and other receivables. As at 31 December 2022, the credit loss provision related to operations in Russia was EUR 8 million, impairment related to inventories EUR 10 million and impairment related to other receivables EUR 5 million. As a result of the sale of Russian operations in March 2023, there were no such credit loss provisions or impairments recognised as at 31 December 2023.

 Accounting policies

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined by the method most appropriate to the particular nature of inventory, the first-in, first-out (FIFO) or weighted average cost. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity) but excludes borrowing costs. Net realisable value is the estimated selling price in the ordinary course of business, less the costs of completion and selling expenses. If the net realisable value is lower than cost, a valuation allowance is established for inventory obsolescence.

Trade and other receivables

Trade receivables arising from selling goods and services in the normal course of business are recognised initially at transaction price and subsequently at amortised cost less loss allowance provision. No element of financing is deemed present as the sales are made with a credit term of 14–60 days, which is consistent with market practice.

The group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. The group has recognised two types of provisions for trade receivables – a general provision for lifetime expected credit losses and a provision for specified individual trade receivables, both of which are charged to the income statement. The group uses a provision matrix for estimating lifetime expected credit losses where trade receivables are segregated by businesses. The provision matrix is based on historical observed default rates, adjusted by forward looking information. It takes into account trade credit insurances, payment profile of customers and the factor that as debts get older they are more likely not to be paid. Additionally, the group recognises a provision individually for outstanding trade receivables where specific debtor information is available. In these cases there must be objective evidence that the group will not be able to collect all amounts due according to the original terms of the receivables.

Trade receivables are permanently written off when there is no reasonable expectation of recovery. The customer entering into

bankruptcy or liquidation proceedings or finalising such proceedings, or entering into debt-restructuring are considered indicators that the trade receivables are no longer expected to be recovered. Subsequent recoveries of amounts previously written off are credited to the income statement. The carrying amount of trade receivables approximates to their fair value due to the short-term nature of the receivables.

Other receivables consist mainly of cash collaterals pledged for commodity contracts and interest rate futures. The fair value equals to the amount of cash pledged as collateral. The cash collaterals cover the counterparties' losses in case UPM is unable to meet its obligations.

Trade and other payables

Trade payables arise from purchase of inventories, fixed assets and goods and services in the ordinary course of business from UPM's suppliers. Trade and other payables are classified as current liabilities if they are due to be settled within the normal operating cycle of the business or within 12 months from the balance sheet date. Trade payables are recognised initially at fair value and subsequently at amortised cost using the effective interest method. The carrying amount of trade payables approximates to their fair value due to the short-term nature of the payables.

The group is recognising refund liability for expected volume and other discounts arising from contracts with customers. Customer rebates include mainly volume discounts and are recognised as equal to an amount which is most likely to be paid to the customer. The carrying amount of expected customer rebates is updated at each reporting date, using the latest forecast data available.

Customer claims relating to quality complaints are accounted for as revenue related refund liability. Expected customer claims are estimated based on historical data and the amount of refund liability is updated at each reporting date. Customer claims and customer rebates are typically expected to realise within the next 12 months.

Advances received are recognised as contract liability until the performance obligation is fulfilled.

5. Capital structure

UPM has a strong cash flow and industry-leading balance sheet that mitigates risks and enables value-enhancing strategic actions.

Net debt	Free cash flow
EUR 2,432 m	EUR 1,193 m
(EUR 2374m)	(EUR -1077m)

5.1 Capital management


UPM's objective for managing capital comprising of net debt and total equity is to ensure maintenance of flexible capital structure to enable the ability to operate in capital markets and maintain optimal returns to shareholders. The group manages its financing activities, debt portfolio and financial resources via various policies that are designed to ensure optimum financing arrangements minimising simultaneously financial expenses and refinancing risk and optimising liquidity. Borrowing activities are centralised to the parent to the extent possible and cash resources are distributed within the group by the central treasury department.

UPM targets a net debt to EBITDA ratio of approximately 2 times or less.

UPM's capital

EURm	2023	2022
Equity attributable to owners of the parent company	11,161	12,502
Non-controlling interest	370	376
Total equity	11,531	12,879
Non-current debt	3,056	4,476
Current debt	327	558
Debt held for sale	2	0
Total debt	3,385	5,034
Total capitalisation	14,916	17,913
Total debt	3,385	5,034
Less: Interest-bearing financial assets and investment funds	906	2,660
Less: Interest-bearing financial assets held for sale	47	0
Net debt	2,432	2,374
Gearing ratio, % ¹⁾	21	18
Net debt to EBITDA ¹⁾	1.55	0.94

¹⁾ Refer » **Other financial information** on *Alternative performance measures*.

 Liquidity and refinancing risk

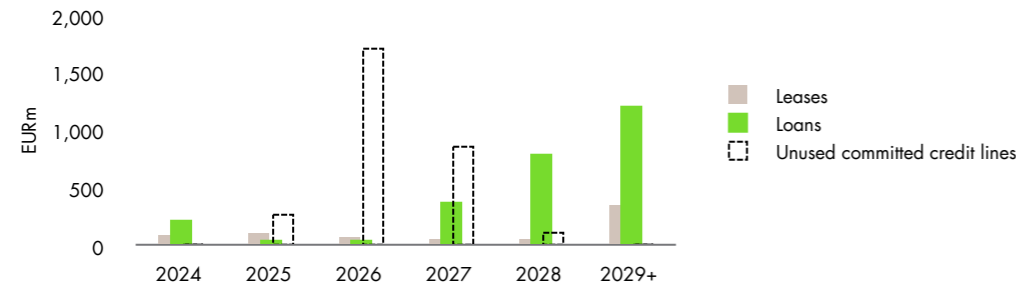
Under all circumstances, UPM seeks to maintain adequate liquidity, which depends on a number of factors, such as the availability of cash flows from operations and access to additional debt and equity financing. UPM aims to ensure sufficient liquidity by means of efficient cash management and restricting financial investments to investment types that can readily be converted into cash and by keeping a sufficient amount of unused committed credit lines or cash as a reserve. UPM aims to minimise refinancing risks by ensuring a balanced loan portfolio maturing schedule and sufficiently long maturities. The average loan maturity at 31 December 2023 was 5.1 years (4.6 years).

Liquidity and refinancing

EURm	2023	2022
Cash at bank	613	1,632
Cash equivalents	19	434
Cash classified as assets held for sale	39	0
Investment funds	1	1
Committed credit lines	2,909	5,709
of which used	–	-1,378
Loan commitments	–	-123
Used uncommitted credit lines	-182	-444
Long-term loan repayment cash flow	-114	-94
Debt held for sale	-2	0
Liquidity	3,284	5,738

Cash and cash equivalents comprise cash in hand, deposits held at banks and with original maturities of three months or less. Investment funds comprise fund investments with a redemption period of less than 12 months. Commercial papers and utilized bank overdrafts are included in used uncommitted credit lines and presented within current debt in the balance sheet. In 2023 or 2022, no impairment and no expected credit losses were recognised in profit or loss for loan receivables or cash and cash equivalents.

Repayments of debt and maturities of unused committed credit lines at the end of 2023



Maturity table of debt at the end of 2023

EURm	2024	2025	2026	2027	2028	2029+	TOTAL
Bonds	—	—	—	339	750	1,000	2,089
Loans from financial institutions	20	34	31	31	31	62	208
Lease liabilities	94	97	64	53	50	348	706
Other loans	—	2	—	—	—	135	137
Current loans and debt held for sale	183	—	—	—	—	—	183
Principal payments	297	133	95	423	830	1,545	3,323
Interest payments	75	66	62	61	34	111	409

The difference between the above nominal values and carrying value of total debt arise from fair value adjustments and discounting decreasing carrying value by EUR 45 million and other non-cash adjustments decreasing carrying value by EUR 20 million.

Maturity table of debt at the end of 2022

EURm	2023	2024	2025	2026	2027	2028+	TOTAL
Bonds	—	—	—	—	352	1,750	2,102
Loans from financial institutions	9	1,001	337	34	134	99	1,613
Lease liabilities	84	75	80	49	36	343	668
Other loans	1	—	—	—	—	151	152
Current loans	444	—	—	—	—	—	444
Principal payments	538	1,076	417	83	521	2,343	4,978
Interest payments	70	69	66	63	61	128	458

The difference between the above nominal values and carrying value of total debt arise from fair value adjustments decreasing carrying value by EUR 80 million and other non-cash adjustments decreasing carrying value by EUR 24 million.

Maturity table of derivatives included in net debt and guarantees at the end of 2023

EURm	2024	2025	2026	2027	2028	2029+	TOTAL
Net settled interest rate swaps							
Net inflow	3	7	9	9	—	—	27
Net outflow	-30	-19	-17	-18	-19	—	-104
Gross settled derivatives							
Gross currency swaps							
Total inflow	7	7	7	7	7	138	173
Total outflow	-7	-5	-5	-5	-5	-168	-195
Forward foreign exchange contracts							
Total inflow	1,000	9	—	—	—	—	1,009
Total outflow	-989	-9	—	—	—	—	-999
Guarantees							
	—	—	—	—	—	—	—

Maturity table of derivatives included in net debt and guarantees at the end of 2022

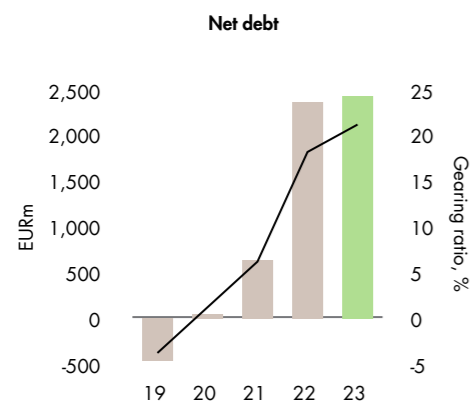
EURm	2023	2024	2025	2026	2027	2028+	TOTAL
Net settled interest rate swaps							
Net inflow	3	6	8	9	9	—	35
Net outflow	-24	-28	-26	-25	-25	-25	-153
Gross settled derivatives							
Gross currency swaps							
Total inflow	7	7	7	7	7	160	197
Total outflow	-7	-7	-6	-6	-6	-175	-208
Forward foreign exchange contracts							
Total inflow	625	—	—	—	—	—	625
Total outflow	-623	—	—	—	—	—	-623
Guarantees							
	2	—	—	—	—	—	2

5.2 Net debt

Net debt is defined as the total of current and non-current debt less cash and cash equivalents and interest-bearing current and non-current financial assets. In 2023, net debt increased by EUR 58 million. Net debt totalled EUR 2,432 million (2,374 million) at the end of 2023.

In 2020, UPM established a EUR 3 billion Euro Medium Term Note (EMTN) programme and launched a Green Finance Framework that aligns with the International Capital Markets Association (ICMA) Green Bond Principles. UPM has since issued three Green Bonds, totalling EUR 1,750 million. The independent second party opinion concerning the framework was provided by CICERO Shades of Green, and UPM's framework was rated with the highest-grade, CICERO Dark Green. In November 2023, UPM published an updated Green Finance Framework, which was reviewed by S&P Global Ratings. The new framework also received the highest "Dark Green" overall shading.

The proceeds from the Green Bonds have been allocated in accordance with the Green Finance Framework to eligible green projects and assets in the following categories: sustainable forest management, climate-positive products and solutions, and hydropower. The bonds do not have any financial covenants and all issued euro bonds are listed on the Irish Stock Exchange plc, trading as Euronext Dublin.



Net debt

EURm	2023	2022
Bonds	2,002	1,974
Loans from financial institutions	188	1,604
Lease liabilities	612	583
Derivatives	94	137
Other loans	160	179
Non-current debt	3,056	4,476
Repayments of non-current debt	20	9
Repayments of lease liabilities	94	84
Derivatives	33	24
Other liabilities	180	441
Current debt	327	558
Debt held for sale	2	0
Total debt	3,385	5,034
Loan receivables	4	4
Derivatives	51	61
Other receivables	17	19
Non-current interest-bearing assets	71	84
Loan receivables	1	0
Derivatives	14	9
Other receivables	187	500
Investment funds	1	1
Cash and cash equivalents	632	2,067
Current interest-bearing assets	835	2,576
Interest-bearing assets held for sale	47	0
Total interest-bearing assets	953	2,660
Net debt	2,432	2,374



Accounting policies

Debt

Debt comprising of bonds, bank and pension loans, lease liabilities and other loans is recognised initially at fair value, net of transaction costs and subsequently measured at amortised cost using the effective interest method. Any difference between proceeds (net of transaction costs) and the redemption value is recognised in the income statement over the estimated life of the borrowing. UPM classifies debt as non-current unless due for settlement within a year. Most of the debt is hedged in a fair value hedge relationship as described in » [Note 6.1 Financial risk management](#).

Change in net debt 2023

Reported in financing activities in cash flow statement

EURm	NON-CURRENT LOANS INCL. REPAYMENTS	LEASE LIABILITIES	CURRENT LOANS	NET DERIVATIVES	INVESTMENT FUNDS	DEBT HELD FOR SALE	OTHER FINANCIAL ASSETS	CASH AND CASH EQUIVALENTS	FINANCIAL ASSETS HELD FOR SALE	NET DEBT
Carrying value, at 1 January	3,766	668	441	90	-1	-	-523	-2,067	-	2,374
Change in net debt, cash										
Proceeds from non-current debt	100	-	-	-	-	-	-	-	-	100
Payments of non-current debt	-1,506	-	-	-	-	-	-	-	-	-1,506
Lease repayments	-	-99	-	-	-	-	-	-	-	-99
Change in current liabilities	-	-	-260	-	-	-	-	-	-	-260
Net cash flows from derivatives	-	-	-	6	-	-	-	-	-	6
Change in other financial assets in operating cash flow	-	-	-	-	-	-	311	-	-	311
Change in other financial assets in investing cash flow	-	-	-	-	-	-	-5	-	-	-5
Change in investment funds	-	-	-	-	-	-	-	-	-	-
Change in cash and cash equivalents	-	-	-	-	-	-	-	1,379	-	1,379
	-1,406	-99	-260	6	-	-	306	1,379	-	-74
Change in net debt, non-cash										
Companies acquired	2	-	-	-	-	-	-	-	-	2
Companies disposed	-	-2	-	-	-	-	-	-	-	-2
New contracts and subsequent additions	-	149	-	-	-	-	-	-	-	149
Lease liability reassessments	-	2	-	-	-	-	-	-	-	2
Fair value gains and losses	33	-	-	-34	-	-	-	-	-	-1
Exchange gains and losses	-27	-11	-	-	-	-	-	16	-	-22
Effective interest rate adjustment	4	-	-	-	-	-	-	-	-	4
Reclassifications to assets and liabilities held for sale	-1	-1	-	-	-	2	9	39	-47	-
	11	137	-	-34	-	2	8	55	-47	131
Carrying value, at 31 December	2,371	706	180	63	-1	2	-208	-632	-47	2,432

Change in net debt 2022

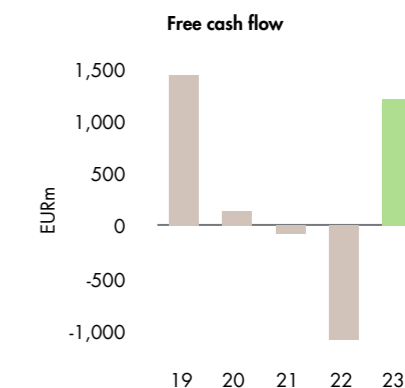
Reported in financing activities in cash flow statement

EURm	NON-CURRENT LOANS INCL. REPAYMENTS	LEASE LIABILITIES	CURRENT LOANS	NET DERIVATIVES	INVESTMENT FUNDS	OTHER FINANCIAL ASSETS	CASH AND CASH EQUIVALENTS	NET DEBT
Carrying value, at 1 January	2,046	574	2	-99	-100	-317	-1,460	647
Change in net debt, cash								
Proceeds from non-current debt	4,402	—	—	—	—	—	—	4,402
Payments of non-current debt	-2,550	—	—	—	—	—	—	-2,550
Lease repayments	—	-91	—	—	—	—	—	-91
Change in current liabilities	—	—	439	—	—	—	—	439
Net cash flows from derivatives	—	—	—	20	—	—	—	20
Transaction costs and discounts in operating cash flow	-5	—	—	—	—	—	—	-5
Change in other financial assets in operating cash flow	—	—	—	—	—	-208	—	-208
Change in other financial assets in investing cash flow	—	—	—	—	—	2	—	2
Change in investment funds	—	—	—	—	99	—	—	99
Change in cash and cash equivalents	—	—	—	—	—	—	-610	-610
	1,847	-91	439	20	99	-206	-610	1,499
Change in net debt, non-cash								
Companies acquired	22	—	—	—	—	—	—	22
New contracts and subsequent additions	—	171	—	—	—	—	—	171
Lease liability reassessments	—	-5	—	—	—	—	—	-5
Fair value gains and losses	-180	—	—	169	—	—	—	-11
Exchange gains and losses	28	18	—	—	—	—	3	49
Effective interest rate adjustment	3	—	—	—	—	—	—	3
	-127	184	—	169	—	—	3	229
Carrying value, at 31 December	3,766	668	441	90	-1	-523	-2,067	2,374

Free cash flow

Free cash flow is primarily a liquidity measure. It is an important indicator of UPM's overall operational performance as it reflects the cash generated from operations after investing activities.

EURm	2023	2022
Operating cash flow	2,269	508
Investing cash flow	-1,076	-1,585
Free cash flow	1,193	-1,077
Dividends paid to owners of the parent company	-799	-693
Dividends paid to non-controlling interests	-36	-27
Contributions paid by non-controlling interests	35	97
Other financing cash flow	-14	-9
Transaction costs and discounts in operating cash flow	0	5
Change in other financial assets in operating cash flow	-311	208
Change in other financial assets in investing cash flow	5	-2
Change in net debt, cash	-74	1,499
Change in net debt, non-cash	131	229
Change in net debt	58	1,728
Opening net debt	2,374	647
Closing net debt	2,432	2,374



Bonds

FIXED RATE PERIOD	INTEREST RATE, %	CURRENCY	NOMINAL VALUE ISSUED, MILLION	CARRYING VALUE 2023 EURm	CARRYING VALUE 2022 EURm
1997-2027	7.450	USD	375	361	378
2020-2028	0.125	EUR	750	650	605
2021-2031	0.500	EUR	500	495	494
2022-2029	2.250	EUR	500	496	496
Value, at 31 December				2,002	1,974
Current portion				—	—
Non-current portion				2,002	1,974

Leases

Leases of property, plant and equipment where UPM, as a lessee, obtains substantially all of the economic benefits from the use of the identified asset and where UPM has the right to direct the use of the identified asset, are classified as leases. Approximately 34% (34%) of leased assets recognised on the balance sheet consists of land areas in Uruguay, which the group uses for eucalyptus plantations. Approximately 11% of leased assets on the balance sheet consists of vessels for sea transportation in Europe. Approximately 9% (24%) of the leased assets on the balance sheet consist of five power plants. UPM uses the energy generated by these plants for its own production. In 2023, the decrease in carrying value is mainly attributable to the EUR 100 million impairment charge of a leased power plant related to the closure of UPM Plattling paper mill in Germany. In addition, the group has leased one waste water treatment plant as well as several warehouses, terminals, offices and railcars. UPM also leases some production machinery and equipment like forklifts and vehicles that are insignificant to the total leased assets portfolio.

In 2023 and 2022, additions to leased assets mainly relate to biochemicals refinery utilities in Leuna and new vessels for sea transportation in Europe. Impairment charges 2023 relate to the closure of the UPM Plattling paper mill and in 2022 to assets impacted by Russia's war in Ukraine. Due to the significant uncertainties related to operations in Russia and Ukraine, UPM recognised a write off of all leased assets locating or relating to operations in these countries.

In 2023, the total cash outflow for leased assets was EUR 99 (91) million. The expenses related to short-term leases recognised in the income statement in 2023 amounted to EUR 3 (3) million. The group did not have significant variable lease payments in 2023.

The lease commitments for leases not commenced at year-end 31 December 2023 totalled approximately EUR 176 (245) million, which are mostly related to a railway service agreement in Uruguay and a service agreement related waste water treatment in Leuna, Germany.

