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ABOUT CLIMATE REVIEW

This Climate Review is a compilation of UPM Raflatac's climate news and insights on our journey beyond fossils. The progress reviewed includes UPM Raflatac factories as of 1.1.2023. The Forests and Land target review includes all UPM Raflatac factories except for the production site in Hagenow, Germany, which was acquired in 2022. External verifications and collaborations are mentioned where relevant.





LEADING THE WAY IN SUSTAINABLE LABELING

With our ambition to be the world's first label materials company beyond fossils, we at UPM Raflatac are committed to creating a smarter future for the packaging industry. We believe that labels can make a difference in reducing the environmental impact of packaging.

In 2023, we made significant progress in our sustainability journey. At the end of 2023 we reached our sourcing and climate target of 100 percent certified papers, six years ahead of time.

We launched new wash-off paper label materials that improve the recyclability of PET and HDPE packaging, two of the most widely used plastics in the world. We also extended the scope of our CarbonNeutral® certified products to cover the entire lifecycle of the label. This development builds on our Life Cycle Assessment service, Label Life, which recently received a new certificate of validity from leading international assurance service provider, DEKRA.

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

We developed our RafCycleTM by UPM Raflatac label waste recycling service further by selecting Soprema as our main partner in label waste recycling in the EMEIA region. The company now supports the RafCycle recycling process by transforming label waste into new construction and insulation materials.

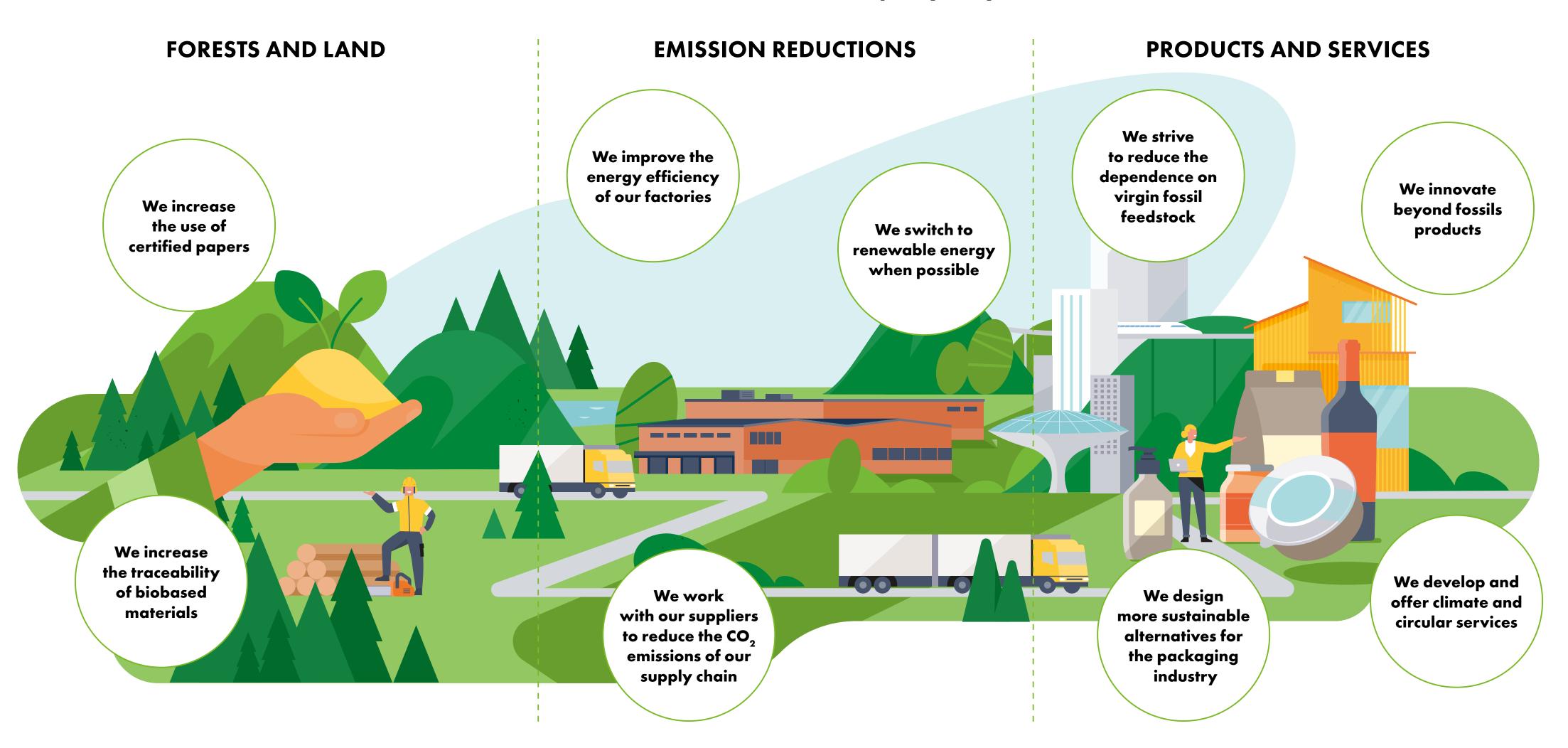
These are just some of the highlights of our sustainability performance in 2023. We are grateful for the collaboration and support of our customers, suppliers, and partners, who share our vision and ambition to create a smarter future beyond fossils. Together, we can make a positive impact on the climate and society.

