



PRESS RELEASE

Metsä Group and ANDRITZ to construct a demo plant for developing new lignin products

GRAZ/HELSINKI, MARCH 22, 2024. Metsä Group will construct a demo plant for lignin refining in connection with its Äänekoski bioproduct mill. The equipment will be supplied by technology group ANDRITZ. Construction will begin in summer 2024, and the demo plant will be completed in late 2025. The plant's daily capacity will be two tonnes of the lignin product.

Lignin is a substance in wood that binds wood fibres together. In pulp production, lignin is separated from the fibres into black liquor in the chemical cycle and used as bioenergy. Lignin could also be used in chemical and material applications.

Metsä Group and ANDRITZ will focus on developing the production process of the new lignin product and its integration with the bioproduct mill, as well as the product properties suitable for various end uses. The demo plant project also involves Dow, a leading material science company, which will develop high-performance bio-dispersant plasticizers for concrete and gypsum applications, based on the lignin product produced at the plant.

"Our goal is to efficiently use the side streams of pulp production and ensure they produce the greatest possible added value. We want to develop new products made from renewable natural resources that can replace fossil-based raw materials and products," says **Ismo Nousiainen**, CEO of Metsä Fibre, part of Metsä Group.

ANDRITZ has been developing lignin recovery and modification technology concepts as part of its initiative to enable pulp mills to convert side streams into value-added products. **Kari Tuominen**, CEO & President of ANDRITZ Oy, states: *"We are thrilled to be able to test this technology in continuous process conditions at the Äänekoski bioproduct mill. In addition to validating markets for the new lignin product, the demo scale gives us valuable insights for integrating the LigniOx process into a bioproduct mill and scaling it up for industrial use."*

"At Dow, we are committed to collaborating with stakeholders to innovate and bring more sustainable solutions to the market," says **Raquel Fortes**, Global Business Director of Dow Construction Chemicals. *"This new technology would further expand Dow's bio-based product offerings to meet the future needs of the building and construction industry."*

In a pilot-scale EU project coordinated by VTT Technical Research Centre of Finland, Metsä Group, ANDRITZ and Dow have already demonstrated the suitability of modified lignin as a replacement for fossil-based chemicals in concrete production.





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The Äänekoski mill area is Metsä Group's largest, housing a paperboard, veneer and bioproduct mill. Äänekoski is also home to Metsä Group's demo plants for the Kuura textile fibre and Muoto fibre product.

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PRESS RELEASE AVAILABLE FOR DOWNLOAD

The press release is available for download at andritz.com/news.

FOR FURTHER INFORMATION, PLEASE CONTACT

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ANDRITZ GROUP

International technology group ANDRITZ offers a broad portfolio of innovative plants, equipment, systems, services and digital solutions for a wide range of industries and end markets. Sustainability is an integral part of the company's business strategy and corporate culture. With its extensive portfolio of sustainable products and solutions, ANDRITZ aims to make the greatest possible contribution to a sustainable future and help its customers achieve their sustainability goals. ANDRITZ is a global market leader in all four of its business areas – Pulp & Paper, Metals, Hydropower and Environment & Energy. Technological leadership and global presence are cornerstones of the group's strategy, which is focused on long-term profitable growth. The publicly listed group has around 30,000 employees and over 280 locations in more than 80 countries.

ANDRITZ PULP & PAPER

ANDRITZ Pulp & Paper provides sustainable technology, automation, and service solutions for the production of all types of pulp, paper, board and tissue. The technologies and services focus on increased production efficiency, lower overall operating costs as well as innovative decarbonization strategies and autonomous plant operation.

The product portfolio also includes boilers for power generation, various nonwoven technologies, and panelboard (MDF) production systems. With waste-to-value recycling, shredding and energy solutions, waste and by-product streams from production are converted into valuable secondary raw materials as well as into sustainable resources for energy generation. State-of-the-art IIoT technologies as part of Metris digitalization solutions complete the comprehensive product offering.

METSÄ GROUP

Metsä Group has its roots in the Finnish forest: our parent company Metsäliitto Cooperative is owned by more than 90,000 forest owners. We make wood products that people around the world need every day. We focus on wood supply and forest services, wood products, pulp and paperboards, and tissue and greaseproof papers. We are committed to regenerative forestry that measurably strengthens the forest ecosystem. We promote a culture of diversity, equality and inclusion.

In 2023, our sales totalled EUR 6.1 billion, and we have approximately 9,500 employees.