Changes in leased assets

	LAND AREAS	BUILDINGS	MACHINERY AND EQUIPMENT	OTHER LEASED ASSETS	ADVANCE PAYMENTS ¹⁾	TOTAL
2023						
Carrying value, at 1 January	283	247	169	1	13	713
New contracts and subsequent additions	9	40	95	4	13	161
Reassessments and disposals	7	4	-2	—	—	9
Depreciation	-17	-31	-39	—	—	-87
Impairments	—	-100	—	—	—	-100
Reclassifications	—	2	4	-4	-2	—
Reclassifications to assets held for sale	—	—	—	—	—	-1
Translation differences	-10	-1	-1	—	—	-11
Carrying value, at 31 December	272	161	226	1	24	683
2022						
Carrying value, at 1 January	252	264	80	8	4	608
New contracts and subsequent additions	24	18	127	—	8	178
Reassessments and disposals	8	—	-8	—	—	—
Depreciation	-16	-34	-29	—	—	-80
Impairments	—	-3	-7	-2	—	-12
Reclassifications	—	—	5	-5	—	-1
Translation differences	15	2	1	—	—	18
Carrying value, at 31 December	283	247	169	1	13	713

¹⁾ Advance payments for leases not commenced at the year end reporting date 31 December.



Accounting policies

Leases

The group as a lessee

UPM assesses whether a contract is or contains a lease at inception of the contract. This assessment involves the exercise of judgment about whether it depends on a specified asset, whether UPM obtains substantially all the economic benefits from the use of that asset, and whether UPM has the right to direct the use of the asset.

The group recognises a leased asset and a lease liability at the lease commencement date, except for short-term leases. UPM applies this to all asset classes. Short-term leases are leases that, at the commencement date, have a lease term of 12 months or less. A lease that contains a purchase option is not a short-term lease. UPM recognises lease payments of short-term leases as an expense on a straight-line basis over the lease term.

The lease term is determined as the non-cancellable period of the lease taking into consideration the options to extend and terminate if it is reasonably certain that the group will exercise the extension option or will not exercise the termination option. If the contract is for an indefinite period of time and the group and the lessor both have a right to terminate the contract within a short notice period (12 months or less) without a significant economic penalties and termination cash payments, the contract is considered to be a short-term.

The lease liability is recognised at the commencement date and measured at the present value of the lease payments to be paid during the lease term. The group uses, as a basis, discount rate implicit in the lease and if that rate cannot be readily determined, UPM uses incremental borrowing rate which comprises of currency and lease term-based reference rate and specific credit spread as well as other specific terms and conditions of a lease. Lease payments can include fixed payments, variable payments that depend on an index or rate and extension option payments or purchase options if it is reasonably certain

that the group will exercise them. The lease liability is subsequently measured at amortised cost using the effective interest rate method and remeasured (with corresponding adjustment to the related leased asset) when there is a change in future lease payments due to renegotiation, changes of an index or rate or reassessment of options.

Leased asset comprises the initial lease liability, initial direct costs and the obligations to refurbish the asset, less any incentives granted by the lessors. The leased asset is subsequently valued at cost less accumulated depreciation and impairment losses. Remeasurement takes place in case lease liability is remeasured and change in cash flows is based on contract terms that have been included in the original contract. The leased asset is depreciated over the shorter of the asset's useful life and the lease term. The leased asset is subject to testing for impairment if there is an indicator for impairment, as for own assets.

The group has elected to separate non-lease components such as service components and other variable components and account them for as expenses, if they can be separated from the leased asset. However, the group does not separate non-lease components from the lease contracts of company cars.

The group does not apply portfolio approach of leases with similar characteristics.

Leased assets are presented in the balance sheet as a separate financial statement line item. Lease liabilities are presented as part of non-current debt and current debt line items in the balance sheet. Lease liabilities are part of net debt calculation of the group. Short-term lease payments are reported as rents and lease expenses. Variable lease payments are recognised within the operating costs and expenses based on the nature of the payment. The interest expense on the lease liability is recognised as a component of finance costs in income statement. In cash flow statement, payments for the principal portion of the lease liability are recognised as financing cash flow while payments for interest portion of lease liability, short-term leases, and variable amounts not included in the measurement of the lease liability, are classified within operating cash flow.

The group as a lessor

At inception of a lease contract, the group makes an assessment whether the lease is a finance lease or an operating lease. If the lease transfers substantially all of the risks and rewards incidental to

ownership of the asset, it is considered to be a finance lease; if not, the lease is considered to be an operating lease. The group has only a minor amount of operating lease contracts, whereby the lease payments are recognised on a straight-line basis over the term of the lease.

5.3 Financial assets and liabilities by category

Financial assets and liabilities recognised in the balance sheet include cash and cash equivalents, loans and other financial receivables, investments in securities, trade receivables, trade payables, loans, bank overdrafts and derivatives.

Classification of financial assets into different measurement categories depends on the contractual cash flow characteristics and the business model for managing the financial asset. The measurement category of each financial asset is determined at inception. Financial

assets and liabilities are offset and the net amount reported in the balance sheet when there is a legally enforceable right in all circumstances to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously. Financial assets are derecognised when the rights to receive cash flows from the financial assets have expired or have been transferred, and the group has transferred substantially all the risks and rewards of ownership.

Financial assets and liabilities by category at the end of 2023

EURm	FAIR VALUE THROUGH PROFIT AND LOSS	EQUITY INSTRUMENTS AT FAIR VALUE THROUGH OCI	DERIVATIVES UNDER HEDGE ACCOUNTING	FINANCIAL ASSETS AND LIABILITIES AT AMORTISED COST	TOTAL
Energy shareholdings	—	2,283	—	—	2,283
Other non-current financial assets					
Loans and receivables	—	—	—	8	8
Derivatives	—	—	52	—	52
	—	—	52	8	60
Trade and other receivables	—	—	—	1,782	1,782
Other current financial assets					
Loans and receivables	—	—	—	1	1
Derivatives	19	—	43	—	62
Investment funds	1	—	—	—	1
	20	—	43	1	64
Financial assets classified as held for sale ²⁾	—	—	—	63	63
Cash and cash equivalents	—	—	—	632	632
Total financial assets	20	2,283	95	2,486	4,884
Non-current debt					
Interest-bearing liabilities	—	—	—	2,962	2,962
Derivatives	—	—	94	—	94
	—	—	94	2,962	3,056
Other non-current financial liabilities					
Other liabilities ¹⁾	—	—	—	155	155
Derivatives	—	—	2	—	2
	—	—	2	155	157
Current debt					
Interest-bearing liabilities	—	—	—	294	294
Derivatives	33	—	—	—	33
	33	—	—	294	327
Trade and other payables	—	—	—	1,883	1,883
Other current financial liabilities					
Derivatives	13	—	38	—	51
	13	—	38	—	51
Financial liabilities classified as held for sale ²⁾	—	—	—	20	20
Total financial liabilities	46	—	134	5,314	5,494

¹⁾ Consists mainly of non-current advances received and a put liability that is not estimated to mature within 12 months.

²⁾ Financial assets and liabilities classified as held for sale relate to agreement to sell 100% of the shares of the Austrian subsidiary UPM-Kymmene Austria GmbH. » Refer note 8.4 Assets held for sale.

Financial assets and liabilities by category at the end of 2022

EURm	FAIR VALUE THROUGH PROFIT AND LOSS	EQUITY INSTRUMENTS AT FAIR VALUE THROUGH OCI	DERIVATIVES UNDER HEDGE ACCOUNTING	FINANCIAL ASSETS AND LIABILITIES AT AMORTISED COST	TOTAL
Energy shareholdings	—	3,652	—	—	3,652
Other non-current financial assets					
Loans and receivables	—	—	—	8	8
Derivatives	—	—	62	—	63
	—	—	62	8	70
Trade and other receivables	—	—	—	2,696	2,696
Other current financial assets					
Loans and receivables	—	—	—	—	—
Derivatives	17	—	100	—	117
Investment funds	1	—	—	—	1
	18	—	100	—	118
Cash and cash equivalents	—	—	—	2,067	2,067
Total financial assets	18	3,652	162	4,771	8,602
Non-current debt					
Interest-bearing liabilities	—	—	—	4,340	4,340
Derivatives	—	—	137	—	137
	—	—	137	4,340	4,476
Other non-current financial liabilities					
Other liabilities ¹⁾	—	—	—	90	90
Derivatives	—	—	13	—	13
	—	—	13	90	103
Current debt					
Loans	—	—	—	534	534
Derivatives	24	—	—	—	24
	24	—	—	534	558
Trade and other payables	—	—	—	2,720	2,720
Other current financial liabilities					
Derivatives	14	—	88	—	102
	14	—	88	—	102
Total financial liabilities	37	—	238	7,683	7,959

¹⁾ Consists mainly of non-current advances received and a put liability that is not estimated to mature within 12 months.

The carrying amounts of financial assets and financial liabilities approximate their fair value except for interest-bearing liabilities in non-current debt. Their fair value amounted to EUR 2,873 million (3,607 million) at the end of 2023. For quoted bonds, the fair values are based on the quoted market value as of 31 December. At the end of 2023, all bonds were quoted.

For other non-current debt in interest-bearing liabilities fair values are estimated using the expected contractual future payments discounted at market interest rates and are categorised within level 2 of the fair value hierarchy.

» Refer Note 5.2 Net debt, for further information on net debt and bonds.

Fair value measurement hierarchy for financial assets and liabilities

EURm	2023				2022			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets								
Investment funds	—	1	—	1	—	1	—	1
Derivatives, non-qualifying hedges	—	19	—	19	—	17	—	17
Derivatives under hedge accounting	4	91	—	95	12	150	—	162
Energy shareholdings	—	—	2,283	2,283	—	—	3,652	3,652
Total	4	111	2,283	2,398	12	168	3,652	3,832
Financial liabilities								
Derivatives, non-qualifying hedges	—	46	—	46	—	37	—	37
Derivatives under hedge accounting	6	128	—	134	46	192	—	238
Total	6	174	—	180	46	229	—	275

There have been no transfers between levels in 2023 and 2022.



Accounting policies

Fair value through profit or loss

This category includes derivatives that do not qualify for hedge accounting and investments funds. They are measured at fair value and any gains or losses from subsequent measurement are recognised in the income statement.

Equity instruments at fair value through OCI

This category includes mainly UPM's energy shareholdings. These assets are measured at fair value through other comprehensive income. » Refer Note 4.3 Energy shareholdings.

Financial assets at amortised cost

This category comprises loan receivables with fixed or determinable payments that are not quoted in an active market, as well as trade and other receivables, and cash and cash equivalents. They are included in non-current assets unless they mature within 12 months of the balance sheet date. Cash and cash equivalents are always classified as current assets. Loan receivables that have a fixed maturity are measured at amortised cost using the effective interest method. Loan receivables without fixed maturity date are measured at amortised cost. As soon as a loan receivables or cash and cash equivalents are originated or purchased, a loss allowance for 12-month expected credit losses are recognised in profit or loss. If credit risk increases significantly, full lifetime expected credit losses are recognised in profit or loss. The credit loss model applied to trade receivables is described in » Note 4.6 Working capital.

Derivatives under hedge accounting

All derivatives are initially and continuously recognised at fair value in the balance sheet. Gains and losses on remeasurement of derivatives used for hedging purposes are recognised in accordance with the accounting principles described in » Note 6.2 Derivatives and hedge accounting.

Financial liabilities measured at amortised cost

This category includes debt, trade payables and other financial liabilities. » Refer Note 5.2 Net debt, for further information.

The different levels of fair value hierarchy used in fair value estimation are defined as follows:

Fair values under level 1

Quoted prices (unadjusted) traded in active markets for identical assets or liabilities. Derivatives include futures and commodity forwards traded in exchange.

Fair values under level 2

Observable inputs are used as basis for fair value calculations either directly (prices) or indirectly (derived from prices). If all significant inputs required to fair value an instrument are observable, the instrument is included in level 2. For investment funds, the valuation is based on quoted prices (unadjusted) for identical assets in markets that are not active. For derivatives, level 2 include OTC derivatives like forward foreign exchange contracts, foreign currency options, interest and currency swaps and commodity swaps. Specific valuation techniques used to value financial instruments at level 2 include the following methods:

Interest forward rate agreements (FRA) are fair valued based on quoted market rates on the balance sheet date. Forward foreign exchange contracts are fair valued based on the contract forward rates at the balance sheet date. Foreign currency options are fair valued based on quoted market rates and market volatility rates on the balance sheet date by using the Black&Scholes option valuation model. Interest and currency swap instruments are fair valued as present value of the estimated future cash flows based on observable yield curves. Commodity swaps are fair valued based on quoted forward prices on the balance sheet date.

An embedded derivative that is by nature a foreign currency forward contract is valued at market forward exchange rates and is included in level 2. Embedded derivatives are monitored by the group and the fair value changes are reported in other operating income in the income statement.

Fair values under level 3

Financial assets or liabilities of which fair values are not based on observable market data (that is, unobservable inputs) are classified under level 3. This category include UPM's energy shareholdings and forest assets. Fair valuations are performed at least quarterly by respective business areas or functions. Fair valuations are reviewed by the group finance management and overseen by the Audit Committee. » Refer Note 4.3 Energy shareholdings and » Note 4.2 Forest assets.

5.4 Financial income and expenses

EURm	2023	2022
Exchange rate gains and losses		
Derivatives	4	8
Exchange gains and losses on financial liabilities measured at amortised costs	29	-37
Exchange gains and losses on financial assets measured at amortised costs	-32	22
Other exchange rate gains and losses ¹⁾	-73	29
	-72	22
Fair value changes		
Fair value gains and losses on derivatives designated as fair value hedges	32	-177
Fair value adjustment of debt attributable to interest rate risk	-33	180
	-2	3
Total	-74	25
Interest and other finance income and costs, net		
Interest expense on lease liabilities	-21	-14
Interest expense on other financial liabilities measured at amortised cost	-38	-49
Interest income (expense) on derivatives	-28	26
Interest income on loans, receivables and cash	37	9
Other financial income and expenses, net	-20	-27
	-70	-55
Total	-144	-30

¹⁾Other exchange rate gains and losses include EUR 71 million exchange rate losses relating to the sale of Russian subsidiaries in 2023.

Net gains and losses on derivatives included in the operating profit

EURm	2023	2022
Cash flow hedges reclassified from hedging reserve	-117	-475
Non-qualifying hedges	4	3
Total	-113	-472

Foreign exchange gains and losses in the operating profit excluding non-qualifying hedges

EURm	2023	2022
Sales	61	-59
Other operating income	-35	-47
Total	26	-106

5.5 Share capital and reserves

The company has one series of shares and each share carries one vote. There are no specific terms related to the shares. At 31 December 2023, the number of the company's shares was 533,735,699. The shares do not have any nominal counter value. The shares are included within the book entry system for securities.

Share capital

	2023	2022
Number of shares (1,000)	533,736	533,736
Share capital, EURm	890	890

Treasury shares

At 31 December 2023, the company held 411,653 (411,653) of its own shares, 0.08% (0.08%) of the total number of shares.

Reserves

EURm	2023	2022
Fair value reserve	1,713	3,062
Hedging reserve	-88	-627
Share-based payments reserve	31	25
Total other reserves	1,655	2,460
Reserve for invested non-restricted equity	1,273	1,273
Translation reserve	347	449
Total reserves	3,276	4,182

Fair value reserve

This reserve represents the cumulative net change in the fair value of investments in equity securities comprising mainly of the fair value change of the energy shareholdings. Amounts are recycled only within equity upon the disposal of the asset.

Hedging reserve

This reserve comprises the cumulative net change in the fair value of the effective portion of cash flow hedging instruments related to hedged transactions that have not yet occurred and the cost of hedging when recognised in OCI. Amounts are recognised in profit or loss when the associated hedged transactions affect profit or loss or as part of the acquisition cost of property, plant and equipment. In 2023, a gain of EUR 0 million (5) was reclassified from the hedging reserve to other financial income and expenses as a result of discontinuation of hedge accounting.

Hedging reserve

EURm	CURRENCY CASH FLOW HEDGES	ELECTRICITY PURCHASE AND SALES HEDGES	COST OF HEDGING	TAX	TOTAL
2023					
Hedging reserve, at 1 January	42	-814	-11	155	-627
Amounts reclassified to profit and loss	-74	178	13	-23	94
Amounts reclassified to acquisition cost of a fixed assets	—	—	1	—	1
Change in fair value of hedging instruments recognised in OCI	44	516	-5	-111	444
Hedging reserve, at 31 December	13	-120	-3	21	-88

EURm	CURRENCY CASH FLOW HEDGES	ELECTRICITY PURCHASE AND SALES HEDGES	COST OF HEDGING	TAX	TOTAL
2022					
Hedging reserve, at 1 January	-32	-84	-1	22	-96
Amounts reclassified to profit and loss	65	401	4	-94	376
Amounts reclassified to acquisition cost of a fixed assets	24	—	1	—	25
Change in fair value of hedging instruments recognised in OCI	-15	-1,131	-15	228	-932
Hedging reserve, at 31 December	42	-814	-11	155	-627

Share-based payments reserve

The share-based payments reserve is used to recognise the fair value at the grant date of the share incentive plans, Performance Share Plan and Deferred Bonus Plan, over their vesting period.

Reserve for invested non-restricted equity

Reserve for invested non-restricted equity includes, under the Companies' Act, the exercise value of shareholders' investments in the company unless otherwise decided by the company.

Translation reserve

This reserve includes the foreign currency differences arising from the translation of foreign operations, and the effective result of transactions that hedge the group's net investments in foreign operations. There were no reclassifications from the translation reserve to profit or loss during the period resulting from inefficiency of net investment hedges.



Accounting policies

Transaction costs directly relating to the issue of new shares or share options are recognised, net of tax, in equity as a reduction in the proceeds. Where any group company purchases the parent company's shares (treasury shares), the consideration paid, including any directly attributable incremental costs (net of tax), is deducted from equity attributable to the owners of the parent company until the shares are cancelled or reissued. Where such shares are subsequently reissued, any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the owners of the parent company.

6. Risk management

6.1 Financial risk management

The objective of financial risk management is to protect the group from unfavourable changes in financial markets and thus help to secure profitability. The objectives and limits for financing activities are defined in the Group Treasury Policy approved by the Board of Directors. In financial risk management various financial instruments are used within the limits specified in the Group Treasury Policy. Only such instruments which market value and risk profile can be continuously and reliably monitored are used for this purpose.

Financing services are provided to the group entities and financial risk management carried out by the central treasury department, Treasury and Risk Management.

Foreign exchange risk

As a consequence of the global nature of its business, UPM is exposed to risks associated with changes in exchange rates, primarily with respect to USD, UYU, GBP and CNY. Foreign exchange risk arises from contracted and expected commercial future payment flows (transaction exposure), changes in value of recognised assets and liabilities denominated in foreign currency and changes in the value of assets and liabilities in foreign subsidiaries (translation exposure). The objective of foreign exchange risk management is to limit the uncertainty created by changes in foreign exchange rates on the future value of cash flows earnings and in the group's balance sheet. Changing exchange rates can also have indirect effects, such as change in relative competitiveness between currency regions.

Transaction exposure

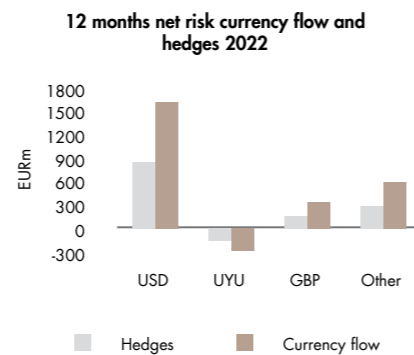
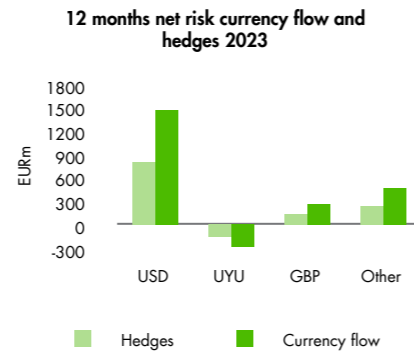
The group hedges transaction exposure related to highly probable future commercial foreign currency cash flows on a rolling basis over the next 12-month period based on forecasts by the respective business areas. Transaction risk arises from the changes in currency rates of highly probable transactions, which are expected to take place in currencies other than the functional currency of the entity. The group's policy is to hedge an average of 50% of its estimated net risk currency cash flow. Some highly probable cash flows have been hedged for longer than 12 months ahead while deviating from the risk neutral hedging level at the same time. At 31 December 2023, 53% (51%) of the forecast 12-month currency flow was hedged.