ANTTI JÄÄSKELÄINEN

Executive Vice President, UPM Raflatac

UPM RAFLATAC'S AMBITION

The world's first label materials company beyond fossils



Our ambition is to be the world's first labels materials company beyond fossils. To make this vision a reality, our climate actions are based on three focus areas: forests and land, emission reductions, and products and services. With these focus areas, we aim to reach the climate targets we have set for ourselves for 2030.

WE ACT THROUGH FORESTS AND LAND

At UPM Raflatac, we recognize the vital role that well-managed forests and land play in our business continuity and their impact on mitigating climate change. Taking care of these valuable resources benefit the whole environment and society.

A significant portion of our label materials features certified sustainable paper face or release liner materials. Our ambitious goal was to achieve 3rd party forest certification for all of our paper raw materials by 2030. In 2023, we already reached an impressive 89% certification level. Starting from 2024, all our purchased papers are certified, reinforcing our commitment to sustainable sourcing. Our operations carry both FSCTM (FSC C012530) and PEFC (PEFC/02-31-196) chain of custody certifications.

TRACING THE PATH OF BIOBASED MATERIALS

As the demand for renewable solutions grows, so does our responsibility to ensure the sustainable origin of biobased raw materials. Beyond certified papers, we also aim at having 100% of the other biobased materials traceable by 2030. These include tackifiers, alternative fibers, natural latex, and biobased films.

To achieve this goal, we collaborate closely with our suppliers, enhancing transparency across the value chain.



WHAT IS FSC?

