

## Corporate Innovation Challenge Template

**Challenge Name: BRG1 - Bio aromatics from lignosulfonates**

**Code Name: BIOECONOMYVENTURES-2022-OC2-BRG-1**

**Challenge Domain:**

- Platform and Specialty Bio-based Chemicals
- Bio-based Fragrances, Cosmetics and Personal & Home Care

**Description of the Corporate innovation Challenge**

The company see a business opportunity in depolymerisation of lignins (Kraft lignins, hydrolysis lignins og lignosulfonates) into aromatic compounds (monomers and oligomers). For such a process to be of commercial interest, the combined yields must be high, in the range of 80% total yield into precursors for chemicals, less than 20% loss to char and volatile gases. The process can not happen in extremely diluted solution and should avoid organic solvents and heavy metal homogenous catalysts.

- Novel process  
and/or
- Establishing a collaborative R&D or research project

**Expected results**

The company aim to produce aromatic compound from lignins, either for direct sales or as an intermediate to be further modified by the company and sold as bio-based performance chemicals and/or precursors for plastics, adhesives, binders, polymers, surfactants, and functional additives.

**Types of Collaboration**

Collaborations like RnD collaboration (funded projects or not), licencing technology/knowledge sharing/Tech transfer, purchasing equipment, corporate venturing.

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### Participation confirmation

I confirm Borregaard's availability and participation in the BioeconomyVentures programme. This confirmation allows BioeconomyVentures the right to publicly disclose the company's name, challenge information, logo and website for the purpose of dissemination and attracting new innovators to the programme.

### Company Information

**Company Name: Borregaard AS**

**Challenge owner name and last name: Gudbrand Rødsrud**

**Challenge owner email: [Gudbrand.rodstrand@borregaard.com](mailto:Gudbrand.rodstrand@borregaard.com)**

**Company information:**

Borregaard is a leading biorefinery with commercial manufacturing of more than 700 different chemicals from wood grouped into:

- specialty cellulose (high purity, high Mw, used by our customers for thickeners, filters, plastics etc.),
- high purity microfibrillated cellulose,
- lignosulfonate performance chemicals (hardwood, softwood),
- vanillin from wood and,
- high purity bioethanol from hemicellulose (20 mill litres/y).

Borregaard also have developed a process for co- production of lignosulfonates and cellulosic sugars (3 different grades of purity 90-99%), a process for production of high purity mannose and extractives from spruce and from side streams from sulphite pulping of spruce.

Borregaard continuously develop their biorefinery model to produce more and higher value products from wood, and also looks into ventures into biorefining of other biomass sources and production of bio-based chemicals.