The group enters into external forward contracts, which are designated at group level as hedges of foreign exchange risk of specific future foreign currency flows. Cash flow hedge accounting is applied when possible. If hedge accounting is not possible, fair value changes of the hedging instrument are recognised through profit and loss immediately.

At the end of 2023, UPM's estimated net risk currency flow for the next 12 months was EUR 1,875 million (2,291 million).

The weighted hedging rate by currency against EUR were USD 1.09, UYU 43.02 and GBP 0.88.

In addition to commercial foreign currency flow, the group has hedged risk currency flow related to investments. Cash flow hedge accounting is applied. At the end of 2023 the hedged net risk currency flow was EUR 1 million (EUR 141 million).



Translation exposure

The group has several currency denominated assets and liabilities on its balance sheet such as foreign currency bonds, loans and deposits, group internal loans and cash in other currencies than functional currencies. UPM aims to fully hedge this balance sheet translation exposure, however, UPM might have unhedged balance sheet exposures within the limits set in group Treasury Policy.

At 31 December 2023 the unhedged balance sheet exposures in net of interest-bearing assets and liabilities amounted to EUR 9 million (8 million). Hedge accounting is not applied and all fair value changes of hedging instruments are recognised through profit and loss immediately.

The group has also accounts receivable and payable balances denominated in foreign currencies and UPM aims to fully hedge the net exposure in main currencies. The nominal values of the hedging instruments in net of accounts payable and receivable hedging were EUR 323 million (410 million). Hedge accounting is not applied and all fair value changes of hedging instruments are recognised through profit and loss immediately.

UPM's net investments in foreign subsidiaries are also subject to foreign currency translation differences. The exchange rate differences arising from translation of foreign subsidiaries are accumulated as a separate component of equity in the translation reserve relate mainly to USD, CNY and GBP. Currency exposure arising from the net investment in foreign subsidiaries is generally not hedged. However, at 31 December 2023, part of the foreign exchange risk associated with the net investments was hedged, major ones in China and Uruguay, and net investment hedge accounting has been applied. The average

weighted hedging rate of these hedges against EUR were China CNY 7.77 and Uruguay USD 1.10.

Derivatives used for hedging translation risks are external forward contracts, cross currency swaps and currency options.

Foreign exchange risk sensitivity

The following table illustrates the effect to profit before tax due to recognised balance sheet items in foreign currency and the effect to equity arising mainly from foreign currency forwards used to hedge foreign currency flows.

EURm	Profit before tax		Equity	
	2023	2022	2023	2022
EUR strengthens by 10%				
USD	2	1	89	128
UYU	—	—	-14	-15
GBP	—	—	13	17
CNY	1	1	10	10
EUR weakens by 10%				
USD	-2	-1	-89	-128
UYU	—	—	14	15
GBP	—	—	-13	-17
CNY	-1	-1	-10	-10

The following assumptions were made when calculating the sensitivity to changes in the foreign exchange risk:

- Major part of non-derivative financial instruments (such as cash and cash equivalents, trade receivables, debt and trade payables) are either directly denominated in the functional currency or are transferred to the functional currency through the use of derivatives i.e. the balance sheet position is close to zero. Exchange rate fluctuations have therefore minor or no effects on profit or loss.
- The table includes effect of foreign currency forward contracts that hedge commercial flows or investments or net investments in foreign subsidiaries, and which have an effective hedge relationship.
- The table includes also effect of foreign currency forward contracts that are not part of the effective cash flow hedge having an effect on profit.
- The table excludes effect of foreign currency denominated future cash flows.

Interest rate risk

The interest-bearing liabilities and assets expose the group to interest rate risk, namely repricing and fair value interest rate risk caused by interest rate movements. According to the Group Treasury Policy the interest rate exposure is defined as the difference in interest rate sensitivity between assets and liabilities compared to a benchmark portfolio with a 6-month duration. The total interest rate exposure is a net debt portfolio which includes all interest bearing assets and liabilities and derivatives that are used to hedge the aforementioned balance sheet items. The policy sets risk limits and allowed deviation from 6-month benchmark net debt duration level. UPM has decided to deviate from its policy benchmark and extend the duration of net debt. At 31 December 2023 the duration of net debt was 40 (45) months. The group uses interest rate derivatives, such as interest rate swaps,

interest rate futures and cross currency swaps, to change net debt duration.

The table below shows the nominal value of interest rate position exposed to interest rate risk in each significant currency. The position includes all cash balances, investment funds, interest bearing assets and liabilities and derivatives used to hedge these items. The positive/negative position indicates a net liability/asset position by currency and that the group is exposed to repricing and/or fair value interest risk by interest rate movements in that currency. Table excludes leasing transactions.

Nominal values of the group's net debt by currency including derivatives

EURbn	2023	2022
EUR	1.3	1.8
USD	0.9	0.5
CNY	-0.2	-0.2
Others	-0.2	-0.4
Total	1.8	1.8

Most of the interest rate derivatives hedging interest on long-term debt meet the requirement of fair value hedge accounting.

Interest rate risk sensitivity

The following table illustrates the effect to profit before tax mainly as a result of changes in interest expense on floating rate debt.

EURm	Profit before tax	
	2023	2022
Interest rate of net debt 100 basis points higher	-8	-24
Interest rate of net debt 100 basis points lower	8	24

The following assumptions were made when calculating the sensitivity to changes in interest rates:

- The variation of interest rate is assumed to be 100 basis points parallel shift in applicable interest rate curves.
- In the case of fair value hedges designated for hedging interest rate risk, the changes in the fair values of the hedged items and the hedging instruments attributable to the interest rate movements balance out almost completely in the income statement in the same period. However, the possible ineffectiveness has an effect on the profit of the year.
- Cash balances are excluded.
- Investment funds are excluded.
- Leasing transactions are excluded.
- Fixed rate debt that is measured at amortised cost and is not designated to fair value hedge relationship is not subject to interest rate risk sensitivity.
- Floating rate debt that are measured at amortised cost and not designated as hedged items are included in interest rate sensitivity analysis.
- Changes in the market interest rate of interest rate derivatives (interest rate futures, swaps and cross currency swaps) that are not designated as hedging instruments in hedge accounting affect the financial income or expenses (net gains or losses from remeasurement of the financial assets and liabilities to fair value) and are therefore included in the income-related sensitivity analysis.

Electricity price risk

UPM is hedging the price of electricity consumption and production. Electricity prices rely on weather, fossil fuel and emissions allowance prices as well as the balance of supply and demand. The group's sensitivity to electricity market price is dependent on the electricity production and consumption levels and the hedging levels. The inherent price risks arise from the daily sales and purchases of electricity from the power market with spot prices, and the hedging objective is to reduce the earnings volatility that arises from electricity prices.

UPM considers Nordic system and electricity price area differential (EPAD) for Finland products perfect hedges for corresponding electricity price risk components in Finland. The components of electricity price risk in the Nordic power market are hedged by entering into System and EPAD electricity derivative contracts, mostly Nasdaq Commodities futures and bilateral forwards. System and EPAD prices are considered as separately identifiable and reliably measurable risk components in electricity sales and purchase contracts as well as in the hedging instruments, as a quoted price is available. Fair value changes of designated system and EPAD derivatives are offsetting electricity sales and purchase price changes. The share of system component covers approximately 80-90% and the share of EPAD component covers 10-20% of the changes in electricity sales and purchase prices.

The electricity price risk in the Central European power market is hedged by entering into European Electricity Exchange futures. Products used for hedging hedge the entire price risk for the underlying price area.

The time frame hedged has historically been approximately rolling 5 years. Hedging level has been typically higher for the nearest years and lower for the latter years. Hedging level for a certain year has historically varied between 0-80%. UPM constantly updates its electricity production and consumption forecasts. Hedging level is calculated based on the most recent available information about the electricity production and consumption forecast.

The group applies cash flow hedge accounting for the hedging relationships when it hedges its electricity price risk. In small amounts, the group is also trading electricity forwards and futures. As well as hedging, proprietary trading risks are monitored on a daily basis. Value-At-Risk levels are set to limit the maximum risk at any given time. Cumulative maximum loss is limited by stop-loss limits.

Electricity derivatives price sensitivity

Sensitivity analysis for financial electricity derivatives is based on position at the end of financial year. Sensitivities change over time as the overall hedging and trading positions change. Underlying physical positions are not included in the sensitivity analysis. Sensitivity analysis is calculated separately for the hedge accounted and non-hedge accounted volumes. In the analysis it is assumed that forward quotation in Nasdaq Commodities and EEX would change EUR 5/MWh throughout the period UPM has derivatives.

EURm	EFFECT	2023	2022
+/- EUR 5/MWh in electricity forward quotations			
Effect on profit before tax	+/-	0.1	0.1
Effect on equity	+/-	51.0	93.0

6.2 Derivatives and hedge accounting

The group uses financial derivatives to manage currency, interest rate and commodity price risks.

» Refer Note 6.1 Financial risk management.

Accounting policies

All derivatives are initially and continuously recognised at fair value in the balance sheet. The fair value gain or loss is recognised through the income statement or other comprehensive income depending on whether the derivative is designated as a hedging instrument, and on the nature of the item being hedged. Certain derivatives are designated at inception either hedges of the fair value of recognised assets or liabilities (fair value hedge), hedges of highly probable forecasted transactions (cash flow hedge), or hedges of net investments in foreign subsidiaries with other than the EUR as their functional currency (net investment hedge). Derivative fair values on the balance sheet are classified as non-current when the remaining maturity is more than 12 months and as current when the remaining maturity is less than 12 months.

For hedge accounting purposes, UPM documents the relationship between the hedging instruments and hedged items, as well as the risk management objective and strategy for undertaking various hedge transactions at the inception date. This process includes linking all derivatives designated as hedges to specific assets and liabilities or forecast transactions. The group also documents its assessment, both at the hedge inception and on an on-going basis, as to whether the hedge is highly effective in offsetting changes in fair values or cash flows of the hedged items.

Certain derivatives, while considered to be economical hedges for UPM's financial risk management purposes, do not qualify for hedge accounting. Such derivatives are recognised at fair value through the income statement in other operating income or under financial items.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in other comprehensive income. Cost of hedging, meaning forward points of derivative forward contracts accounted as cash flow hedges, is recognised as a part of the hedging reserve. Amounts deferred in equity are transferred to the income statement and classified as income or expense in the same period as that in which the hedged item affects the income statement (for example, when the forecast external sale to the group that is hedged takes place).

When the forecasted transaction that is hedged results in the recognition of a fixed asset, gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the acquisition cost and depreciated over the useful lives of the assets.

When a hedging instrument expires or is sold, or when a hedge no longer meets hedge accounting criteria, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the committed or forecasted transaction is ultimately recognised in the income statement. However, if a forecasted transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately recognised to the income statement.

In currency cash flow hedging, the hedging instrument is made in the same currency as the hedged item and hence the fair value change of the hedging instrument are expected to effectively offset the fair value

changes generated by the hedged items. Thereby the hedge ratio between the instrument and the cash flow is 1:1. Hedge accounting ceases in the case that the forecasted cash flows are no longer expected to occur. The group has not recognised significant sources of ineffectiveness that can reasonably be expected to take place.

Also in electricity price hedges, hedge accounting ceases in the case that the forecasted cash flows are no longer expected to occur.

Hedges of net investments in foreign subsidiaries

The fair value changes of forward exchange contracts used in hedging net investments that reflect the change in spot exchange rates are recognised in other comprehensive income within translation reserve. Any gain or loss relating to the interest portion of forward exchange contracts is recognised immediately in the income statement under financial items. Gains and losses accumulated in equity are included in the income statement when the foreign operation is partially disposed of or sold.

The hedging instrument is always made in the same currency as the hedged investment, hence the hedge ratio in net investment hedging is 1:1. For hedging of net investments, hedge accounting ceases in the situation where the hedged item is disposed or sold during the duration of the hedging instrument.

Fair value hedges

The group applies fair value hedge accounting for hedging fixed interest risk on debt. Changes in the fair value of derivatives that are designated and qualify as fair value hedges and that are prospectively highly effective are recorded in the income statement under financial items, along with any changes in the fair value of the hedged asset or liabilities that are attributable to the hedged risk. The carrying amounts of hedged items and the fair values of hedging instruments are included in interest-bearing assets or liabilities.

Derivatives that are designated and qualify as fair value hedges mature at the same time as hedged items. If the hedge no longer meets

the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortised to profit or loss over the expected period to maturity.

Hedge accounting ceases in fair value hedge of fixed interest risk in case of early redemption of such debt, which is hedged under fair value hedge accounting. The group has not recognised significant sources of ineffectiveness that can reasonably be expected to take place.

Financial counterparty risk

The financial instruments the group has agreed with banks and financial institutions contain an element of risk of the counterparties being unable to meet their obligations. According to the Group Treasury Policy derivative instruments and investments of cash funds may be made only with counterparties meeting certain creditworthiness criteria. The group minimises counterparty risk also by using a number of major banks and financial institutions. Creditworthiness of counterparties is constantly monitored by Treasury and Risk Management. Due to the tight counterparty criteria, credit risk does not dominate the fair valuation of financial instruments.

Effects of IBOR reform

Main effect of the IBOR reform was limited to fair value hedge accounting of long-term fixed-rate debt for changes in fair value attributable to USD LIBOR, that was used as the benchmark interest rate as long as USD LIBOR rates were published. UPM adhered to ISDA 2020 IBOR Fallback Protocol in 2023 and fallback terms stated in the protocol were followed to convert USD LIBOR based transactions SOFR based transactions. In the fair value hedging relationships where IBOR reform had an effect, fair value for both the hedged item and hedging instrument is calculated with identical valuation curve. Therefore no ineffectiveness was recorded.

Net fair values of derivatives

EURm	Positive fair values	Negative fair values	Net fair values	Positive fair values	Negative fair values	Net fair values
	2023			2022		
Foreign exchange risk						
Forward foreign exchange contracts						
Cash flow hedges	25	-12	13	67	-34	33
Net investment hedge	3	-2	1	2	-2	—
Non-qualifying hedges	19	-5	14	16	-15	—
Cross currency swaps						
Non-qualifying hedges	—	-31	-31	—	-16	-16
Derivatives hedging foreign exchange risk	47	-50	-3	85	-68	18
Interest rate risk						
Interest rate swaps						
Fair value hedges	24	-94	-69	30	-137	-107
Non-qualifying hedges	—	-4	-4	—	-2	-2
Cross currency swaps						
Fair value hedges	27	—	27	31	—	31
Non-qualifying hedges	—	—	—	—	—	—
Derivatives hedging interest risk	51	-97	-46	62	-139	-77
Commodity risk						
Electricity sales						
Cash flow hedges	12	-26	-14	19	-54	-35
Non-qualifying hedges	—	—	—	—	-2	-2
Electricity purchase						
Cash flow hedges	4	—	4	12	-11	1
Other commodities						
Non-qualifying hedges	—	-6	-6	1	-1	—
Derivatives hedging commodity risk	16	-32	-16	32	-69	-36
Total	114	-180	-66	179	-275	-96

No derivatives are subject to offsetting in the group's financial statements. All derivatives are under ISDA or similar master netting agreement, which are applied on conditional terms, such as case of breach of contract or bankruptcy. The values of derivatives are recognised as gross on the balance sheet and a breakdown by category of instruments is presented in » [Note 5.3](#) Financial assets and liabilities by category.

Nominal amounts of derivatives

EURm	2023	2022
Interest rate futures	1,691	1,969
Interest rate swaps	1,089	1,102
Forward foreign exchange contracts	3,308	3,913
Currency options	—	—
Cross currency swaps	134	149
Commodity contracts	591	1,744

Cash collaterals pledged mainly for exchange traded contracts totalled EUR 185 (500) million of which EUR 184 (498) million relate to commodity contracts and EUR 1 (2) million to interest rate futures. The open market value of exchange traded contracts on the balance sheet is minor. Cash collaterals are included in Other receivables. » [Refer Note 4.6](#) Working capital.

Net fair values of derivatives calculated by counterparty

EURm	POSITIVE FAIR VALUES	NEGATIVE FAIR VALUES	NET FAIR VALUES
2023	55	-121	-66
2022	88	-185	-96

Timing of nominal amounts of derivatives 2023

EURm	Within 1 year	Between 1–5 years	Later than 5 years	Total
2023				
Foreign exchange risk				
Forward foreign exchange contracts				
Cash flow hedges	1,735	8	—	1,743
Net investment hedge	287	—	—	287
Non-qualifying hedges	1,263	15	—	1,278
Cross currency swaps				
Non-qualifying hedges	—	—	134	134
Interest rate risk				
Interest rate swaps				
Fair value hedges	—	1,089	—	1,089
Cross currency swaps				
Fair value hedges	—	—	134	134
Interest rate futures				
Non-qualifying hedges	1,691	—	—	1,691
Commodity risk				
Electricity sales				
Cash flow hedges	381	60	—	442
Non-qualifying hedges	—	—	—	—
Electricity purchase				
Cash flow hedges	35	2	—	37
Non-qualifying hedges	1	—	—	1
Other commodities				
Non-qualifying hedges	111	—	—	111

Timing of nominal amounts of derivatives 2022

EURm	Within 1 year	Between 1–5 years	Later than 5 years	Total
2022				
Foreign exchange risk				
Forward foreign exchange contracts				
Cash flow hedges	2,597	18	—	2,615
Net investment hedge	365	—	—	365
Non-qualifying hedges	928	5	—	934
Cross currency swaps				
Non-qualifying hedges	—	—	149	149
Interest rate risk				
Interest rate swaps				
Fair value hedges	—	352	750	1,102
Cross currency swaps				
Fair value hedges	—	—	149	149
Interest rate futures				
Non-qualifying hedges	1,969	—	—	1,969
Commodity risk				
Electricity sales				
Cash flow hedges	968	393	—	1,361
Non-qualifying hedges	5	1	—	6
Electricity purchase				
Cash flow hedges	244	40	—	283
Non-qualifying hedges	—	—	—	—
Other commodities				
Non-qualifying hedges	93	—	—	93

The nominals of cross currency swaps are included in both foreign exchange risk and interest rate risk.

7. Income tax

7.1 Tax on profit for the year

Income tax

In 2023, tax on profit for the year amounted to EUR 71 million (388 million). The effective tax rate was 15.2% (19.9%). In 2023 and 2022, the effective tax rate was affected by the income not subject to tax from subsidiaries operating in tax free zone and German tax rate that is higher than in Finland. In 2023, effective tax rate was significantly impacted by restructuring charges and impairment charges related to the closure of the UPM Plattling paper mill and paper machine 6 at the UPM Schongau mill in Germany.

Income tax

EURm	2023	2022
Current tax expense	161	344
Change in deferred taxes	-90	44
Total	71	388

Tax rate reconciliation

EURm	2023	2022
Profit before tax	464	1,944
Computed tax at Finnish statutory rate of 20%	93	389
Difference between Finnish and foreign rates	-28	62
Tax-exempt income	-51	-99
Non-deductible expenses	28	11
Withholding taxes	2	0
Tax loss with no tax benefit	45	19
Results of associates	0	-1
Change in tax legislation	—	1
Change in recoverability of deferred tax assets	-5	9
Utilisation of previously unrecognised tax losses	-3	-9
Other items	-9	7
Total income taxes	71	388
Effective tax rate, %	15.2 %	19.9 %

Accounting policies

The group's income tax expense comprises current tax and deferred tax. Current tax is calculated on the taxable result for the period based on the tax rules prevailing in the countries where the group operates and includes tax adjustments for previous periods and withholding taxes deducted at source on intra-group transactions. Tax expense is recognised in the income statement, unless it relates to items that have been recognised in equity or as part of other comprehensive income. In these instances, the related tax expense is also recognised in equity or other comprehensive income, respectively.



Key estimates and judgements

The group is subject to income taxes in numerous jurisdictions and the calculation of the group's tax expense and income tax liabilities involves a degree of estimation and judgement. Tax balances reflect a current understanding and interpretation of existing tax laws. Management periodically evaluates positions taken in tax returns with respect of situations in which applicable tax regulation is subject to interpretation and adjusts income tax liabilities where appropriate.