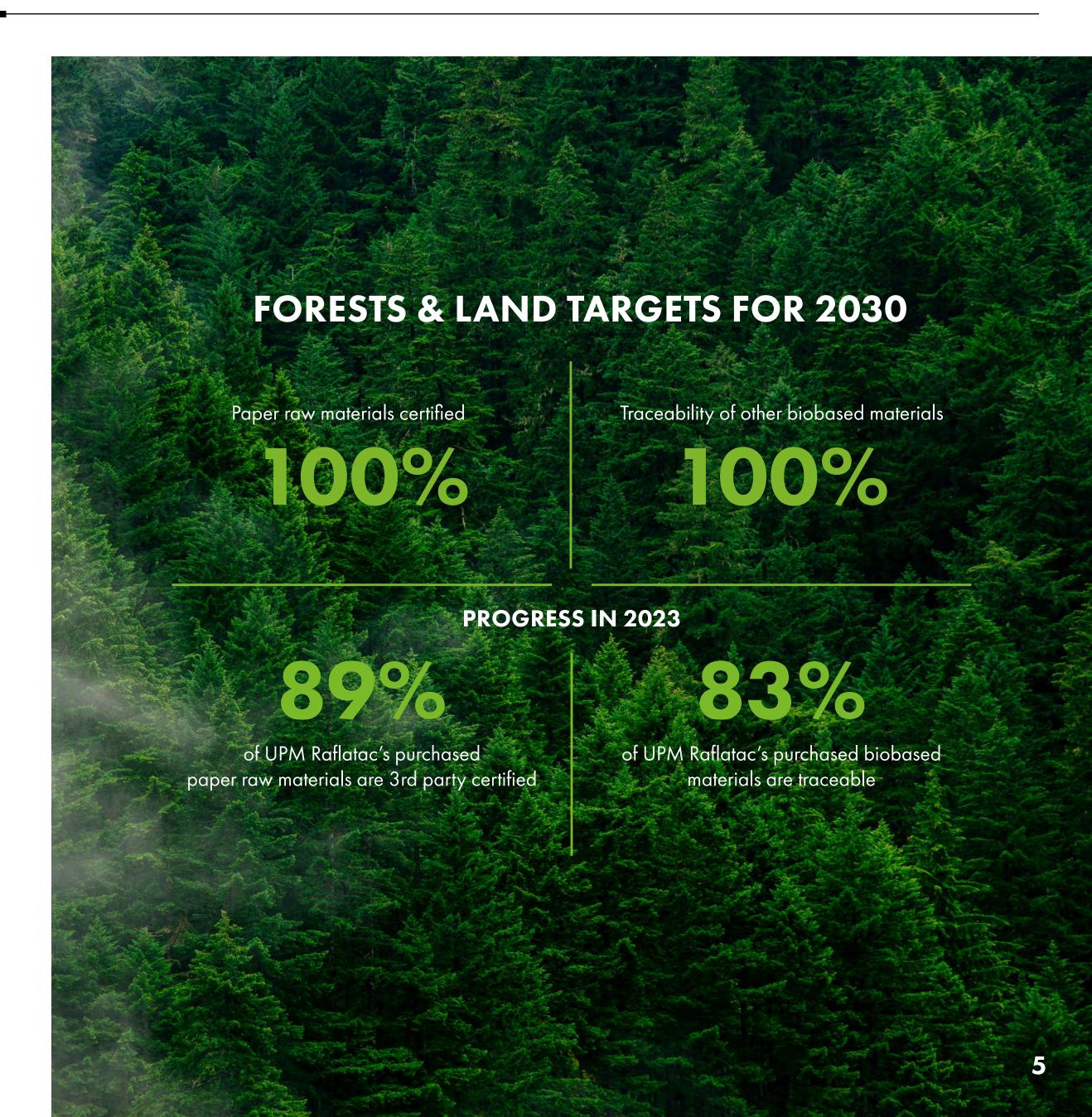
The Forest Stewardship CouncilTM (FSCTM) is a global, not-for-profit organization dedicated to the promotion of responsible forest management worldwide. FSC defines standards based on agreed principles for responsible forest stewardship that are supported by environmental, social, and economic stakeholders.



WHAT IS PEFC?

PEFC, the Program for the Endorsement of Forest Certification, is a global alliance of national forest certification systems.

As an international non-profit and non-governmental organization, PEFC is dedicated to promoting sustainable forest management through independent third-party certification.



ALL PAPERS CERTIFIED - A REMARKABLE MILESTONE FOR RESPONSIBLE SOURCING AND CLIMATE ACTION

Paper is by far the highest volume raw material component in UPM Raflatac self-adhesive labels, and therefore we have no room for compromises in sustainability. At the end of 2023 we reached a remarkable milestone when we achieved our target of 100% certified paper six years ahead of time. In practice it means that all papers we source from year 2024 onwards, whether used as a face paper or a release liner in our labeling materials, are certified under a credible third-party forest certification scheme. Purchasing only certified paper is one of our 2030 responsible sourcing and climate targets.

