

4th SYMPOSIUM ON BIOTECHNOLOGY APPLIED TO LIGNOCELLULOSES

19-22 JUNE 2016 MADRID

Dear colleagues,

On behalf of the organizing committee, it's our pleasure to announce the upcoming 4th Symposium on Biotechnology Applied to Lignocelluloses (Lignobiotech IV) which will be held on June 19-22, 2016, at the CSIC downtown campus, Madrid, Spain.

The evolution from ICBPPI (International Congress on Biotechnology in the Pulp and Paper Industry) to Lignobiotech Symposium was based on the convenience to share the knowledge on biotechnologies acquired in the area of pulp and paper manufacture with the community working in the more general field of biomass transformation.

Now we cordially invite you to participate in Lignobiotech IV Symposium in Madrid, after successful editions in Reims (France, 2010), Fukuoka (Japan, 2012) and Concepcion (Chile, 2014). Lignobiotech IV aims to bring together the most recent advances from fundamentals to application related to the use of biotechnology for the production of biofuels, chemicals and other products from cellulose, hemicellulose, lignin and other lignocellulose components. Lignobiotech IV will cover genomic, biochemical, technological, downstream processing and environmental issues.

Basic information on the conference, venue and accommodation can be found at the symposium website: www.lignobiotech.es, whose other contents will be updated in the upcoming months.

We hope to see you in Madrid next year!

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Borregaard ASA: Borregaard and Rayonier Advanced Materials announce intention to invest in a new 150,000 tonnes lignin operation in the US Borregaard and Rayonier Advanced Materials (RYAM) have entered into a non-binding letter of intent regarding the establishment of a new lignin operation adjacent to RYAM's Fernandina Beach pulp mill in Florida. The new company will be owned 55% by Borregaard and 45% by RYAM.

The Fernandina Beach mill manufactures specialty cellulose and lignin raw material as coproducts from softwood. Utilising Borregaard's know-how and technical expertise, the new company will initially manufacture lignin products suitable for concrete admixture and similar applications targeting primarily the North and South American markets. The products will be marketed through Borregaard's international sales network and will represent a 30% increase in the lignin sales volume at full capacity.

It is anticipated that the project will be completed in two phases over 5 years. The parties estimate an aggregate USD 110 million for a capacity of 150,000 metric tonnes dry substance per year. The first phase is expected to commence commercial operations in 2017. The new operation will benefit from the development work in the BALI project, and takes priority over a first BALI plant. Longer term, the BALI technology remains a strategic lignin raw material option for Borregaard.

Completion of the new operation is subject to board approval by both companies and conclusion of definitive agreements, as well as final engineering, refinement of capital estimates, and obtaining required permits and other approvals. "The Fernandina Beach project represents an excellent growth opportunity for our lignin business in a global market which for some time has been supply constrained", says Per A. Sørlie, President and CEO of Borregaard.

"Pursuing this opportunity with the leader in lignin-based chemistry significantly enhances the prospects for success while reducing operational and market-based risk," says RYAM CEO Paul Boynton. Borregaard operates the world's most advanced biorefinery. By using natural, sustainable raw materials, Borregaard produces advanced and environmentally friendly biochemicals, biomaterials and bioethanol that replace oil-based products.

The Borregaard Group has 1080 employees in 16 countries and a turnover in 2014 of approx. NOK 4 billion (USD 500 million) to close to 100 countries worldwide. The lignin business constitutes close to 50% of the Group's turnover with plants in 7 countries.

Rayonier Advanced Materials (RYAM) is the leading global supplier of high-purity, cellulose specialties natural polymers for the chemical industry. The Company has more than 1200 full time employees and reported USD \$958 million in revenue in 2014. Rayonier Advanced Materials is consistently ranked among the United States' top 50 exporters and delivers products to 79 ports around the world, serving customers in 20 countries across five continents.

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