In December 2022, EU member states reached agreement to implement at EU level the minimum taxation component, known as Pillar Two, of the OECD's reform of international taxation. The entities in scope will be liable to pay a top-up tax for the difference between their GloBE effective tax rate per jurisdiction and the 15% minimum rate. UPM is within the scope of the OECD Pillar Two model rules. Pillar Two legislation was enacted in Finland in 2023, the jurisdiction in which UPM is incorporated, and will come into effect from 1 January 2024. Since the Pillar Two legislation was not effective at the reporting date, the group has no related current tax exposure. The group applies the exception to recognising and disclosing information about deferred tax assets and liabilities related to Pillar Two income taxes, as provided in the amendments to IAS 12 issued in May 2023. UPM is currently evaluating Pillar Two requirements and legislation in the jurisdictions that are likely to be impacted. For the annual reporting period to 31 December 2023, some of the jurisdictions have effective tax rate below 15% as calculated in accordance with IAS 12. However, the group might not be exposed to paying Pillar Two income taxes. This is due to the impact of specific adjustments in calculating the GloBE effective tax rates compared to those calculated in accordance with paragraph 86 of IAS 12 as well as substance based income exclusion which limits the tax base. Based on initial assessment, if the Pillar Two rules had been applicable in 2023, there would not have been any impact on group's income taxes. The assessment is based on the current information available and may change as more details and guidance on the implementation of the Pillar Two rules are released. The main jurisdiction for possible exposure to additional Pillar Two income taxes is Uruguay. The financial impact would depend on the results of the Uruguay subsidiaries and the decrease in the substance based income exclusion in accordance with the OECD Pillar Two model rules in subsequent years. Due to the complexities in applying the legislation and calculating GloBE income and additional guidance still being developed by OECD, the quantitative impact of the enacted or substantively enacted legislation is not yet reasonably estimable.

The law for a temporary profit tax on the electricity sector in Finland was enacted in March 2023. The additional tax to be applied is 30% of the companies' net profits generated from the electricity business in Finland in fiscal year 2023 exceeding 10% annual return on shareholder's equity of the electricity business (in addition to normal 20% corporate income tax rate on profits generated from electricity operations). UPM is in scope of temporary profit tax and the additional tax accrued amounted to EUR 1 million.

7.2 Deferred tax

EURm	2023	2022	2021
Deferred tax assets			
Intangible assets and property, plant and equipment	66	86	83
Inventories	77	86	53
Retirement benefit liabilities and provisions	94	88	127
Other temporary differences	175	475	269
Tax losses and tax credits carried forward	242	167	230
Offset against liabilities	-224	-417	-297
Total	431	485	466
Deferred tax liabilities			
Intangible assets and property, plant and equipment	-265	-335	-261
Forest assets	-412	-423	-398
Retirement benefit assets	—	-2	-17
Other temporary differences	-163	-294	-217
Offset against assets	224	417	297
Total	-616	-636	-596
Net deferred tax assets (liabilities)	-185	-151	-130

Tax charge to other comprehensive income

EURm	2023			2022		
	Before tax	Tax	After tax	Before tax	Tax	After tax
Actuarial gains and losses on defined benefit plans	-14	4	-10	249	-57	192
Energy shareholdings	-1,370	19	-1,351	1,074	-23	1,051
Translation differences	-120	—	-120	150	—	150
Cash flow hedges	673	-134	539	-665	134	-531
Net investment hedges	8	-2	6	-19	4	-15
Total	-823	-113	-936	789	58	847



Key estimates and judgements

Recognised deferred tax assets

The recognition of deferred tax assets requires management judgement as to whether it is probable that such balances will be utilised and/or reversed in the foreseeable future. At 31 December 2023, net operating loss carry-forwards for which the group has recognised a deferred tax asset amounted to EUR 841 million (584 million), of which EUR 772 million (514 million) was attributable to German subsidiaries. In Germany net operating loss carry-forwards do not expire. In other countries net operating loss carry-forwards expire at various dates and in varying amounts. Based on profit forecasts, it is probable that there will be sufficient future taxable profits available against which the tax losses and tax credits can be utilised.

The assumptions regarding future realisation of tax benefits, and therefore the recognition of deferred tax assets, may change due to future operating performance of the group, as well as other factors, some of which are outside of the control of the group.

Movements in deferred tax assets and liabilities

EURm	2023	2022
Carrying value, at 1 January	-151	-130
Charged to income statement	90	-44
Charged to other comprehensive income	-113	58
Companies acquired	-5	-26
Classified as held for sale	-13	—
Exchange rate adjustments	7	-9
Net deferred tax assets (liabilities)	-185	-151

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority.

Unrecognised deferred tax assets and liabilities

The net operating loss carry-forwards for which no deferred tax is recognised due to uncertainty of their utilisation amounted to EUR 902 million (890 million) in 2023. These net operating loss carry-forwards are mainly attributable to certain German and French subsidiaries and do not expire, as well as to certain Uruguayan subsidiaries which expire at different times by the end of 2028.

In addition, the group has not recognised deferred tax assets on loss carry-forwards relating to closed Miramichi paper mill due to only minor operations in Canada. These loss carry-forwards expire at different times by the end of 2029.

In Uruguay tax credits amounting to EUR 155 million have not been recognised due to uncertainty of their utilisation.

The group has not recognised deferred tax liability in respect of undistributed earnings of non-Finnish subsidiaries to the extent that it is probable that the temporary differences will not reverse in the foreseeable future. In addition, the group has not recognised deferred tax liability for the undistributed earnings of Finnish subsidiaries and associates as such earnings can be distributed without any tax consequences.



Accounting policies

Deferred tax is calculated based on temporary differences between the carrying amounts and the taxable values of assets and liabilities and for tax loss carry-forwards to the extent that it is probable that these can be utilised against future taxable profits.

Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference is controlled by the group and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets and liabilities are recognised net where there is a legal right to set-off and an intention to settle on a net basis.

8. Group structure

8.1 Business acquisitions and disposals

In 2023, UPM sold all its business operations in Russia to Gungnir Wooden Products Trading. The group also sold its holding in ASK Altpapier Sortierung Kinsau GmbH and its 20.00 % holding in the associated company Northern SC Paper Corporation. UPM made also several minor investments and sales of equity investments accounted at fair value through OCI.

In 2022, acquired AMC AG (Advanced Methods of Coating) and made a minor investment in ASK Altpapier Sortierung Kinsau GmbH by acquiring the full share capital of the company. UPM also sold its 33.09 % holding in the associated company Encore Ympäristöpalvelut Oy, and made several minor investments and disposals of equity investments accounted at fair value through OCI.

Business combinations

On 1 August 2023, it was announced that UPM Biochemicals has acquired SunCoal Industries GmbH. The acquisition enables UPM Biochemicals to strengthen the role as a leading supplier of sustainable, renewable functional fillers (RFF) to the rubber and plastic markets. UPM Biochemicals expects to realize significant synergies through the acquisition.

If the transaction had occurred on 1 January 2023, UPM's sales for January–December 2023 would have been EUR 10,461 million and profit for the period EUR 393 million. These amounts have been calculated using the group's accounting policies and by adjusting the results of the subsidiaries to reflect the amortisation that would have been charged assuming application of fair value adjustments to other intangible assets from 1 January 2023, together with the consequential tax effects.

Details of the purchase consideration, the net assets acquired and goodwill are as follows:

EURm	
Cash paid	21
Deferred consideration	2
Total purchase consideration	23

EURm	31 JUL 2023
Other intangible assets	22
Property, plant and equipment	1
Leased assets	0
Trade and other receivables	1
Cash and cash equivalents	1
Total assets	25
Deferred tax liabilities	5
Provisions	0
Non-current debt	0
Trade and other payables	1
Total liabilities	7
Net identifiable assets acquired	17
Goodwill arising from acquisition	5

Acquisition-related costs of EUR 1 million are included in other operating expenses and are reported as items affecting comparability in UPM Biochemicals business in Other Operations.

Information on the amounts of revenue and profit or loss of the acquiree since the acquisition date included in the consolidated income statement for the reporting period is not disclosed because it would be impracticable. The acquired business has been included in the group since 31 July 2023, and the effects of the revenues and profit or loss thereof are not considered material for disclosure purposes.

The fair values of net identifiable assets acquired are provisional and dependent on final fair valuations.

Transactions with non-controlling interests

In 2023, UPM did not have any change in its non-controlling interests.

In 2022, UPM acquired a holding with a minor non-controlling interest as a part of the acquisition of AMC AG.



Accounting policies

UPM consolidates acquired entities at the acquisition date which is when it gains control using the acquisition method. Consideration transferred is determined as the fair value of the assets transferred, the liabilities incurred and equity instruments issued including the fair value of a contingent consideration. Acquisition related transaction costs are expensed as incurred. Identifiable assets acquired and liabilities and contingent liabilities assumed are measured initially at their fair values at the acquisition date. The group measures any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets of the subsidiary acquired is recorded as goodwill.

The assets, liabilities, income and expenses of subsidiaries with non-controlling interests are consolidated line by line into the UPM consolidated financial statements. The proportion of the profit for the period, as well as the accumulated share of total equity belonging to non-controlling interests are presented separately in the consolidated income statement and consolidated balance sheet.

8.2 Principal subsidiaries and joint operations

SUBSIDIARIES	COUNTRY OF INCORPORATION	HOLDING %	2023	HOLDING %	2022
Blandin Paper Company	US	100.00	100.00	100.00	100.00
Blanvira S.A.	UY	91.00	91.00	91.00	91.00
Cuecar S.A.	UY	91.00	91.00	91.00	91.00
Forestal Oriental S.A.	UY	100.00	100.00	100.00	100.00
Gebr. Lang GmbH Papierfabrik	DE	100.00	100.00	100.00	100.00
LLC UPM Ukraine	UA	100.00	100.00	100.00	100.00
Nordland Papier GmbH	DE	100.00	100.00	100.00	100.00
NorService GmbH	DE	100.00	100.00	100.00	100.00
Nortrans Speditionsgesellschaft mbH	DE	100.00	100.00	100.00	100.00
OOO UPM-Kymmene	RU	—	—	100.00	100.00
OOO UPM-Kymmene Chudovo	RU	—	—	100.00	100.00
Print Inform Japan K.K.	JP	80.00	80.00	80.00	80.00
PT UPM Raflatac Indonesia	ID	100.00	100.00	100.00	100.00
Rhein Papier GmbH	DE	100.00	100.00	100.00	100.00
SERPRI S.A. Unipersonal	ES	100.00	100.00	100.00	100.00
Steyrer Mühl Sägewerksgesellschaft m.b.H. Nfg KG	AT	100.00	100.00	100.00	100.00
SunCoal Industries GmbH ¹⁾	DE	100.00	100.00	—	—
Tebetur S.A.	UY	91.00	91.00	91.00	91.00
Tile Forestal S.A.	UY	91.00	91.00	91.00	91.00
UPM (China) Co. Ltd	CN	100.00	100.00	100.00	100.00
UPM (Vietnam) Limited	VN	100.00	100.00	100.00	100.00
UPM AG	CH	100.00	100.00	100.00	100.00
UPM Asia Pacific Pte. Ltd.	SG	100.00	100.00	100.00	100.00
UPM Biochemicals GmbH	DE	100.00	100.00	100.00	100.00
UPM Biochemicals Sales GmbH	DE	100.00	100.00	100.00	100.00
UPM Biofuels S.A.	UY	100.00	100.00	100.00	100.00
UPM Communication Papers Oy	FI	100.00	100.00	100.00	100.00
UPM Energy Oy	FI	100.00	100.00	100.00	100.00
UPM France S.A.S.	FR	100.00	100.00	100.00	100.00
UPM Fray Bentos S.A.	UY	100.00	100.00	100.00	100.00
UPM GmbH	DE	100.00	100.00	100.00	100.00
UPM-Kymmene (Korea) Ltd	KO	100.00	100.00	100.00	100.00
UPM-Kymmene (UK) Ltd	GB	100.00	100.00	100.00	100.00
UPM-Kymmene Administrations GmbH & Co. KG	DE	100.00	100.00	100.00	100.00
UPM-Kymmene Austria GmbH	AT	100.00	100.00	100.00	100.00
UPM-Kymmene Grundbesitz GmbH & Co. KG	DE	100.00	100.00	100.00	100.00
UPM-Kymmene Inc.	US	100.00	100.00	100.00	100.00
UPM-Kymmene India Private Limited	IN	100.00	100.00	100.00	100.00
UPM-Kymmene Japan K.K.	JP	100.00	100.00	100.00	100.00
UPM-Kymmene Kagit Urunleri Sanayi ve Ticaret Ltd. Sti.	TR	100.00	100.00	100.00	100.00
UPM-Kymmene Otepää OÜ	EE	100.00	100.00	100.00	100.00
UPM-Kymmene S.r.l.	IT	100.00	100.00	100.00	100.00
UPM-Kymmene Seven Seas Oy	FI	100.00	100.00	100.00	100.00
UPM-Kymmene Sp.z o.o.	PL	100.00	100.00	100.00	100.00
UPM NV	BE	100.00	100.00	100.00	100.00
UPM OÜ	EE	100.00	100.00	100.00	100.00
UPM Plywood Oy	FI	100.00	100.00	100.00	100.00
UPM Pulp Sales Oy	FI	100.00	100.00	100.00	100.00
UPM Raflatac (China) Co., Ltd.	CN	100.00	100.00	100.00	100.00

SUBSIDIARIES	COUNTRY OF INCORPORATION	HOLDING %	2023	HOLDING %	2022
UPM Raflatac (S) Pte Ltd	SG		100.00		100.00
UPM Raflatac (UK) Ltd.	GB		100.00		100.00
UPM Raflatac Chile SpA	CL		100.00		100.00
UPM Raflatac Co. Ltd.	TH		100.00		100.00
UPM Raflatac GmbH	DE		100.00		100.00
UPM Raflatac Iberica S.A.	ES		100.00		100.00
UPM Raflatac Inc.	US		100.00		100.00
UPM Raflatac Mexico S.A. de C.V.	MX		100.00		100.00
UPM Raflatac NZ Limited	NZ		100.00		100.00
UPM Raflatac Oy	FI		100.00		100.00
UPM Raflatac Pty Ltd	AU		100.00		100.00
UPM Raflatac S.r.l.	AR		100.00		100.00
UPM Raflatac SAS	FR		100.00		100.00
UPM Raflatac Sdn.Bhd.	MY		100.00		100.00
UPM Raflatac South Africa (Pty) Ltd	ZA		100.00		100.00
UPM Raflatac Sp. z o.o.	PL		100.00		100.00
UPM S.A.	UY		91.00		91.00
UPM Sales GmbH	DE		100.00		100.00
UPM Sales Oy	FI		100.00		100.00
UPM Specialty Papers Oy	FI		100.00		100.00
UPM Sähkösiirto Oy	FI		100.00		100.00
UPM Trading (Shanghai) Co	CN		100.00		100.00
Uruwood S.A.	UY		93.55		93.25
Werla Insurance Company Ltd	MT		100.00		100.00

¹⁾ In 2023, UPM completed acquisition of SunCoal Industries GmbH. » Refer to note 8.1. Business acquisitions and disposals.

JOINT OPERATIONS	COUNTRY OF INCORPORATION	HOLDING %	2023	HOLDING %	2022
Oy Alholmens Kraft Ab (Pohjolan Voima Oyj, G series and direct ownership)	FI		50.00		50.00
EEVG Entsorgung- und Energieverwertungsgesellschaft m.b.H.	AT		50.00		50.00
Järvi-Suomen Voima Oy	FI		50.00		50.00
Kaukaan Voima Oy (Pohjolan Voima Oyj, G9 series)	FI		54.00		54.00
Kymin Voima Oy (Pohjolan Voima Oyj, G2 series)	FI		76.00		76.00
Madison Paper Industries	US		—		50.00
Rauman Biovoima Oy (Pohjolan Voima Oyj, G4 series)	FI		71.95		71.95

Non-controlling interests

UPM has non-controlling interests mainly in Uruguay companies. Summarised financial information of Uruguay subsidiaries that have non-controlling interests is presented in the following table. The amounts disclosed are before inter-company eliminations.

EURm	2023	2022
Profit for the period	60	339
Other comprehensive income for the period	3	2
Total comprehensive income for the period	63	341
Share of non-controlling interests	6	31
Non-current assets	3,449	3,100
Current assets	712	1,034
Non-current liabilities	121	29
Current liabilities	188	176
Net assets	3,852	3,929
Share of non-controlling interests	347	354

8.3 Related party transactions

The Board of Directors and the Group Executive Team

There have not been any material transactions between UPM and its members of the Board of Directors or the Group Executive Team (key management personnel) or persons closely associated with these members or organisations in which these individuals have control or significant influence. There are no loans granted to any members of the Board of Directors or the Group Executive Team at 31 December 2023 or 2022.

For information concerning shares held by members of the Board of Directors as well as remuneration to members of the Board of Directors and the Group Executive Team are disclosed in » Note 3.2. Key management personnel.

Associates and joint ventures

Austria Papier Recycling GmbH purchases recovered paper in Austria and L.C.I s.r.l. in Italy. ASD Altpapier Sortierung Dachau GmbH is a German recovered paper sorting company.

Transactions with associates and joint ventures are presented in the table below. The group has no individually material associates or joint ventures.

EURm	2023	2022
Dividends received	2	3
Purchases of raw materials and services	37	57
Loan receivables	5	5
Trade and other receivables	—	1
Trade and other payables	5	7

Subsidiaries and joint operations

» Refer Note 8.2 Principal subsidiaries and joint operations.

Pension Funds

In the UK, the single UPM Pension Scheme operates under a Trust which is independent from the group. The Trust consists of various defined benefit sections, all of which are closed to future accrual and one common defined contribution section which is open to all UPM employees in the UK. The group made contributions of EUR 0 million (6 million) to the defined benefit sections of the Scheme in 2023. The fair value of the UK defined benefit fund assets at 31 December 2023 was EUR 297 million (300 million), of which 16% was invested in equity instruments, 54% in debt instruments, 7% in property, 17% money market and 5% in other investments.

Previously part of group's Finnish employees were insured with TyEL foundation (UPM Sellutehtaiden eläkesäätiö) which was classified as a defined benefit plan. In 2022, TyEL foundation was replaced with defined contribution arrangement. The assets and liabilities of the plan were transferred to the insurance company and the group recognised EUR 69 million settlement loss in the income statement. The cash received on the settlement amounted to EUR 128 million.

8.4 Assets held for sale

Assets and liabilities classified as held for sale as at 31 December 2023 relate to agreement to sell 100% of the shares of Austrian subsidiary UPM-Kymmene Austria GmbH to the HEINZEL GROUP as announced in June 2022. The transaction comprises the UPM Steyrermühl site and the Steyrermühl sawmill operations. UPM Communication Papers ended the newspaper production at Steyrermühl paper mill in June 2023.

The following assets and liabilities were reclassified as held for sale in relation to the sale of UPM-Kymmene Austria GmbH as of 31 December 2023. On 2 January 2024, UPM announced that it has completed the sale.

EURm	2023
Other intangible assets	2
Property, plant and equipment	21
Leased assets	1
Other non-current financial assets	5
Deferred tax assets	13
Non-current assets	41
Inventories	7
Trade and other receivables	15
Other current financial assets	4
Cash and cash equivalents	39
Current assets	65
Assets classified as held for sale	106
Net retirement benefit liabilities	36
Provisions	1
Non-current debt	2
Non-current liabilities	39
Trade and other payables	17
Current liabilities	17
Liabilities classified as held for sale	56

No assets or liabilities were classified as held for sale at the end of 2022.

Accounting policies

Non-current assets (or disposal groups) are classified as assets held for sale and stated at the lower of carrying amount and fair value less costs to sell, if UPM will recover their carrying amount through a sale transaction which is considered highly probable. Non-current assets classified as held for sale, or included within a disposal group that is classified as held for sale, are not depreciated after the classification.

9. Unrecognised items

9.1 Commitments and contingencies

In the normal course of business, UPM enters into various agreements providing financial or performance assurance to third parties. The maximum amounts of future payments for which UPM is liable is disclosed in the table below under "Other commitments". Property under mortgages given as collateral for own commitments include property, plant and equipment, industrial estates and forest land.