COLLABORATION IS THE KEY

We believe that third-party forest certification is one of the keyways to ensure the sustainability of our paper supply chain, along with supplier assessment, related development activities, and continuous risk monitoring and management.

As our paper face and liner materials come from a large number of paper supplier sites, reaching this goal required systematic work and close collaboration with our suppliers. Increasing the share of certified papers was discussed in annual negotiations with the suppliers who supported our target by lowering and removing the hurdles of this development.

WALKING THE EXTRA MILE

Reaching the target six years ahead of time also required that our whole organization played its role and was committed to going the extra mile.

"Achieving 100 % certified papers was our ambitious goal for 2023, and we are proud to say that we made it. It was not an easy task, as it involved a lot of collaboration and coordination across different regions and functions. The final stretch was especially challenging, but we did it together, as a team, and we are grateful for the hard work and dedication of everyone involved," says Marko Haveri, Category Director, Paper Sourcing at UPM Raflatac.

The quickly evolving regulatory environment puts a growing pressure on companies to improve the traceability of their raw materials as well as responsible sourcing practices. By having all its papers certified under FSCTM (FSC C012530), PEFC (PEFC/02-31-196) or PEFC-endorsed forest certification systems, UPM Raflatac can support its customers in achieving their responsible sourcing targets.



FORESTS & LAND

EMISSION REDUCTIONS



Reducing the use of fossil fuels is the most important way to mitigate climate change. At UPM Raflatac, we aim to reduce the emission intensity of our operations - scope 1 & 2 emissions - by 65% from 2015 baseline year by 2030. In 2023, our total scope 1 & 2 emissions emitted when producing a million m² of label material were 36% lower than in 2015. The work towards decarbonizing our operations will continue in line with our action plans for 2030.

SCOPE 1: EFFICIENCIES IN OUR FACILITIES

Scope 1 emissions include emissions that emanate directly from our facilities, mainly caused by on-site combustion of fuels like natural gas. Actions taken in many of our facilities to reduce fuel use and Scope 1 emissions include:

- better management of heated air by recirculating it when possible
- insulating process equipment to minimize heat loss or gain associated with heated and cooled air and fluids
- improving insulation in our facilities to reduce fuel use and make them more comfortable
- fine-tuning of combustion units to increase fuel use efficiency

SCOPE 2: SUSTAINABLE ENERGY CHOICES

Scope 2 emissions are those associated with purchased electricity. In 2023, six of twelve factories used 100% renewable electricity. Although renewable electricity contracts have a significant impact on our factories' carbon footprint, we have also taken energy efficiency actions over the years. They include:

- retrofitting facilities with LED lighting
- installing motion sensors to control lighting
- setting temperature set points to control the amount of energy used to heat and cool facilities
- installing energy monitoring systems to accurately identify where energy leaks are occurring, so they can be mitigated or fixed.

SCOPE 1 & 2 TARGET FOR 2030

-65%

reduction in Scope 1 & 2 emissions, per million m² produced, compared to 2015 baseline

PROGRESS IN 2023

-36%

reduction in Scope 1 & 2 emissions, per million m² produced, compared to 2015 baseline

WHAT ARE SCOPE 1 EMISSIONS?

Emissions caused by company's own actions, mainly from energy generation.

WHAT ARE SCOPE 2 EMISSIONS?

Emissions caused by purchased energy: power, steam, heating, and cooling.

SCOPE 3: REDUCING EMISSIONS IN THE VALUE CHAIN

Addressing scope 3 emissions can be complex. Scope 3 emissions come from the value chain before and after company's own operations, such as greenhouse gas emissions attributable to raw materials, transportation, secondary processing, and end-of-life management. As the emissions originate from various activities, different solutions and actions are needed to address them.

