

Media Release

Voith Paper

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Voith and partners announce FOREST initiative: Research project aims to develop digital framework for optimizing energy and material flows in paper production

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- FOREST research project launched in cooperation with renowned partners from industry and research
- Goal is to build a digital framework that will enable effective process optimization and predictive benefit assessment
- Project aims to support the paper industry's transformation towards climate neutrality

HEIDENHEIM, GERMANY. Voith, the leading global technology group for the paper industry, has launched a new research project called FOREST together with partners from industry and research. The goal of the project is to develop a fully comprehensive digital map for papermaking processes that can capture energy and material flows, as well as CO₂ flows and footprints, down to the sub-process and sub-product level. The digital framework identifies multiple optimization opportunities that promote a targeted acceleration of the paper industry's transformation toward climate neutrality.

By visualizing the actual state of the production facilities, all stakeholders gain a deeper understanding of the processes. In particular, the innovative solution makes it possible to identify plant areas with high optimization potential during ongoing operation using current data. With the help of the digital framework, for example, the optimum settings for minimized CO₂ emissions can be determined and the benefits of rebuild measures can be estimated in advance. In addition, the digital framework supports the definition of requirements for future developments. In this way, the influence of new framework conditions, such as changes in energy supply or costs, can be modeled.

After the first kick-off meeting, the project team is now working to define the requirements and interfaces for the framework and derive a requirements catalog. In addition to a physical basic model, this framework also includes specific, more detailed modeling of individual sub-processes, which are also being developed by Voith as part of the project. In the next step, Voith will test the digital framework together with the other research partners on various pilot installations.

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The research project was approved by the project management organization Jülich as of April 1, 2023. The project involves cooperation between Voith and Modellfabrik Papier gGmbH, the Institute of Textile Technology at RWTH Aachen University (ITA), the NOWUM-Energy Institute at FH-Aachen University of Applied Sciences, the Chair of Wood Technology and Fiber Materials Technology at TU Dresden, the Paper Technology Foundation (PTS), ABB AG and associated partners such as Felix Schoeller GmbH & Co. KG, Sappi Eningen GmbH, Schoellershammer GmbH and WEPA Group.

About the FOREST research project

FOREST stands for “**F**ramework **f**Or **R**esource, **E**nergy, **S**ustainability **T**reatment” in paper production. The work is funded by the German Federal Ministry of Economics and Climate Protection as part of the German government's 7th Energy Research Program. Further information can be found at: [BMWK - Energy Research and Innovation](#).

About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, paper, raw materials and transport & automotive. Founded in 1867, the company today has around 20,000 employees, sales of € 4.3 billion and locations in over 60 countries worldwide and is thus one of the larger family-owned companies in Europe.

The Group Division Voith Paper is part of the Voith Group. As the full-line supplier to the paper industry, it provides the largest range of technologies, services and products on the market and offers paper manufacturers holistic solutions from one source. The company's continuous stream of innovations facilitates resource-conserving production and helps customers minimize their carbon footprint. With its leading automation products and digitalization solutions from the Papermaking 4.0 portfolio, Voith offers its customers state-of-the-art digital technologies to improve plant availability and efficiency for all sections of the production process.



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Voith has set the ambitious goal of achieving CO₂-neutral paper production by 2030.

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