EURm	2023	2022
On behalf of others		
Guarantees	–	2
Other own commitments		
Leasing commitments for the next 12 months in accordance with IFRS 16	2	2
Other commitments	99	219
Total	101	223

The lease commitments for leases not commenced at the end of 2023 totals approximately EUR 176 million, which are mostly related to a railway service agreement in Uruguay and a service agreement related to waste water treatment in Leuna, Germany. Lease commitments at the end of 2022 amounted to EUR 245 million.

The decrease in other commitments during the period is mainly due to the PVO loan commitment, which matured at the end of 2023.

9.2 Litigation

Contingent liabilities

The group is defendant or plaintiff in a number of legal proceedings incidental to its operations. These lawsuits primarily involve claims arising from commercial law issues.

Group companies

The Group's management is not aware of any significant litigation at the end of 2023.

In October 2021, the European Commission conducted an unannounced inspection at UPM's premises. According to the Commission's press release on 12 October 2021, the Commission had concerns that the inspected companies in the wood pulp sector may have violated EU antitrust rules that prohibit cartels and restrictive business practices. On 15 June 2023 the Commission published a release that it had decided to close its antitrust investigation in the wood pulp sector. According to the Commission's release, it had decided to close the investigation after a thorough analysis and careful assessment of all the evidence gathered.

9.3 Events after the balance sheet date

On 2 January 2024, UPM announced that it has completed the sale of Steyrmühl site and all related assets to HEINZEL GROUP, thereby closing the transaction announced in June 2022.

10. Other notes

10.1 Forthcoming new standards, amendments and accounting policy changes

Certain new accounting standard amendments and interpretations have been published that come into effect only after the reporting period started on 1 January 2023. These standards and amendments are not expected to have a material impact on the group in the current or future reporting periods and on foreseeable future transactions and have not been early adopted.

Parent company accounts

(Finnish Accounting Standards, FAS)

Income statement

EURm	NOTE	2023	2022
Sales	1	2,585	2,414
Change in inventories of finished goods and work in progress		10	15
Production for own use		1	2
Other operating income	2	103	81
Materials and services			
Raw materials and consumables purchased		-1,935	-1,449
Change in inventories		-43	-98
External charges		-8	-6
		-1,987	-1,553
Personnel expenses			
Salaries and fees		-198	-194
Indirect employee costs			
Pension costs		-36	95
Other indirect employee costs		-7	-7
	3	-241	-106
Depreciation, amortisation and impairment charges			
Depreciation and amortisation		-112	-117
	4	-112	-117
Other operating expenses	5	-349	-289
Operating profit (loss)		10	446
Financial income and expenses			
Income from non-current assets			
Dividend income from group companies		738	293
Interest income from group companies		5	16
Other interest and financial income			
Other interest income from group companies		150	63
Other interest income from other companies		30	6
Other financial income from group companies		1	77
Other financial income from other companies		974	0
Impairment charges and reversals on investments		9	-62
Interest and other financial expenses			
Interest expenses to group companies		-133	-35
Interest expenses to other companies		-93	-43
Other financial expenses to group companies		-32	-3
Other financial expenses to other companies		-17	-858
		1,632	-547
Profit (loss) before closing entries and tax		1,642	-101
Closing entries			
Depreciation difference		31	19
Group contributions received		37	0
Group contributions granted		-37	-24
		31	-5
Income taxes	6	1	-84
Profit (Loss) for the period		1,675	-190

Balance sheet

EURm	NOTE	2023	2022
ASSETS			
Non-current assets			
Intangible assets			
Intangible rights		5	5
Other intangible assets		27	32
Advance payments		26	22
	7	58	60
Tangible assets			
Land and water areas		748	746
Buildings		166	178
Machinery and equipment		414	453
Other tangible assets		18	19
Advance payments and construction in progress		26	21
	8	1,372	1,418
Investments			
Holdings in group companies		6,587	5,834
Holdings in participating interest companies		5	5
Other shares and holdings		3	3
Receivables from group companies		993	930
Receivables from participating interest companies		3	3
	9	7,590	6,774
Total non-current assets		9,019	8,252
Current assets			
Inventories			
Raw materials and consumables		229	272
Finished products and goods		43	33
Advance payments		30	32
		302	337
Receivables			
Current receivables			
Trade receivables		37	57
Receivables from group companies		1,786	2,581
Receivables from participating interest companies		13	17
Other current receivables		182	490
Prepayments and accrued income		12	23
	10	2,029	3,167
Other current financial assets		1	1
Cash and cash equivalents		500	1,840
Total current assets		2,832	5,345
Assets		11,852	13,598

EURm	NOTE	2023	2022
EQUITY AND LIABILITIES			
Equity			
Share capital		890	890
Revaluation reserve		140	140
Reserve for invested non-restricted equity		1,273	1,273
Retained earnings		342	1,333
Profit (Loss) for the period		1,675	-190
Total equity	11	4,319	3,445
Accumulated depreciation difference		367	398
Provisions			
Termination provisions		1	2
Other provisions		166	297
	12	167	299
LIABILITIES			
Non-current liabilities			
Bonds		2,089	2,102
Loans from financial institutions		185	1,578
Payables to group companies		285	160
Other non-current liabilities		134	149
	13	2,693	3,988
Current liabilities			
Loans from financial institutions		15	0
Advances received		0	1
Trade payables		341	454
Payables to group companies		3,654	4,334
Payables to participating interest companies		6	3
Other current liabilities		201	573
Accrued expenses and deferred income		88	103
	14	4,305	5,467
Total liabilities		6,998	9,455
Equity and liabilities		11,852	13,598

Cash flow statement

EURm	2023	2022
Cash flows from operating activities		
Profit before closing entries and tax	1,642	-101
Financial income and expenses	-1,632	547
Adjustments to operating profit ¹⁾	48	231
Change in working capital ²⁾	983	-1,156
Interest received	185	87
Interest paid	-228	-69
Dividends received	738	293
Other financial items	861	-758
Income taxes paid ³⁾	8	-84
Operating cash flow	2,605	-1,010
Cash flows from investing activities		
Investments in tangible and intangible assets	-69	-79
Investments in shares and holdings	-812	-1,285
Proceeds from sale of intangible and tangible assets	12	17
Proceeds from disposal of shares and holdings	68	1
Change in other non-current receivables	-63	-143
Investing cash flow	-865	-1,490
Cash flows from financing activities		
Proceeds from non-current liabilities	325	4,493
Payments of non-current liabilities	-1,578	-2,627
Change in current liabilities	-1,004	1,794
Dividends paid	-800	-693
Group contributions, net	-24	-19
Other items	-1	97
Financing cash flow	-3,081	3,044
Cash and cash equivalents at beginning of period	1,840	1,296
Change in cash and cash equivalents	-1,340	545
Cash and cash equivalents at end of period	500	1,840

Notes to cash flow statement

¹⁾ Adjustments to operating profit

EURm	2023	2022
Depreciation, amortisation and impairment charges	113	181
Capital gains and losses on sale of non-current assets	-14	-13
Change in provisions	-51	63
Total	48	231

²⁾ Change in working capital

EURm	2023	2022
Inventories	34	-121
Current receivables	1,133	-1,143
Current non-interest-bearing liabilities	-184	108
Total	983	-1,156

³⁾ Income taxes related to sale of assets are presented in investing cash flow.

Notes to the parent company financial statements

Accounting policies

The financial statements of the parent company are prepared in accordance with Finnish Accounting Standards, FAS. The main differences in accounting policies of the group and the parent company relate to the measurement of financial derivatives and forest assets and recognition of defined benefit obligations, share-based payments, lease agreements and deferred income taxes.

The financial statements are presented in millions of euros and rounded and therefore the sum of individual figures might deviate from the presented total figure.

Foreign currency translation

Receivables and liabilities denominated in foreign currencies outstanding on the balance sheet date and other commitments are translated into euro currency using the balance sheet date exchange rate. Exchange rate differences arising from the valuation of trade receivables are recognised in sales and exchange rate differences on trade payables in purchases. Exchange differences arising from the measurement of other receivables and liabilities are recognised in financial items.

Tangible and intangible assets

Tangible and intangible assets are stated at cost less accumulated depreciation and amortisation according to plan and impairments. Emission rights are recognised using net approach. Depreciation and amortization according to plan is recorded on a straight-line basis over the expected useful lives of the assets as follows:

Land and water areas, no depreciation	
Intangible assets	5–10 years
Buildings	20–50 years
Light machinery and equipment	5–10 years
Heavy machinery	15–20 years
Power plants	20–30 years
Other tangible assets	5–20 years

Forest assets are recognised as tangible assets within land and water areas at historical cost and revaluation. No systematic depreciation or changes in value due to felling is recognised.

Investments

Investments are stated at cost less impairments.

Inventories

Inventories are stated at cost or the lower of replacement cost and probable selling price. Costs are measured using FIFO-method. In addition to variable costs, the cost of inventories includes a portion of the fixed costs of acquisition and manufacturing.

Revaluations

The balance sheet value of land includes revaluations. No new revaluations are made and the balance sheet value of land is considered to be below their fair value.

Leases

Lease payments of lease contracts are recognised in other operating expenses over the lease term. Lease payments due in future years under lease contracts are presented as off-balance sheet items.

Provisions

Provisions include foreseeable future expenses and losses to which the company is committed, the realization of which is probable and the amount can be reliably estimated, e.g. pension and environmental liabilities and termination and restructuring costs. Changes in provisions are recognised in income statement within particular cost items.

Sales

Sales include sales revenue from actual operations less indirect taxes, discounts, claims and exchange rate differences on trade receivables.

Research and development costs

Research and development costs are expensed in the year in which they are incurred.

Pensions

In Finland employers are obliged to insure their employees for statutory benefits, as determined in Employee's Pension Act (TyEL). The mandatory pensions are arranged mainly through pension insurance companies. Contributions to pension insurance companies are charged to the income statement in the period to which the contributions relate.

Share-based payments

Share based compensation is recognized as an expense in the income statement over the earnings period and the related liability is booked to the balance sheet.

Closing entries

Parent company closing entries consists of the change in the depreciation difference and group contributions granted to group companies. The accumulated depreciation difference in the parent company has not been divided into equity and deferred tax liability.

Income taxes

Income taxes presented in the income statement consist of accrued taxes for the financial year and tax adjustments for prior years. The parent company has not recognised deferred tax assets and liabilities in the balance sheet, but presents the information in the notes.

Derivatives

Realised results of derivative contracts and negative fair value of open derivative contracts are recognised in the income statement. Negative fair value of open derivative contracts that are not settled in cash is recognised as a provision in the balance sheet. Hedge accounting is not applied. Income and expenses of balance sheet hedging and forward foreign exchange contracts hedging commercial foreign currency flow of all group companies are recognised in financial items. Income and expenses of commodity derivatives are recognised in operating profit. Income and expenses of commodity derivative contracts of group companies are recognized in financial items.

Majority of financial derivative contracts of the group are made by the parent company. All contracts are made with external counterparties

except internal derivatives which are used to manage foreign currency and interest rate exposure.

Financial risks, fair values and maturities of the group external derivatives are disclosed in » [Note 6.1](#) Financial risk management and in » [Note 6.2](#) Derivatives and hedge accounting.

1. Sales

Sales by business area

EURm	2023	2022
UPM Fibres	2,075	1,973
Other operations	509	440
Total	2,585	2,414

Sales by destination

EURm	2023	2022
Finland	2,515	2,342
Other EU countries	45	46
Other countries	24	26
Total	2,585	2,414

2. Other operating income

EURm	2023	2022
Gains on sale of non-current assets	5	13
Rental income	6	9
Other	92	59
Total	103	81

3. Personnel expenses

EURm	2023	2022
Salaries and fees of the President and CEO, and members of the Board of Directors ¹⁾	7	7
Other salaries and fees	191	187
Pension costs ²⁾	36	-95
Other indirect employee costs	7	7
Total	241	106

¹⁾ » [Refer Note 3.2](#) Key management personnel

²⁾ Pension expenses in 2022 include pension fund excess return of EUR 123 million from UPM Sellutehtaiden eläkesäätii.

Personnel

	2023	2022
Total average	2,932	2,765

4. Depreciation, amortisation and impairment charges

EURm	2023	2022
Intangible rights	2	2
Other intangible assets	13	13
Buildings	16	17
Machinery and equipment	79	82
Other tangible assets	3	3
Total	112	117

5. Other operating expenses

EURm	2023	2022
Rents and lease expenses	15	13
Maintenance expenses	146	118
Other operating expenses ¹⁾	188	159
Total	349	289

¹⁾ The research and development costs in operating expenses were EUR 32 million (25 million) and auditor's fee EUR 3.2 million (2.9 million). In personnel expenses the research and development costs were EUR 16 million (16 million).

6. Income taxes

EURm	2023	2022
Tax expense for the period	9	74
Tax expense for the previous periods	-10	10
Total	-1	84

Deferred tax assets and liabilities ¹⁾

EURm	2023	2022
Deferred tax assets		
Provisions	33	58
Share-based payments	2	3
Other temporary differences	24	176
Total	60	236
Deferred tax liabilities		
Accumulated depreciation difference	73	80
Revaluations of land areas	60	60
Total	133	139

¹⁾ The parent company has not recognised deferred tax assets and liabilities in the balance sheet. Deferred tax assets and liabilities are calculated based on temporary differences between the carrying and taxable values of assets and liabilities.

7. Intangible assets

EURm	INTANGIBLE RIGHTS	OTHER INTANGIBLE ASSETS	ADVANCE PAYMENTS	TOTAL
2023				
Accumulated costs	22	300	26	348
Accumulated amortisation and impairments	-18	-273	—	-291
Carrying value, at 31 December	5	27	26	58
Carrying value, at 1 January	5	32	22	60
Additions	2	8	8	18
Disposals	—	-5	—	-5
Amortisation	-2	-13	—	-15
Reclassifications	—	4	-4	—
Carrying value, at 31 December	5	27	26	58
2022				
Accumulated costs	22	293	22	337
Accumulated amortisation and impairments	-18	-260	—	-278
Carrying value, at 31 December	5	32	22	60
Carrying value, at 1 January	5	46	11	62
Additions	2	—	12	13
Amortisation	-2	-13	—	-16
Carrying value, at 31 December	5	32	22	60

8. Tangible assets

EURm	LAND AND WATER AREAS	BUILDINGS	MACHINERY AND EQUIPMENT	OTHER TANGIBLE ASSETS	ADVANCE PAYMENTS AND CONSTRUCTION IN PROGRESS	TOTAL
2023						
Accumulated costs	450	574	2,268	138	26	3,456
Accumulated depreciation and impairments	—	-408	-1,854	-120	—	-2,382
Revaluations	298	—	—	—	—	298
Carrying value, at 31 December	748	166	414	18	26	1,372
Carrying value, at 1 January	746	178	453	19	21	1,418
Additions	2	1	24	2	23	52
Disposals	—	—	—	—	—	-1
Depreciations	—	-16	-79	-3	—	-97
Reclassifications	—	2	15	—	-17	—
Carrying value, at 31 December	748	166	414	18	26	1,372
2022						
Accumulated costs	449	570	2,230	139	21	3,409
Accumulated depreciation and impairments	—	-392	-1,777	-120	—	-2,289
Revaluations	298	—	—	—	—	298
Carrying value, at 31 December	746	178	453	19	21	1,418
Carrying value, at 1 January	718	196	514	21	13	1,462
Additions	33	—	13	—	18	66
Disposals	-3	-2	-1	—	—	-6
Depreciations	—	-17	-82	-3	—	-102
Reclassifications	—	1	9	—	-10	—
Changes in revaluations	-2	—	—	—	—	-2
Carrying value, at 31 December	746	178	453	19	21	1,418

9. Other non-current assets

EURm	HOLDINGS IN GROUP COMPANIES	HOLDINGS IN PARTICIPATING INTEREST COMPANIES	OTHER SHARES AND HOLDINGS	RECEIVABLES FROM GROUP COMPANIES	RECEIVABLES FROM PARTICIPATING INTEREST COMPANIES	TOTAL
2023						
Accumulated costs	8,054	5	3	993	3	9,057
Accumulated value adjustments	-1,467	—	—	—	—	-1,467
Carrying value, at 31 December	6,587	5	3	993	3	7,590
Carrying value, at 1 January	5,834	5	3	930	3	6,774
Additions	812	—	—	164	—	976
Disposals	-68	—	—	-102	—	-169
Value adjustments ¹⁾	9	—	—	—	—	9
Carrying value, at 31 December	6,587	5	3	993	3	7,590
2022						
Accumulated costs	7,310	5	3	930	3	8,251
Accumulated value adjustments	-1,476	—	—	—	—	-1,476
Carrying value, at 31 December	5,834	5	3	930	3	6,774
Carrying value, at 1 January	4,610	5	3	786	3	5,408
Additions	1,285	—	—	332	—	1,617
Disposals	—	—	—	-188	—	-188
Value adjustments ¹⁾	-62	—	—	—	—	-62
Carrying value, at 31 December	5,834	5	3	930	3	6,774

¹⁾ Value adjustments are shown in financial expenses

10. Current receivables

EURm	RECEIVABLES FROM GROUP COMPANIES	RECEIVABLES FROM PARTICIPATING INTEREST COMPANIES	RECEIVABLES FROM OTHERS	TOTAL
2023				
Trade receivables	478	13	37	528
Loan receivables ¹⁾	1,269	—	—	1,269
Prepayments and accrued income ²⁾	3	—	12	14
Other current receivables	37	—	182	219
Carrying value, at 31 December	1,786	13	231	2,029
2022				
Trade receivables	783	17	57	857
Loan receivables ¹⁾	1,795	—	—	1,795
Prepayments and accrued income ²⁾	2	—	23	25
Other current receivables	—	—	490	490
Carrying value, at 31 December	2,581	17	570	3,167

¹⁾ There were no loans granted to the company's President and CEO and members of the Board of Directors at 31 December 2023 and 2022.

²⁾ Prepayments and accrued income

EURm	2023	2022
Interest income	9	10
Income taxes	2	10
Other items	3	5
Carrying value, at 31 December	14	25

11. Equity

EURm	SHARE CAPITAL	REVALUATION RESERVE	RESERVE FOR INVESTED NON-RESTRICTED EQUITY	RETAINED EARNINGS	PROFIT/LOSS FOR THE PERIOD	TOTAL SHAREHOLDER'S EQUITY
2023						
Carrying value, at 1 January	890	140	1,273	1,333	-190	3,445
Transfer of profit from previous year	—	—	—	-190	190	—
Profit for period	—	—	—	—	1,675	1,675
Dividend distribution	—	—	—	-800	—	-800
Other changes	—	—	—	-1	—	-1
Carrying value, at 31 December	890	140	1,273	342	1,675	4,319
2022						
Carrying value, at 1 January	890	141	1,273	1,557	469	4,330
Transfer of profit from previous year	—	—	—	469	-469	—
Profit for period	—	—	—	—	-190	-190
Dividend distribution	—	—	—	-693	—	-693
Changes in revaluations	—	-2	—	—	—	-2
Other changes	—	—	—	-1	—	-1
Carrying value, at 31 December	890	140	1,273	1,333	-190	3,445

EURm	2023	2022
Distributable funds		
Reserve for invested non-restricted equity	1,273	1,273
Retained earnings from previous years	342	1,333
Profit (Loss) for the period	1,675	-190
Total distributable funds at 31 December	3,290	2,416

12. Provisions

EURm	RESTRUCTURING	TERMINATION	ENVIRONMENTAL	OTHER ¹⁾	TOTAL
2023					
Provisions at 1 January	3	2	8	286	299
Provisions made during the year	—	—	1	—	1
Provisions utilised during the year	—	—	—	-129	-130
Unused provisions reversed	—	-1	—	-2	-3
Carrying value, at 31 December	2	1	9	155	167
2022					
Provisions at 1 January	3	3	9	137	152
Provisions made during the year	—	—	2	149	151
Provisions utilised during the year	—	—	—	-1	-1
Unused provisions reversed	—	—	-2	—	-3
Carrying value, at 31 December	3	2	8	286	299

¹⁾ Other provisions are attributable to onerous contracts and negative fair values of financial derivatives. At the end of 2023 the negative fair value in other provisions of EUR 8 million (8 million) is attributable to one group internal cross currency swap and EUR 0.3 million (10 million) to group internal foreign currency forwards.