We aim to reduce our Scope 3 emission intensity by 30% by 2030 from the 2018 baseline. Our primary focus is on reducing emissions related to raw materials and transportation. We estimate that raw material choices account for up to 90% of labels' cradle-to-grave carbon footprint. Through smarter use and choice of raw materials, we can address some of the related emissions. This aligns with our responsible sourcing target of increasing the use of renewable and recycled raw materials.

The UPM Group-wide -30 by 30 program launched in 2022 aims to reduce emissions from the most significant sources in our value chain. In the current, early phases of the program, we focus on collecting emissions data and determining an accurate baseline for the products and services we purchase from our partners. New and existing suppliers are required to provide carbon footprint data on goods and services sold to UPM, including all relevant emissions from the supplier's upstream supply chain and operations. In the long run, we aim to profoundly change the way decisions are made in our procurement and product development.

WHAT ARE SCOPE 3 EMISSIONS?

Emissions from value chain before and after the company's own operations, such as purchased goods, transportation, further processing, and end-of-life.

SCOPE 3
TARGET FOR 2030

-30%

reduction in Scope 3 emissions from raw materials and transportation, per million m² produced, compared to 2018 baseline

PROGRESS IN 2023

-2%

reduction in Scope 3 emissions from raw materials and transportation, per million m² produced, compared to 2018 baseline



NOWA WIEŚ FACTORY TAKES STRIDES IN SUSTAINABILITY

The awareness of climate challenges and the drive to improve processes resonate deeply with the employees of the UPM Raflatac Nowa Wieś factory in Poland. This shared understanding fuels the factory's continuous efforts to innovate and enhance its climate impact contributing to the company's goal of being the world's first label materials company beyond fossils.

Energy efficiency is not just a concept but an everyday practice at the Nowa Wieś factory. The team's engagement and motivation are easy to notice, with an internal improvement proposal program that empowers every employee to suggest enhancements.

"These suggestions have led to significant reductions in energy consumption, from optimizing lighting adjustments to refining the drying process, showcasing the collective effort in reducing the factory's carbon footprint," says Markku Havonen, General Manager, Nowa Wieś Factory.

IMPLEMENTING COMPANY-WIDE SUSTAINABILITY PROGRAM LOCALLY

Since 2021, Nowa Wieś has been powered by renewable electricity generated from sources like wind, solar, and hydropower.

The use of renewable electricity is a key component of UPM Raflatac's Biofore Site™ program, which aims to improve the sustainability performance of the company's manufacturing sites. Local actions and progress is communicated by using a Biofore Site scorecard that measures key performance indicators related to operations, including waste, energy, diversity, well-being, and safety, aligned with the United Nations' Sustainable Development Goals (SDGs).

"The Biofore site concept is not just visible but vibrantly alive within the factory's operations. Factory's water usage reduction project resulted in a remarkable 40% decrease in wastewater, exemplifying the site's dedication to resource conservation. Moreover, the focus on health and wellbeing, along with responsible consumption and production, underscores the holistic approach to sustainability that UPM Raflatac champions," Havonen says.

INVESTING IN LINERLESS LABELS

The Nowa Wieś factory produces a wide range of filmic, sheet, and specialty products. Since 2017, linerless labels have been a part of the factory's offering. In 2021, UPM Raflatac invested in a new linerless coating line and increased slitting and packing capacity increasing the company's Direct Thermal (DT) Linerless annual production capacity by 100 million m². The new production line has been operational since 2022.

Direct Thermal (DT) linerless labeling is a cost-efficient and more sustainable alternative to traditional label stock. Sustainability and efficiency benefits are significant as linerless brings up to a 40 percent reduction in material usage. By offering a more sustainable alternative to traditional label stock, the factory is actively contributing to the reduction of waste and supporting end-users in achieving their sustainability targets.

