

## Recent investments in Stora Enso Biomaterials

### SUNILA

EUR 32 million investment in building a world-class biorefinery at Sunila Mill in Finland, which will reduce the CO2 emissions of the mill by replacing up to 90% of natural gas by lignin extracted from the black liquor. It will enable global specialty chemical and high-tech material customers to replace fossil raw materials with renewable alternatives. Stora Enso is developing new applications in which lignin provides added value as a natural polymer.

Production is scheduled to start up during the first quarter of 2015.

The investment was announced in July 2013.

### VIRDIA

Stora Enso acquired 100% of the shares of the US-based company Viridia, a leading developer of extraction and separation technologies for conversion of cellulosic biomass into highly refined sugars and lignin. The upfront debt-free transaction value is approximately USD 33 million (EUR 24 million) with additional potential payouts totalling approximately USD 29 million (EUR 21 million) following completion of specific technical and commercial milestones by 2017.

The acquisition supports the vision of Stora Enso Biomaterials of becoming a significant player in biochemicals and biomaterials.

The acquisition was announced in June 2014.

### DEMONSTRATION PLANT

An investment of EUR 32 million (USD 43 million) in a demonstration and market development plant to be built at Raceland, Louisiana, USA. The plant will be used for industrial validation of the newly acquired extraction and separation technology developed by Viridia that enables cellulosic biomass, such as wood or agricultural waste, to be converted into highly refined sugars. The investment serves the feasibility of the technology on industrial scale in the future, possibly also in some of Stora Enso's existing pulp mills.

The demonstration plant is scheduled to start production early 2017.

The investment was announced in September 2014.



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