13. Non-current liabilities

EURm	2023	2022
Bonds	2,089	2,102
Loans from financial institutions	185	1,578
Payables to group companies	285	160
Other non-current liabilities	134	149
Carrying value, at 31 December	2,693	3,988

Maturity in 2029 (in 2028) or later

EURm	2023	2022
Bonds	1,000	1,750
Loans from financial institutions	62	92
Other non-current liabilities	134	149
Total	1,196	1,992

Bonds

FIXED RATE PERIOD	INTEREST RATE, %	CURRENCY	NOMINAL VALUE ISSUED, MILLION	CARRYING VALUE 2023, EURm	CARRYING VALUE 2022, EURm
1997–2027	7.450	USD	375	339	352
2020–2028	0.125	EUR	750	750	750
2021–2031	0.500	EUR	500	500	500
2022–2029	2.250	EUR	500	500	500
Carrying value, at 31 December				2,089	2,102
Non-current portion				2,089	2,102

14. Current liabilities

EURm	PAYABLES TO GROUP COMPANIES	PAYABLES TO PARTICIPATING INTEREST COMPANIES	PAYABLES TO OTHERS	TOTAL
2023				
Loans from financial institutions	—	—	15	15
Trade payables	104	6	341	451
Accrued expenses and deferred income ¹⁾	1	—	88	88
Other current liabilities	3,549	—	201	3,750
Carrying value, at 31 December	3,654	6	645	4,305
2022				
Advances received	—	—	1	1
Trade payables	137	3	454	594
Accrued expenses and deferred income ¹⁾	1	—	103	104
Other current liabilities	4,196	—	573	4,769
Carrying value, at 31 December	4,334	3	1,130	5,467

¹⁾ Accrued expenses and deferred income

EURm	2023	2022
Personnel expenses	73	84
Interest expenses	15	17
Other items	1	3
Carrying value, at 31 December	88	104

15. Commitments

EURm	2023	2022
Guarantees		
Other guarantees on behalf of group companies	25	28
Other commitments		
Leasing commitments, due within 12 months	24	18
Leasing commitments, due after 12 months	115	89
Other commitments	47	51
Total	212	187

In addition, the parent company acts as a guarantor on behalf of other companies belonging to the group. Majority of such commitments relate to major investment projects and can end up payable by the parent company in case group companies are unable to manage their obligations. » [Refer Note 4.1](#) Property, plant and equipment for information about major investment projects.

Pension commitments of the President and CEO and the members of the Group Executive Team

» [Refer Note 3.2](#) Key management personnel.

Related party transactions

» [Refer Note 8.3](#) Related party transactions.

16. Shares and holdings owned by parent company

SUBSIDIARIES	COUNTRY OF INCORPORATION	HOLDING %
Myllykoski Oyj	FI	100.00
Repola Investment Oy	FI	100.00
Suurijärven Huolto Oy	FI	65.44
Unicarta Oy	FI	100.00
UPM (Vietnam) Limited	VN	100.00
UPM AG	CH	100.00
UPM Asia Pacific Pte. Ltd.	SG	100.00
UPM B.V.	NL	100.00
UPM Biochemicals GmbH	DE	100.00

SUBSIDIARIES	COUNTRY OF INCORPORATION	HOLDING %
UPM Communication Papers Oy	FI	100.00
UPM Energy Oy	FI	100.00
UPM Kft.	HU	100.00
UPM Manufatura e Comércio de Produtos Florestais Ltda.	BR	100.00
UPM NV	BE	100.00
UPM OÜ	EE	100.00
UPM Plywood Oy	FI	100.00
UPM Pulp Oy	FI	100.00
UPM Pulp Sales Oy	FI	100.00
UPM Raflatac Canada Holdings Inc.	CA	100.00
UPM Raflatac NZ Limited	NZ	100.00
UPM Raflatac Oy	FI	100.00
UPM Raflatac S.r.l.	AR	27.80
UPM Romania S.R.L	RO	100.00
UPM Silvesta Oy	FI	100.00
UPM Specialty Papers Oy	FI	100.00
UPM Wood Materials (UK) Ltd	UK	100.00
UPM Wood Materials Austria GmbH	AT	100.00
UPM-Kymmene (HK) Ltd.	CN/HK	100.00
UPM-Kymmene (Korea) Ltd	KR	100.00
UPM-Kymmene (UK) Holdings Limited	UK	100.00
UPM-Kymmene A/S	DK	100.00
UPM-Kymmene AB	SE	100.00
UPM-Kymmene B.V.	NL	100.00
UPM-Kymmene Beteiligungs GmbH	DE	100.00
UPM-Kymmene d.o.o.	SI	100.00
UPM-Kymmene Groupe S.A.	FR	100.00
UPM-Kymmene Grundstücksverwaltung GmbH	DE	100.00
UPM-Kymmene Hellas Ltd	GR	100.00
UPM-Kymmene India Private Limited	IN	100.00
UPM-Kymmene Investment Inc.	US	100.00
UPM-Kymmene Japan K.K.	JP	100.00
UPM-Kymmene Pty Limited	AU	100.00
UPM-Kymmene S.A.	ES	100.00
UPM-Kymmene S.r.l.	IT	100.00
UPM-Kymmene s.r.o.	CZ	100.00
UPM-Kymmene Seven Seas Oy	FI	100.00
UPM-Kymmene Slovakia s.r.o.	SK	100.00
Werla Insurance Company Ltd	MT	100.00

PARTICIPATING INTEREST COMPANIES	COUNTRY OF INCORPORATION	HOLDING %
Kiinteistö Oy Joutsan Rantatie 3	FI	25.43
Metsäteho Oy	FI	23.95
Oy Keskuslaboratorio - Centrallaboratorium Ab	FI	38.65
Perkaus Oy	FI	33.33
Rönnäsin Kiinteistöhuolto Oy	FI	28.41
Steveco Oy	FI	34.32

Group subsidiaries and joint operations are disclosed in » [Note 8.2.](#)

Electricity business

According to Electricity Market Act (588/2013), company is required to unbundle electricity business from other operations if the size of the electricity business is not considered minor. The Decree on the unbundling of electricity business of the Ministry of Economic Affairs and Employment of Finland (TEM 1305/2019) states that electricity business is not considered minor if the revenue exceeds 500 thousand euros. Electricity business refers to production and sales of electricity. The

electricity business of the parent entity exceeds the minimum requirement, therefore, the mentioned requirement is applicable to the company.

Accounting policies

The unbundled financial statement of electricity business is prepared in accordance with Electricity Market Act. Transactions and balance sheet items are recorded to income statement and balance sheet in accordance with the cause-and-effect principle. The transactions and balance sheet items which are not directly derived from the electricity business, are allocated based on the size of the business.

Income statement

EURm	2023	2022
Sales	11	40
Other operating income	6	2
Materials and services		
Raw materials and consumables purchased	-16	-10
	-16	-10
Personnel expenses		
Salaries and fees	—	—
Indirect employee costs		
Pension costs	—	—
Other indirect employee costs	—	—
	—	—
Depreciation, amortisation and impairment charges		
Depreciation and amortisation	-1	-1
Other operating expenses	-2	-1
Operating profit (loss)	-3	29
Profit (loss) before closing entries and tax	-3	29
Closing entries		
Depreciation difference	1	1
Income taxes	—	-6
Profit (Loss) for the period	-2	24

Balance sheet

EURm	2023	2022
ASSETS		
Non-current assets		
Tangible assets		
Machinery and equipment	5	6
Total non-current assets	5	6
Current assets		
Receivables		
Current receivables		
Trade receivables	1	8
	1	8
Cash and cash equivalents	21	25
Total current assets	23	33
Assets	28	40

EURm	2023	2022
EQUITY AND LIABILITIES		
Equity		
Retained earnings	26	3
Profit (Loss) for the period	-2	24
Total equity	24	26
Accumulated depreciation difference	3	4
LIABILITIES		
Current liabilities		
Trade payables	—	1
Other current liabilities	1	8
Total liabilities	1	9
Equity and liabilities	28	40



Auditor's Report (Translation of the Finnish Original)

To the Annual General Meeting of UPM-Kymmene Corporation

Report on the Audit of the Financial Statements

Opinion

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position, financial performance and cash flows in accordance with IFRS Accounting Standards as adopted by the EU
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report to the Audit Committee.

What we have audited

We have audited the financial statements of UPM-Kymmene Corporation (business identity code 1041090-0) for the year ended 31 December 2023.

The financial statements comprise:

- the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, which include material accounting policy information and other explanatory information
- the parent company's balance sheet, income statement, cash flow statement and notes.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, the non-audit services that we have provided to the parent company and group companies are in accordance with the applicable law and regulations in Finland and we have not provided non-audit services that are prohibited under Article 5(1) of Regulation (EU) No 537/2014. The non-audit services that we have provided are disclosed in note 2.3 to the Financial Statements.

Our Audit Approach

Overview



- Overall group materiality: € 65 million, which represents approximately 5 % of the the average profit before tax for the last three years.
- The group audit scope encompassed all significant group companies, as well as a number of smaller group companies in Europe, Asia, North America and South America covering the vast majority of revenue, assets and liabilities.
- Valuation of forest assets
- Valuation of energy shareholdings

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we considered where management made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.



Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall group materiality for the consolidated financial statements as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements on the financial statements as a whole.

Overall group materiality	€ 65 million (previous year € 95 million)
How we determined it	Approximately 5% of the profit before tax for the last three years.
Rationale for the materiality benchmark applied	We chose profit before taxes as the benchmark because, in our view, it is the benchmark against which the performance of the Group is commonly measured by users, and is a generally accepted benchmark. We chose approximately 5%, which is within the range of acceptable quantitative materiality thresholds in auditing standards.

How we tailored our group audit scope

We tailored the scope of our audit, taking into account the structure of the group, the accounting processes and controls, and the industry in which the group operates.

We determined the type of work that needed to be performed at group companies by us, as the group engagement team, or by auditors from other PwC network firms operating under our instruction. Audits were performed in group companies which were considered significant either because of their individual financial significance or due to their specific nature, covering the majority of revenue, assets and liabilities of the group. Selected specified procedures as well as analytical procedures were performed to cover the remaining group companies.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Key audit matter in the audit of the group	How our audit addressed the key audit matter
<p>Valuation of forest assets</p> <p>Refer to note 4.2. in the consolidated financial statements for the related disclosures.</p> <p>The group owns and leases a total of 1 073 thousand hectares of forests and plantations in Finland, the United States and Uruguay. The value of the forest assets, i.e. standing trees, amount to € 2 355 million at 31 December 2023. Forest assets are measured at fair value less cost to sell. The fair value is calculated on the basis of discounted future expected cash flows. Young saplings and land are valued at cost. Main factors used in the valuation are estimates for growth and wood harvested, stumpage prices and discount rates.</p> <p>We focused on this area as the amounts are material, the valuation process is complex and judgmental and is based on assumptions that are affected by expected future market or economic conditions.</p>	<p>In testing the valuation of forest assets, in conjunction with our valuation specialists we:</p> <ul style="list-style-type: none"> – Assessed the methodologies adopted by management for the valuation; – Tested the mathematical accuracy of the model used for valuation; – Assessed the discount rates applied in the valuation; – Assessed the other key valuation assumptions; and, – Validated key inputs and data used in valuation model such as stumpage price, trend price forecast, tree growth assumptions, consumer price index and inflation.



Valuation of energy shareholdings

Refer to note 4.3. in the consolidated financial statements for the related disclosures.

The energy shareholdings amounted to € 2 283 million at 31 December 2023. The energy shareholdings are unlisted equity investments in energy companies and are valued at fair value through other comprehensive income, net of tax if applicable. The fair value is determined on a discounted cash flow basis. The main factors impacting the future cash flows include future electricity prices, price trends, and discount rates.

We focused on this area as the amounts are material, the valuation process is complex and judgmental and is based on assumptions that are affected by expected future market or economic conditions.

In testing the valuation of the energy shareholdings, in conjunction with our valuation specialists we:

- Assessed the methodology adopted by management for the valuation;
- Tested the mathematical accuracy of the model used for valuation;
- Assessed the discount rate applied in the valuation;
- Assessed the future electricity prices and price trends;
- Validated key inputs and data used in valuation model such as production costs and volumes, UPM's ownership percentages, inflation, tax rate and net debt.

We have no key audit matters to report with respect to our audit of the parent company financial statements.

There are no significant risks of material misstatement referred to in Article 10(2c) of Regulation (EU) No 537/2014 with respect to the consolidated financial statements or the parent company financial statements.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with IFRS Accounting Standards as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or to cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.



- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Appointment

We have been acting as auditors appointed by the annual general meeting since 30 April 1996. Our appointment represents a total period of uninterrupted engagement of 28 years. The Company arranged the latest audit tendering process in 2013. Authorised Public Accountant (KHT) Mikko Nieminen has acted as the responsible auditor since 4 April 2019, representing a total uninterrupted period of five years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report and the Annual Report is expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to the report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion

- the information in the report of the Board of Directors is consistent with the information in the financial statements
- the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Other Statements

We support the proposal that the financial statements are adopted. The proposal by the Board of Directors regarding the distribution of profits is in compliance with the Limited Liability Companies Act. We support that the Members of the Board of Directors and the Managing Director of the parent company should be discharged from liability for the financial period audited by us.

Helsinki 14 February 2024

PricewaterhouseCoopers Oy
Authorised Public Accountants

Mikko Nieminen
Authorised Public Accountant (KHT)

Other financial information

Alternative performance measures

UPM presents certain performance measures of historical performance, financial position and cash flows, which in accordance with the "Alternative Performance Measures" guidance issued by the European Securities and Markets Authority (ESMA) are not accounting measures defined or specified in IFRS Accounting Standards and are therefore considered as alternative performance measures. These alternative performance measures are described below:

ALTERNATIVE PERFORMANCE MEASURE	DEFINITION
Operating profit	Profit before income tax expense, finance expenses and finance income and net gains on sale of energy shareholdings as presented on the face of the IFRS income statement. Gains on sale of energy shareholdings are not recorded to the income statement from 2018 onwards.
Comparable EBIT	Operating profit adjusted for items affecting comparability.
Comparable EBITDA	Operating profit before depreciation, amortisation and impairments, change in fair value of forest assets and wood harvested, share of results of associates and joint ventures and items affecting comparability.
Comparable profit before tax	Profit before income tax expense excluding items affecting comparability.
Comparable profit for the period	Profit for the period excluding items affecting comparability and their tax impact.
Comparable EPS, EUR	Earnings per share calculated in accordance with IFRS excluding items affecting comparability and their tax impact.
Net debt	Total of current and non-current debt less cash and cash equivalents and interest-bearing current and non-current financial assets.
Items affecting comparability	Certain non-operational or non-cash valuation transactions with significant income statement impact are considered as items affecting comparability, if they arise from asset impairments, restructuring measures, asset sales, fair value changes of forest assets resulting from changes in valuation parameters or estimates or changes in legislation or legal proceedings. In addition, the changes in fair value of unrealised cash flow and commodity hedges are classified as items affecting comparability. Numerical threshold for items to be considered as significant in UPM's business areas UPM Fibres, UPM Specialty Papers and UPM Communication Papers is determined as one cent (EUR 0.01) after tax per share or more. In other business areas, the impact is considered to be significant if the item exceeds EUR 1 million before tax.
Free cash flow	Cash generated from operations after cash used for investing activities.
Return on equity (ROE), %	Profit for the period as a percentage of average equity.
Comparable ROE, %	Return on equity (ROE) excluding items affecting comparability.
Return on capital employed (ROCE), %	Profit before taxes, interest expenses and other financial expenses as a percentage of average capital employed.
Comparable ROCE, %	Return on capital employed (ROCE) excluding items affecting comparability.
Capital employed	Group total equity and total debt.
Business area's comparable ROCE, %	Business area's operating profit adjusted for items affecting comparability as a percentage of business area's average capital employed.
Business area's capital employed	Business area's operating assets less its operating liabilities. Operating assets include goodwill, other intangible assets, property, plant and equipment, forest assets, energy shareholdings, investments in associates and joint-ventures, inventories and trade receivables. Operating liabilities include trade payables and advances received.
Capital expenditure	Capitalised investments in property, plant and equipment, intangible assets including goodwill arising from business combinations, energy shareholdings and other shares, associates and joint ventures.
Capital expenditure excluding acquisitions and shares	Capital expenditure excluding investments in shares and participations.
Operating cash flow per share, EUR	Operating cash flow divided by adjusted average number of shares during the period excluding treasury shares.
Gearing ratio, %	Net debt as a percentage of total equity
Net debt to EBITDA	Net debt divided by comparable EBITDA
Equity to assets ratio, %	Equity expressed as a percentage of total assets less advances received.

Reconciliation of key figures to IFRS (Quarterly key figures are unaudited)

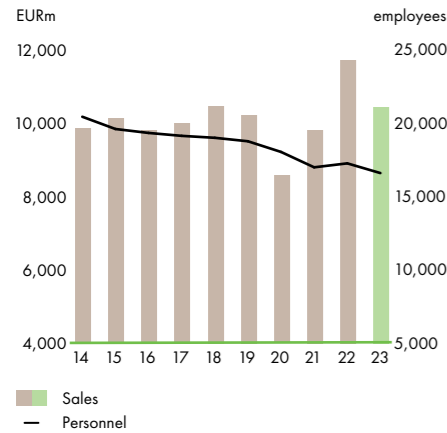
EURm, OR AS INDICATED	Q4/23	Q3/23	Q2/23	Q1/23	Q4/22	Q3/22	Q2/22	Q1/22	Q1-Q4/23	Q1-Q4/22
Items affecting comparability										
Impairment charges	-1	-113	-2	-1	5	7	4	-95	-117	-80
Restructuring charges	-15	-132	-15	-37	-15	-6	5	0	-199	-15
Change in fair value of unrealised cash flow and commodity hedges	-10	-5	8	5	14	3	-4	0	-2	13
Capital gains and losses on sale of non-current assets	0	2	3	-6	13	2	18	1	0	34
Fair value changes of forest assets	-86	0	0	0	0	0	0	0	-86	0
Other non-operational items	0	0	0	0	5	-5	-74	0	0	-74
Total items affecting comparability in operating profit	-113	-249	-5	-38	22	2	-52	-94	-405	-122
Items affecting comparability in financial items	0	1	1	-67	0	0	0	0	-65	0
Items affecting comparability in taxes	26	71	4	8	-8	-9	15	1	109	-1
Items affecting comparability, total	-87	-177	0	-97	14	-7	-37	-93	-361	-122
Comparable EBITDA										
Operating profit (loss)	211	-29	108	318	675	781	335	183	608	1,974
Depreciation, amortisation and impairment charges excluding items affecting comparability	152	152	125	114	119	114	113	111	543	457
Change in fair value of forest assets and wood harvested excluding items affecting comparability	-10	5	16	5	-12	3	8	-12	17	-12
Share of result of associates and joint ventures	0	0	0	1	-1	-2	-2	1	1	-4
Items affecting comparability in operating profit	113	249	5	38	-22	-2	52	94	405	122
Comparable EBITDA	465	376	255	477	759	894	506	377	1,573	2,536
% of sales	18.4	14.6	10.0	17.1	23.5	26.1	19.7	15.0	15.0	21.6
Comparable EBIT										
Operating profit (loss)	211	-29	108	318	675	781	335	183	608	1,974
Items affecting comparability in operating profit	113	249	5	38	-22	-2	52	94	405	122
Comparable EBIT	323	220	114	356	653	779	387	277	1,013	2,096
% of sales	12.8	8.5	4.5	12.8	20.2	22.8	15.1	11.0	9.7	17.9
Comparable profit before tax										
Profit (loss) before tax	180	-52	96	239	638	766	361	179	464	1,944
Items affecting comparability in operating profit	113	249	5	38	-22	-2	52	94	405	122
Items affecting comparability in financial items	0	-1	-1	67	-	-	-	-	65	-
Comparable profit before tax	293	196	101	344	616	764	413	273	934	2,066
Comparable ROCE, %										
Comparable profit before tax	293	196	101	344	616	764	413	273	934	2,066
Interest expenses and other financial expenses	40	33	22	17	34	20	9	21	112	85
Capital employed, average	333	229	123	361	651	784	422	294	1,046	2,151
Comparable ROCE, %	8.9	6.0	3.1	8.4	14.5	18.6	11.5	8.5	6.4	13.6
Comparable profit for the period										
Profit (loss) for the period	161	-28	77	183	503	622	292	139	394	1,556
Items affecting comparability, total	87	177	-	97	-14	7	37	93	361	122
Comparable profit for the period	248	149	77	281	489	629	329	232	755	1,679
Comparable EPS, EUR										
Comparable profit for the period	248	149	77	281	489	629	329	232	755	1,679
Profit attributable to non-controlling interest	-1	2	1	-7	-5	-11	-9	-5	-6	-31
Average number of shares basic (1,000)	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324	533,324
Comparable EPS, EUR	0.46	0.28	0.15	0.51	0.91	1.16	0.60	0.42	1.40	3.09
Comparable profit for the period	248	149	77	281	489	629	329	232	755	1,679
Total equity, average	11,670	11,751	12,290	12,883	12,589	11,799	11,167	11,071	12,205	11,992
Comparable ROE, %	8.5	5.1	2.5	8.7	15.5	21.3	11.8	8.4	6.2	14.0