WE ACT THROUGH PRODUCTS AND SERVICES

DRIVING CLIMATE ACTION THROUGH PRODUCTS AND SERVICES

Sustainable products and services play a key role in the global effort to mitigate climate change. We equip our customers with products and services that not only allow them to take climate action but also promote the circular economy. Our ongoing commitment is to enhance the proportion of renewable and recycled materials in our offerings, thereby reducing our reliance on virgin fossil resources. This is our vision of a future beyond fossils.

PIONEERING SUSTAINABLE SOLUTIONS

Our SmartChoiceTM and SmartCircleTM product portfolios are designed to facilitate smart label material selections, aligning with the sustainability goals of Reduce, Renew, Recycle, and Reuse.

SmartChoice products offer our customers the opportunity to opt for resource-optimized label materials, thereby diminishing their environmental footprint and reducing the strain on natural resources. These products also aid in reducing the use of virgin feedstocks by shifting to label materials that include recycled materials or those made with certified sustainable and renewable resources.

SmartCircle products, on the other hand, promote the circular economy by providing customers with compatible label materials that enhance packaging recyclability or allow reuse.

OUR SERVICES SUPPORTING SMART CHOICES

Our sustainability services complement our product offerings. They assist our customers in reducing fossil carbon emissions related to labeling materials and supporting the circular economy.

Our Label Life by UPM Raflatac service enables customers to look beyond the label by calculating the impact of their labels and of the switch to a more sustainable choice. Label Life is based on Life Cycle Assessment (LCA), a scientific methodology for analyzing the environmental impacts of products.

Our RafCycle™ recycling service is a hands-on recycling solution. It enables the circular economy and allows our customers to take climate action by having their release liner waste collected and recycled through our service.

Read more:

Sustainable Labels website | UPM Raflatac

Label Life, Label Life service | UPM Raflatac

RafCycle, RafCycleTM recycling services | UPM Raflatac



REDUCE

Lower your environmental impact and reduce the strain on natural resources by using label materials that are resource optimized.



RECYCLE

Reduce the pressure on using virgin feedstocks by shifting to label materials that include recycled materials.



Move beyond fossils by choosing label materials made with verified sustainable and renewable resources.



RECYCLING & REUSE

Support the circular economy by choosing compatible label materials that enhance packaging recyclability or allow for reuse.





In 2023, we launched several products and services that support the circular economy and enable taking climate action.

PURECYCLE - A BREAKTHROUGH SOLUTION FOR PLASTIC RECYCLING

One of our breakthrough products was the new PureCycle wash-off paper label materials, designed to enable efficient recycling of HDPE and PET plastic packages, like bottles and containers. The labels made of certified paper detach during the washing process, allowing the valuable PET and HDPE flakes to be recovered without contamination. The flakes can be converted into new high-quality materials and may also be used within the closed-loop systems. The label materials which are part of UPM Raflatac's SmartCircle™ portfolio have received European certifications of recyclability from Institut cyclos-HTP for PET and HDPE packaging.

ENABLING OUR CUSTOMERS TO OFFER CARBONNEUTRAL® CERTIFIED PRODUCTS

We extended the scope of our CarbonNeutral® certified labeling materials to cover the entire lifecycle emissions of a label. This means that our customers can offer their printed and converted labels as CarbonNeutral® certified products. The certification is built on our Label Life Life Cycle Assessment service, which has been validated by DEKRA, an international assurance service provider. UPM Raflatac's CarbonNeutral® certified products include the linerless label range with solutions designed for direct thermal linerless main end uses, including hospitality, e-commerce and logistics, and grocery retail.

The CarbonNeutral® certified products also include pressure-sensitive labels in the lower-carbon range RAFNXT+ designed for a variety of labels used in food, logistics, and home care packaging. These products have lower carbon footprints compared to standard label materials. In addition, we compensate for currently unavoidable cradle-to-grave GHG emissions of our CarbonNeutral® certified labels.

