

# Moving from black to green: Development of biorefinery processes and products in Norway

*Thursday 10 March 2016 09:00 (45 minutes)*

Norway has significant forestry resources and ever since the late 18th century pulp and paper production has been central to the on-shore national value creation, ensuring activities along the whole forest based value chain. In 1969 oil was discovered on the Norwegian continental shelf, and since the early 1970s the expanding oil industry has ensured long-term wealth and welfare to the Norwegian society. During recent decades, however, increasing environmental concern has shifted the focus of research and innovation to strengthen the development of novel, environmentally benign processes and products based on biomass.

Paper and Fibre Research Institute (PFI) is a central stakeholder focusing on research and development of new processing schemes and products based on green biomass resources. PFI is an independent research institute and has performed research on biomass conversion ever since its establishment in 1923. Since 2004 PFI has been part of the Swedish INNVENTIA group, an internationally leading concern in biomass conversion/biorefining.

Today PFI's research is centered around 4 focus areas:

- Fibre and paper
- Biorefinery and bioenergy
- Biocomposites
- Nanocellulose and carbohydrate polymers

The presentation will give examples of PFI's research activities within all these areas.

In 2013-2014 PFI initiated and coordinated the establishment of the central national infrastructure project NorBioLab (Norwegian Biorefinery Laboratory), funded by the Norwegian Government through the Research Council of Norway. NorBioLab is a national infrastructure for biorefining, accessible to national and international stakeholders for the development of processes for the sustainable conversion of land and marine biomass to novel, environmentally benign biochemicals, biomaterials and bioenergy products. NorBioLab is headed by PFI and gathers central Norwegian stakeholders in the biomass conversion area, including The Norwegian Univ. of Science and Technology (NTNU), The Norwegian Univ. of Life Sciences (NMBU) and SINTEF. By uniting existing knowledge and infrastructures as well as supporting the establishment of novel research tools, NorBioLab shall allow for internationally leading research on new, innovative biorefinery processes.

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