Financial information 2014–2023

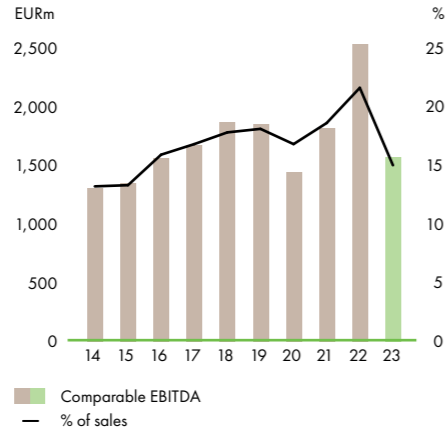
EURm, OR AS INDICATED	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Income statement										
Sales	10,460	11,720	9,814	8,580	10,238	10,483	10,010	9,812	10,138	9,868
Comparable EBITDA	1,573	2,536	1,821	1,442	1,851	1,868	1,677	1,560	1,350	1,306
% of sales	15.0	21.6	18.6	16.8	18.1	17.8	16.8	15.9	13.3	13.2
Operating profit	608	1,974	1,562	761	1,344	1,895	1,259	1,135	1,142	674
% of sales	5.8	16.8	15.9	8.9	13.1	18.1	12.6	11.6	11.3	6.8
Comparable EBIT	1,013	2,096	1,471	948	1,404	1,513	1,292	1,143	916	866
% of sales	9.7	17.9	15.0	11.1	13.7	14.4	12.9	11.6	9.0	8.8
Profit before tax	464	1,944	1,548	737	1,307	1,839	1,186	1,080	1,075	667
% of sales	4.4	16.6	15.8	8.6	12.8	17.5	11.9	11.0	10.6	6.8
Comparable profit before tax	934	2,066	1,457	924	1,367	1,457	1,218	1,089	849	793
% of sales	8.9	17.6	14.8	10.8	13.4	13.9	12.2	11.1	8.4	8.0
Profit for the period	394	1,556	1,307	568	1,073	1,496	974	880	916	512
% of sales	3.8	13.3	13.3	6.6	10.5	14.3	9.7	9.0	9.0	5.2
Comparable profit for the period	755	1,679	1,204	737	1,119	1,194	1,004	879	734	638
% of sales	7.2	14.3	12.3	8.6	10.9	11.4	10.0	9.0	7.2	6.5
Balance sheet										
Non-current assets	13,913	14,977	12,420	10,149	10,140	9,501	9,144	9,715	10,259	10,269
Inventories	1,948	2,289	1,594	1,285	1,367	1,642	1,311	1,346	1,376	1,356
Other current assets	2,612	4,941	3,662	3,424	3,215	2,853	2,612	2,850	2,558	2,570
Total assets	18,473	22,207	17,676	14,858	14,722	13,996	13,067	13,911	14,193	14,195
Total equity	11,531	12,879	11,106	9,513	10,175	9,797	8,663	8,237	7,944	7,480
Non-current liabilities	4,501	5,807	4,102	3,606	2,730	2,194	2,254	3,364	4,328	4,717
Current liabilities	2,441	3,522	2,468	1,740	1,818	2,005	2,150	2,309	1,921	1,998
Total equity and liabilities	18,473	22,207	17,676	14,858	14,722	13,996	13,067	13,911	14,193	14,195
Capital employed at year end	14,916	17,913	13,759	11,555	11,474	10,575	9,777	10,657	11,010	10,944
Capital expenditure	1,122	1,555	1,483	903	378	303	329	325	520	411
% of sales	10.7	13.3	15.1	10.5	3.7	2.9	3.3	3.3	5.1	4.2
Capital expenditure excluding acquisitions and shares	1,094	1,399	1,477	902	378	303	303	325	486	375
% of sales	10.5	11.9	15.1	10.5	3.7	2.9	3.0	3.3	4.8	3.8
Cash flow and net debt										
Operating cash flow	2,269	508	1,250	1,005	1,847	1,330	1,460	1,686	1,185	1,241
Free cash flow	1,193	-1,077	-74	126	1,432	1,131	1,336	1,424	750	994
Net debt	2,432	2,374	647	56	-453	-311	174	1,131	2,100	2,401
Key figures										
Return on capital employed (ROCE), %	3.5	12.8	12.4	6.7	12.3	18.4	12.5	10.5	10.3	6.5
Comparable ROCE, %	6.4	13.6	11.7	8.3	12.8	14.6	12.8	10.6	8.3	7.6
Return on equity (ROE), %	3.2	13.0	12.7	5.8	10.7	16.2	11.5	10.9	11.9	6.9
Comparable ROE, %	6.2	14.0	11.7	7.5	11.2	12.9	11.9	10.9	9.5	8.5
Gearing ratio, %	21	18	6	1	-4	-3	2	14	26	32
Net debt to EBITDA	1.55	0.94	0.35	0.04	-0.24	-0.17	0.10	0.73	1.56	1.84
Equity to assets ratio, %	62.5	58.1	62.9	64.1	69.2	70.1	66.6	59.4	56.1	52.7
Personnel										
Personnel at year end	16,573	17,236	16,966	18,014	18,742	18,978	19,111	19,310	19,578	20,414
Deliveries										
Pulp (1,000 t)	4,139	2,761	3,724	3,664	3,715	3,468	3,595	3,419	3,224	3,287
Electricity (GWh)	12,059	9,442	9,300	9,168	8,619	8,608	8,127	8,782	8,966	8,721
Papers, total (1,000 t)	4,935	6,135	7,486	7,062	8,326	8,996	9,430	9,613	9,771	10,028
Plywood (1,000 m3)	429	616	738	683	739	791	811	764	740	731
Sawn timber (1,000 m3)	1,524	1,538	1,610	1,604	1,741	1,719	1,728	1,751	1,731	1,609

Financial information 2014–2023

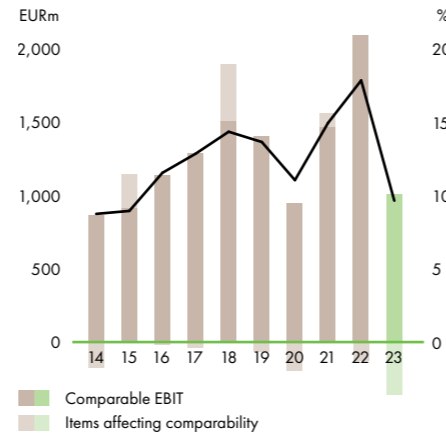
Sales and personnel



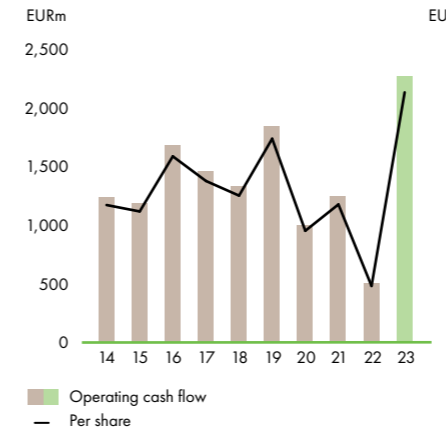
Comparable EBITDA



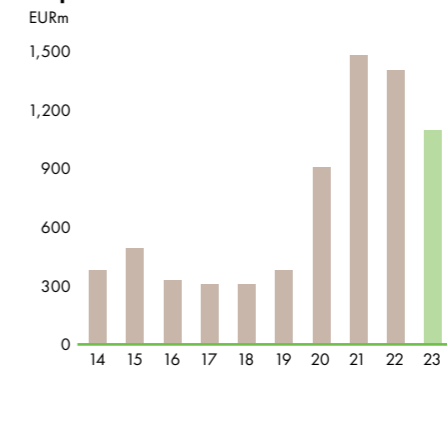
Comparable EBIT



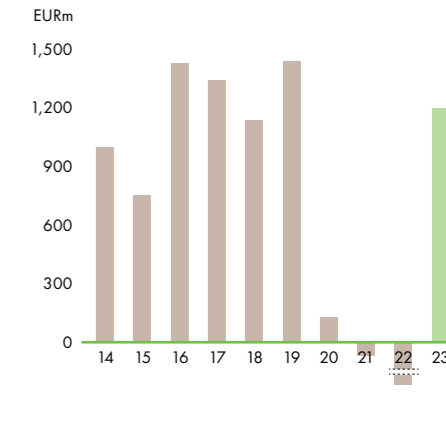
Operating cash flow



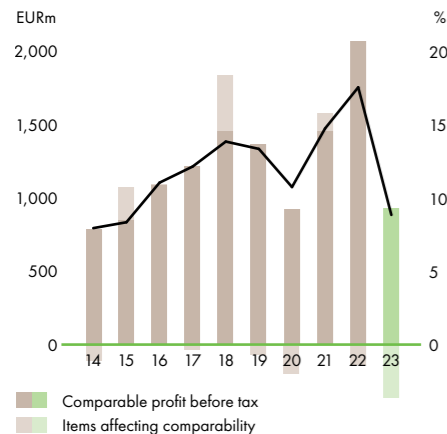
Capital expenditure excluding acquisitions and shares



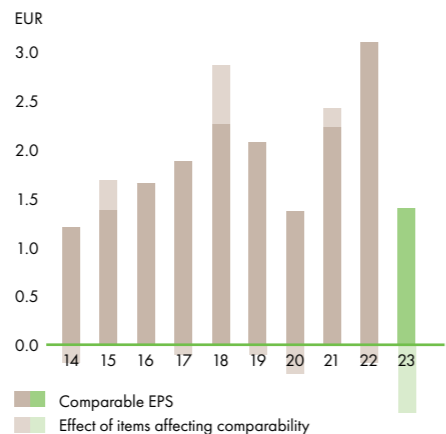
Free cash flow



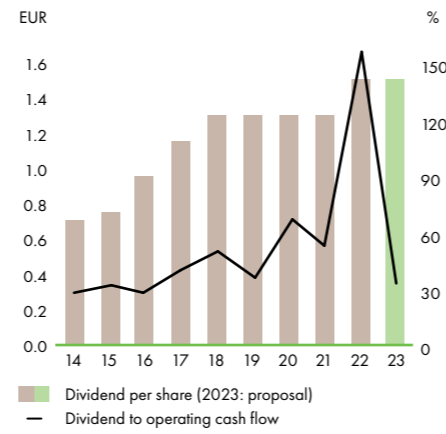
Comparable profit before tax



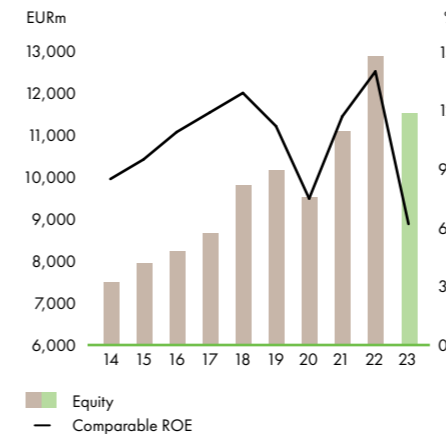
Comparable earnings per share



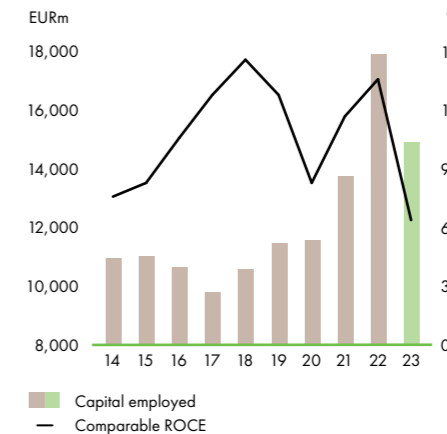
Dividend per share



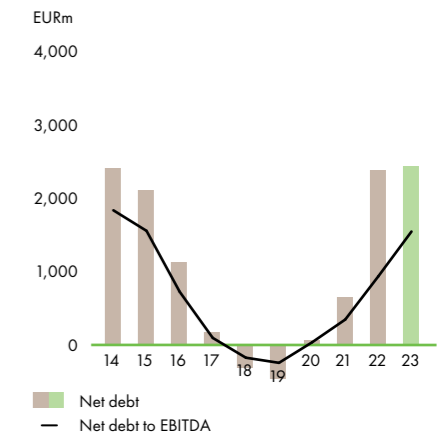
Equity and comparable ROE



Capital employed and comparable ROCE

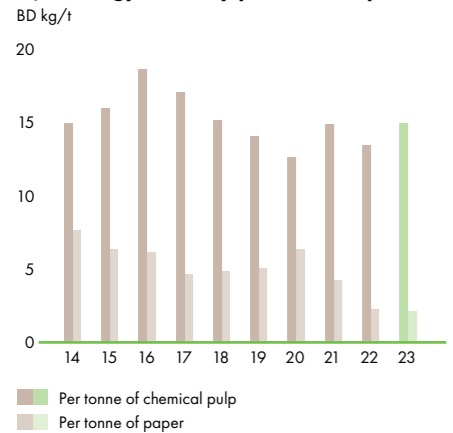


Net debt and net debt to EBITDA

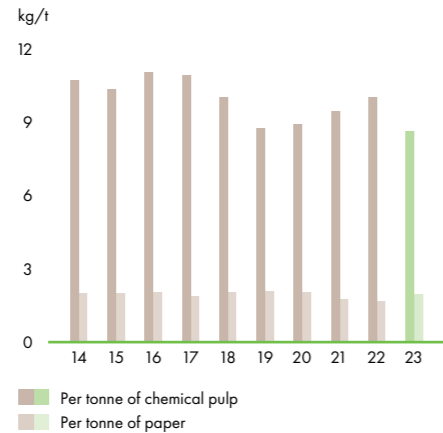


More on responsibility

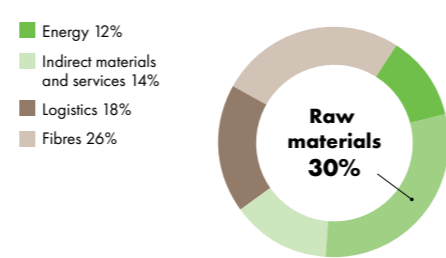
Solid waste to landfills and to incineration w/o energy recovery per tonne of product



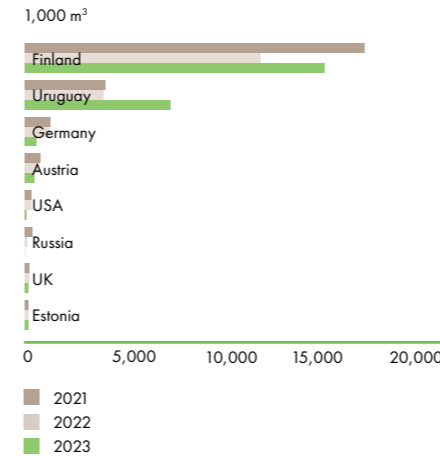
UPM's COD load per tonne of product



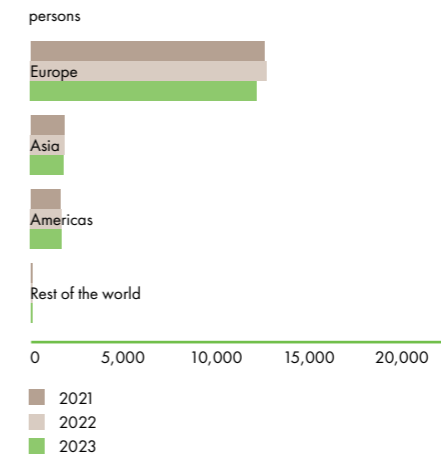
UPM's external purchasing spend 2023



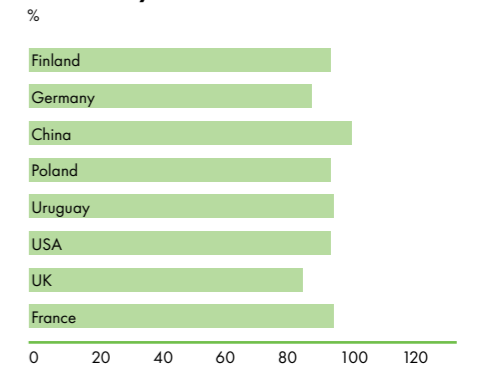
Wood deliveries to UPM mills



UPM employees by region

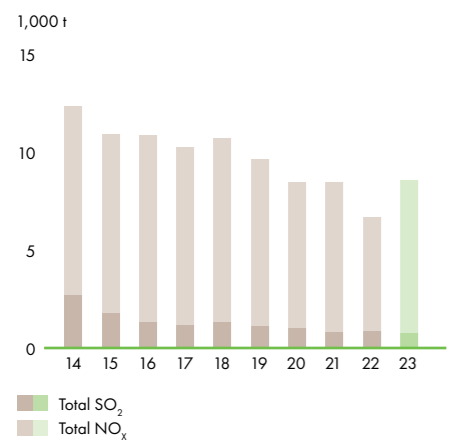


Ratio of female to male salaries weighted basic salary 2023

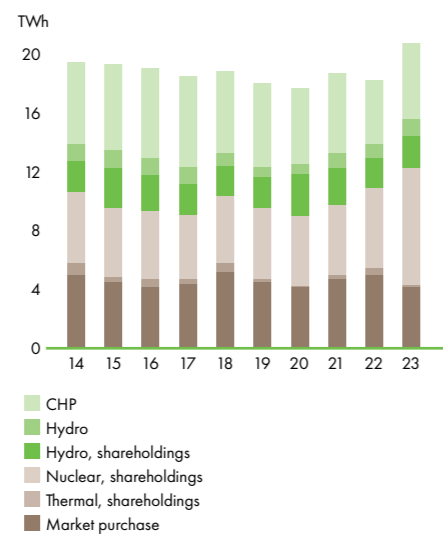


The ratio is calculated by comparing weighted average of basic salaries of women to men on the same job grade, for the eight biggest countries in terms of salaried employees. These countries cover 91% of UPM's total number of salaried employees.