LOOKING FORWARD

SUSTAINABLE STICKY NOTES FOR EVERY OCCASION

We also launched the new <u>UPM Notes portfolio</u> including a selection of different colored sticky note pads and cubes made of FSCTM-certified (FSC C003094) paper. At UPM Raflatac, we are constantly looking for ways to reduce the carbon footprint of our products. For the recently launched UPM Notes portfolio, this means renewing the packaging. Instead of the market standard fossil-based wrapping, the notes are thoughtfully wrapped in transparent FSC-certified paper, which is renewable and recyclable.

Our product developments in 2023 reflect our ambition to be the world's first label materials company beyond fossils. By offering products and services that support the circular economy and enable taking climate action, we are labeling a smarter future beyond fossils.

STUNNING LABELS WITH RECYCLED FIBERS

In 2023 we launched a new collection of wine, spirits and beverage label materials that embrace circularity by using recycled fibers in aesthetically attractive labels. The new collection, called Rêverie 3, demonstrates, via unique collaborations with five leading Spanish designers, that sustainability and impactful design can work together to deliver stunning results.

The Rêverie 3 collection offers packaging designers a toolkit of visually appealing labels that are all made with materials from well-managed, FSCTM certified (FSC C012530) forests, recycled materials, and other controlled sources. With more and more brands now seeing the inclusion of FSC and PCR packaging as a necessity, we wanted to showcase the potential of today's sustainable label materials.

With this in mind, five of the company's responsibly sourced label materials were given to five Spanish design agencies, with the brief to create a new collection. The label designs in the Rêverie 3 collection were created for high end wine, spirits, sparkling cider, craft beer and tomato juice drinks, with excellent execution of the artworks with different printing techniques managed by Gráficas Varias.

THE FIVE UPM RAFLATAC LABEL MATERIALS THAT WERE CHOSEN ARE:

- BIARRITZ WSA PCR-FSC (20% recycled fibers): Natural-colored paper for premium wine and spirits labels.
- DROPS WSA PCR-FSC (100% recycled fibers): Textured and translucent paper for high-quality wine and spirits labels.

- FENIX WSA PCR-FSC (40% recycled fibers): Paper with minimal impurities for high-quality wine and spirits labels.
- HIPSTER WSA PCR-FSC (100% recycled fibers): Warm and elegant white paper for high-quality wine and spirits labels.
- VINTAGE WSA PCR-FSC (30% recycled fibers): Kraft brown paper for authentic and artisanal wine, spirits and beverage labels.

"Thanks to our sustainable supply chain, we are able to offer designers FSC-certified labels that have varying percentages of PCR content, suiting any requirement. Rêverie 3 was already an extraordinary range due to the use of the recycled content. However, what the designers have done with the materials has truly taken it to the next level," Eulalia Alcaraz, Business Director, UPM Raflatac comments.

Read more:

<u>UPM Raflatac launches new collection of responsibly</u> <u>sourced label materials for wine, spirits, and beverage</u>



LOOKING FORWARD





LOOKING BEYOND THE LABEL

Our Label Life service provides essential environmental information of our label materials, using Life Cycle Assessment (LCA), a standardized method for calculating the environmental impact of products. Indicators include greenhouse gas emissions, energy demand and water consumption.

In 2023, we 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.

INCREASED CREDIBILITY AND TRANSPARENCY

With the EU currently developing a digital product passport (DPP) for all products on the market, we have designed our 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.

"We wanted to be industry frontrunners and ahead of the regulations with our new product passport prototype," says Flora D'Souza, Sustainability Manager for Label Life at UPM Raflatac. "We also wanted to ensure that the product passport prototypes are credible and transparent, and that they can withstand external scrutiny. That's why we engaged DEKRA to validate our Label Life service and confirm that we are delivering the highest quality."