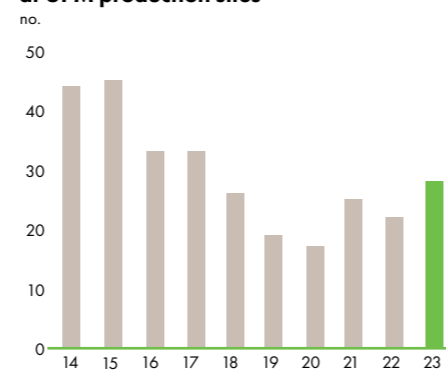
UPM's acidifying flue gases



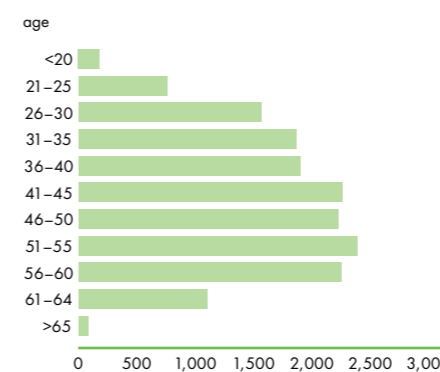
Electricity sourcing



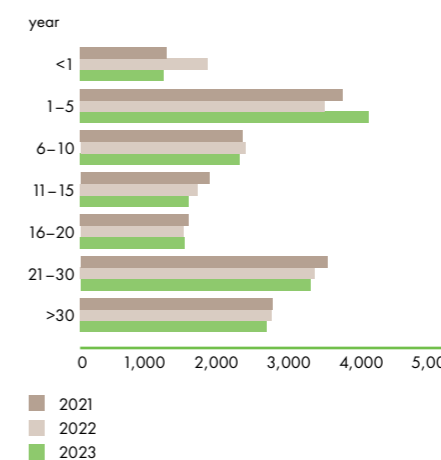
Environmental deviations at UPM production sites



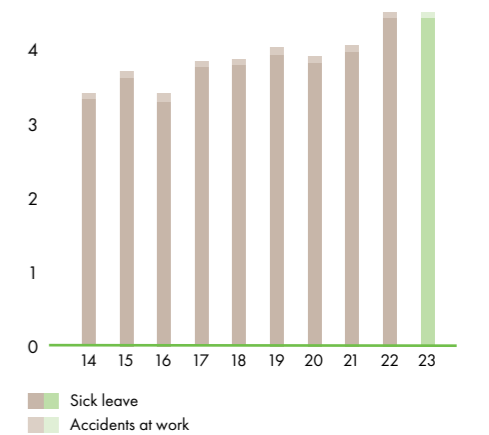
Age structure of UPM employees 2023



Employees' years of service with UPM



Absenteeism rate



Global operations, strong market positions

Our 16,600 people work in 43 countries across six continents. With our head office in Finland, our most important markets are in Europe, Asia and North America.

UPM FIBRES

- A versatile range of chemical pulp for many growing end uses with annual production capacity of 5.8 million tonnes produced in Finland and in Uruguay
- Annual capacities in tonnes by mills: UPM Paso de los Toros 2.1 million; UPM Fray Bentos 1.3 million; UPM Kymi 870,000 tonnes; UPM Pietarsaari 800,000 and UPM Kaukas 770,000
- 474,000 ha of own and leased plantations in Uruguay
- Certified sawn timber with annual capacity of 1.4 million cubic metres, produced at four sawmills in Finland

Pulp mills

Finland: UPM Kaukas (Lappeenranta), UPM Kymi (Kouvola) and UPM Pietarsaari

Uruguay: UPM Fray Bentos, UPM Paso de los Toros and certified eucalyptus plantations

Sawmills

Finland: UPM Alholma (Pietarsaari), UPM Kaukas (Lappeenranta), UPM Korkeakoski (Juupajoki) and UPM Seikku (Pori)

Market position

#3 pulp globally

UPM ENERGY

- Cost competitive low-emission electricity generation in Finland consisting of hydro, nuclear and thermal power
- The total electricity generation capacity is 1,951 MW, including UPM's own hydropower plants and shareholdings in other energy companies
- Approx. 31% share in the OL3 nuclear power plant unit through the shareholding in PVO
- Market agility and optimisation services for industrial consumers
- Largest shareholdings:
 - 47.69% of Pohjolan Voima Oy (PVO), which is a majority shareholder (58.5%) in Teollisuuden Voima Oyj (TVO)
 - 19% of Kemijoki Oy's hydropower shares

Hydropower plants:

Finland: Kallioinen (Sotkamo), Kaltimo (Joensuu), Katerma (Kuhmo), Keltti (Kouvola), Kuusankoski (Kouvola), Tyrvää (Sastamala), Voikkaa (Kouvola) and Äetsä

Market position

#2 in Finland

UPM RAFLATAC

- Self-adhesive paper and film products including label materials, graphics solutions and removable self-adhesive products label materials
- 12 factories and 23 slitting and distribution terminals in all continents

Labelstock factories

China: Changshu
 Finland: Tampere
 France: Nancy
 Germany: Hagenow and Kaltenkirchen
 Malaysia: Johor
 Poland: Kobierzyce (Wroclaw) and Nowa Wieś (Wroclaw)
 United Kingdom: Scarborough
 USA: Mills River, NC; Fletcher, NC and Dixon, IL

Slitting and distribution terminals

Argentina: Buenos Aires
 Australia: Melbourne
 Canada: Toronto
 Chile: Santiago
 China: Guangzhou and Tianjin
 India: Bangalore and Navi Mumbai
 Indonesia: Jakarta
 Italy: Osnago
 México: Ciudad de México, Guadalajara and Rosarito
 New Zealand: Auckland
 South Africa: Cape Town and Johannesburg
 South Korea: Suwon-Si
 Spain: Barcelona
 Thailand: Bangkok
 Turkey: Istanbul
 Ukraine: Kiev
 USA: Vancouver, WA
 Vietnam: Bien Hoa City

Market position

#2 globally

UPM SPECIALTY PAPERS

- Labelling materials, release liner base papers, flexible packaging papers, office and graphic papers
- Total annual production capacity of 2.0 million tonnes

Paper mills

China: UPM Changshu
 Germany: UPM Nordland Papier (Dörpen)
 Finland: UPM Jämsänkoski (Jämsä) and UPM Tervasaari (Valkeakoski)

Market position

#1 Labelling materials and release liner base papers globally

UPM COMMUNICATION PAPERS

- Magazine paper, newsprint and fine papers
- Annual paper production capacity of 4.9 million tonnes, manufactured in 11 paper mills
- Capacities: Annual production capacity of 2.4 million tonnes of magazine papers, 0.7 million tonnes of newsprint and 1.8 million tonnes of fine papers
- The combined heat and power (CHP) plants operating on paper mill sites included in the business area

Paper mills

Finland: UPM Jämsänkoski (Jämsä), UPM Kaukas (Lappeenranta), UPM Kymi (Kouvola) and UPM Rauma
 Germany: UPM Augsburg, UPM Ettringen, UPM Hürth, UPM Nordland Papier (Dörpen) and UPM Schongau
 United Kingdom: UPM Caledonian Paper (Irvine)
 USA: UPM Blandin (Grand Rapids, MN)

Market position

#1 in Europe

UPM PLYWOOD

- High-end plywood and veneer products mainly for construction, vehicle flooring and LNG shipbuilding as well as other industrial end uses
- Annual production capacity of 805,000 cubic metres

Plywood mills

Estonia: UPM Otepää
 Finland: UPM Joensuu, UPM Pellos 1, 2, 3 (Ristiina, Mikkeli) and UPM Savonlinna

Veneer mill

Finland: UPM Kalso (Vuohijärvi, Kouvola)

Market position

#1 High and mid segments in EMEA, LNG plywood globally

UPM BIOREFINING

- UPM Biofuels: Wood-based renewable diesel and naphtha with the annual production capacity of 130,000 t
- UPM Biochemicals: Glycols, lignin products, renewable functional fillers
- UPM Biomedicals: Wood-based biomedical products for medical and life science applications
- UPM Biocomposites: UPM ProFi decking materials made of recycled plastic waste and UPM Formi composite material to replace fossil-based plastics

Biofuels

Finland: UPM Lappeenranta Biorefinery (Lappeenranta)

Biochemicals

Germany: UPM Leuna Biorefinery (Leuna) (completed by the end of 2024)

Biomedicals

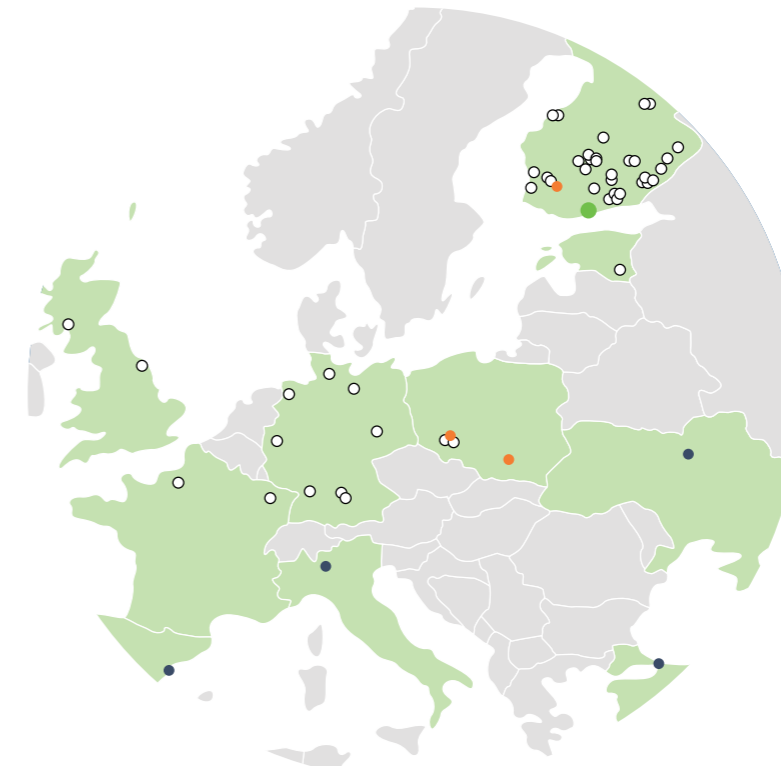
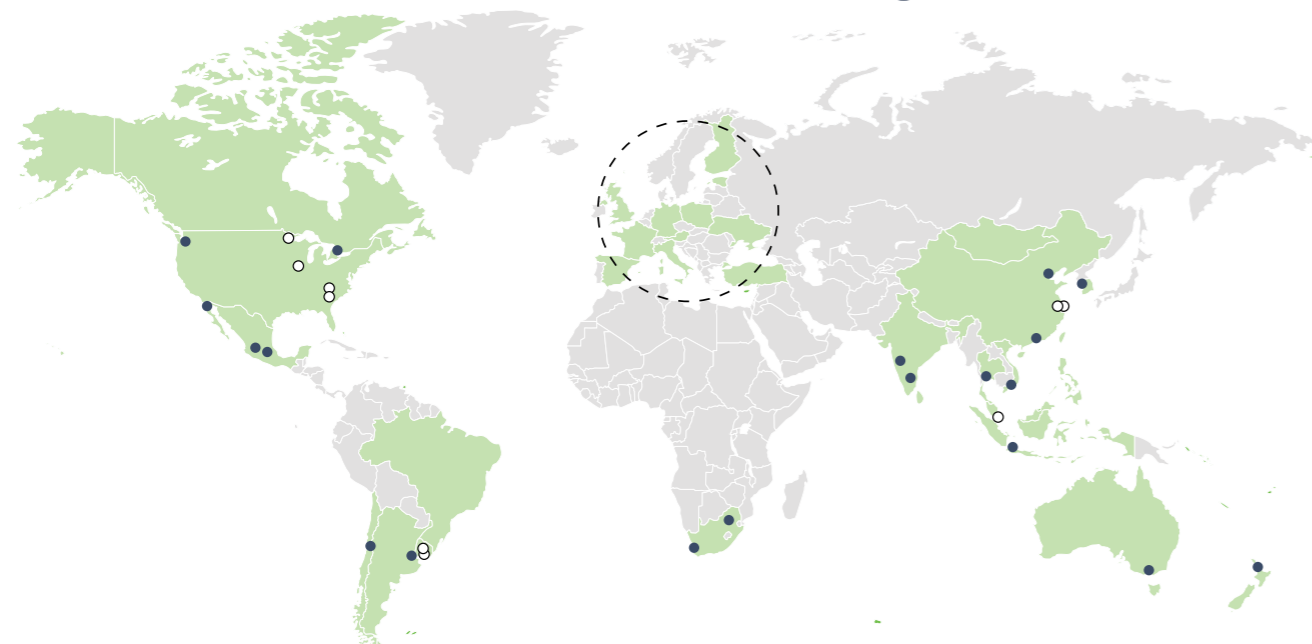
Finland: Biomedicum research and educational centre, Helsinki and UPM Northern Europe Research Center (NERC), Lappeenranta

Biocomposites

Finland: UPM Lahti
 Germany: UPM Bruchsal (Karlsruhe)

OTHER OPERATIONS

- UPM Forest: Purchasing wood and biomass in 15 countries, 523,000 ha of own forest land in Finland and 76,000 ha in the USA, offering forestry services to private forest owners in Finland



- Production plant
- Slitting and distribution terminal
- Group Head Office
- Other business hubs

Contact us

GROUP HEAD OFFICE

UPM

Alvar Aallon katu 1
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
upm.com/contact-us

Investor relations

Tel. +358 2041 50033
ir@upm.com

Stakeholder relations

Tel. +358 2041 5111
upm.com/contact-us

Responsibility

Tel. +358 2041 5111
responsibility@upm.com

Media relations

Tel. +358 40 588 3284
media@upm.com

BUSINESSES

UPM Fibres

UPM Pulp

Alvar Aallon katu 1
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
pulp@upm.com
www.upmpulp.com

UPM Forest

Peltokatu 26 C
PO Box 85
FI-33100 Tampere, Finland
Tel. +358 2041 6121
metsaviestinta@upm.com
metsaymparisto@upm.com
www.upmmetsa.fi (fi)

UPM Timber

Peltokatu 26 C
PO Box 203
FI-33101 Tampere, Finland
Tel. +358 2041 5113
timber@upm.com
www.upmtimber.com

UPM Energy

Alvar Aallon katu 1
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
upmenergy@upm.com
www.upmenergy.com

UPM Raflatac

Alvar Aallon katu 1
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
info@upmraflatac.com
www.upmraflatac.com

UPM Specialty Papers

Alvar Aallon katu 1
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
upm.specialtypapers@upm.com
www.upmspecialtypapers.com

UPM Communication Papers

Georg-Haindl-Strasse 5
D-86153 Augsburg, Germany
Tel. +49 821 31090
paperinfo@upm.com
www.upmpaper.com

UPM Plywood

Niemenkatu 16
PO Box 203
FI-15141 Lahti, Finland
Tel. +358 2041 5113
plywood@upm.com
www.wisaplywood.com

UPM Biofuels

Alvar Aallon katu 1
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
biofuels@upm.com
www.upmbiofuels.com

UPM Biochemicals

Am Haupttor, Bau 4614
D-06237 Leuna, Germany
Tel. +49 3461 5195000
biochemicals@upm.com
www.upmbiochemicals.com

UPM Biomedicals

Biomedicum 2U
Tukholmankatu 8
PO Box 380
FI-00101 Helsinki, Finland
Tel. +358 2041 5111
biomedicals@upm.com
www.upmbiomedicals.com

UPM Biocomposites

Niemenkatu 16
FI-15110 Lahti, Finland
Tel. +358 2041 5113
upmprofi@upm.com
upmformi@upm.com
www.upmprofi.com
www.upmformi.com

OTHER UPM BUSINESS HUBS

UPM Business Hub Tampere

Peltokatu 26
FI-33100 Tampere, Finland
www.upm.com/contact-us

UPM HR Service Center

Eximius Business Park
ul. Krakowska 280
32-080 Zabierzów (Krakow), Poland
hr.services@upm.com

UPM Business Hub Wrocław

CU Office
Jaworska 11 – 13
54-204 Wrocław, Poland
wro.bsh@upm.com

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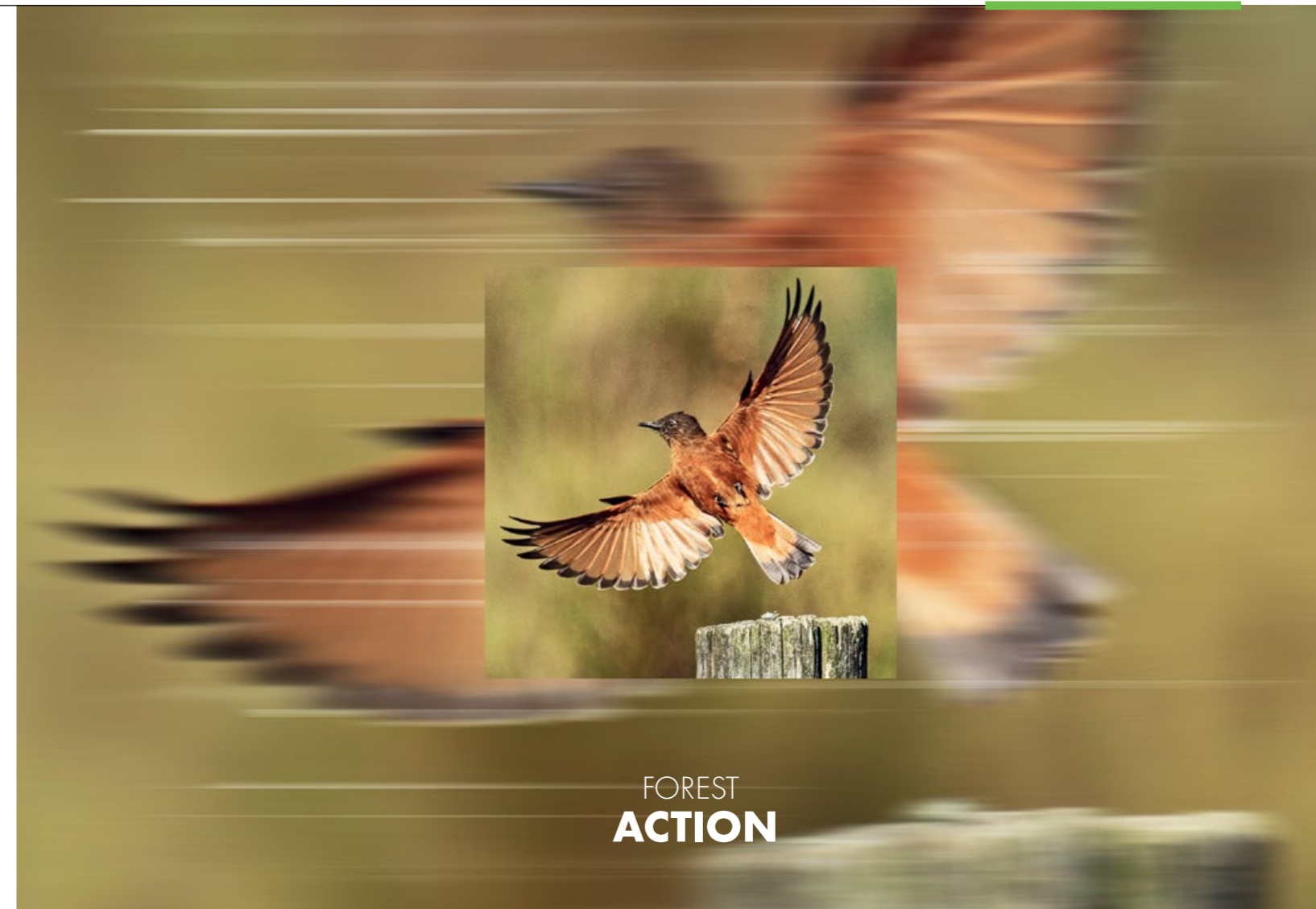
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LinkedIn: UPM – The Biofore Company

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Annual General Meeting

UPM-Kymmene Corporation's AGM will be held on Thursday, 4 April 2024 at 13:00 EEST at Messukeskus, Messuaukio 1, Helsinki, Finland. Detailed instructions for shareholders are available on the corporate website at

➤ www.upm.com/AGM2024

DIVIDEND

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 1.50 per share be paid for the 2023 financial year.

The Board proposes that the dividend be paid in two instalments. The first dividend instalment, EUR 0.75 per share, is proposed to be paid to shareholders registered in the Company's register of shareholders maintained by Euroclear Finland Oy on the record date for the first dividend instalment 8 April 2024. The Board proposes that the payment date for the first dividend instalment would be on 16 April 2024.

The second dividend instalment, EUR 0.75 per share, is proposed to be paid to shareholders registered in the Company's register of shareholders maintained by Euroclear Finland Oy on the record date for the second dividend instalment 31 October 2024. The Board proposes that the payment date for the second dividend instalment would be on 7 November 2024.

FINANCIAL REPORTS IN 2024

UPM will publish the financial reports in 2024 as follows:

- UPM Interim Report for January–March (Q1) on 25 April 2024
- UPM Half Year Financial Report for January–June (Q1–Q2) on 23 July 2024
- UPM Interim Report for January–September (Q1–Q3) on 29 October 2024

➤ Read more on the global forest responsibility programme Forest Action on page 82.
➤ www.upm.com/responsibility