Label material choice can have a significant impact on packaging sustainability by supporting recyclability, for example, but also by reducing its overall environmental impact. Label Life has been serving our customers for over 10 years. The new validation by DEKRA reinforces the credibility of our LCA calculations and supports our customers to make better informed choices, bringing them closer to their own sustainability goals. Label Life is available for over 90% of our commercial portfolio by sales volume.

Read more:

<u>Label Life service | UPM Raflatac</u>



Labels are an essential part of a packaging from food and beverage to cosmetics and pharmaceuticals, but labeling also generates waste. The label release liner, the thin layer of paper or plastic that protects the adhesive side of the label, is often discarded after use.

That is why we have developed a circular solution called RafCycle™ by UPM Raflatac, a recycling service that allows our customers to turn their label liner waste into new raw materials. The service was first introduced in 2010 and has since grown to include over 440 partners worldwide.

CIRCULARITY AND COST SAVINGS

We collect the label liner waste from our customers and brand owners, arranging a pickup for the waste and handling its transformation into new products. The service helps our customers avoid incineration or landfill disposal methods, save costs and improve their brand image.

One of the main benefits of RafCycle is that it helps customer to go up in the waste hierarchy and make sure their waste gets a new life as raw materials for different industries.

SIGNIFICANT PROGRESS IN 2023

"Our RafCycle service capabilities and reach has expanded in recent years. In 2023, the number of our

RafCycle partners increased by almost 100 partners. We also took big steps to increase the PET liner recycling capabilities and increased our overall RafCycle capabilities in the Americas," tells Juha Virmavirta, Director, RafCycle, UPM Raflatac about the progress.

At the end of 2023 we partnered with Soprema, a global leader in waterproofing and insulation solutions as our main partner in the EMEIA Region. Soprema, one of the world's leading companies in waterproofing and a specialist in roofing and insulation, will transform the paper release liner waste collected through RafCycle recycling service into new construction and insulation materials.

RafCycle is one of the ways that we are fulfilling our vision of labeling a smarter future beyond fossils. We are committed to innovating for a future beyond fossils and creating value from renewable and recyclable materials. By offering RafCycle, we are enabling our customers to join the journey towards a more sustainable circular future.

Read more:

RafCycleTM recycling services | UPM Raflatac



FORWARD FASTER: ACCELERATING CLIMATE ACTION

In September 2023 UPM published its commitment to the UN Global Compact's Forward Faster Initiative. The goal of this initiative is to accelerate progress towards the 2030 Sustainable Development Goals. Today, only 15% of the Sustainable Development Goals (SDGs) are on track for meeting their target levels by 2030. This reality compels a call for further action also in our industry.

The initiative includes five areas of action: Climate Action, Living Wage, Gender Equality, Water Resilience and Finance & Investment. These five areas have been identified as the fields where the private sector can collectively make the most powerful impact by 2030.

For UPM Raflatac, the topic of Climate Action is in our focus. We have set ourselves the ambition of being the world's first label materials company beyond fossils. We have been developing our activities in three areas for several years already – forest and land, emission reductions, and products and services.

We have ambitious 2030 targets and action plans, but we still have a lot of potential to drive progress faster. A good example of speeding up progress was collaborating with our suppliers to reach our 2030 target of 100 percent certified papers six years ahead of time.

In 2024, we continue focusing on the Scope 3 emissions which play a vital role in the labelling industry's efforts to reduce its environmental impact. Unlike Scope 1 and Scope 2, Scope 3 emissions extend beyond a company's direct control. These emissions occur throughout the entire value chain, including the impacts of suppliers, customers, and other stakeholders. Collaboration is key in decreasing these emissions.

We will continue developing collaboration with our suppliers to develop lower carbon footprint products. We also need to identify new technologies that reduce energy and fuel consumption in our own operations and in supply chains. Scope 3 emissions reductions are critical for the labelling industry if we want to move Forward Faster and deliver on our climate ambition.

ROBERT TAYLOR

Director, Sustainability, UPM Raflatac



