

Corporate Innovation Challenge Template

Challenge Name: Biobased Long-chain Monoalcohols
Code Name: BIOECONOMYVENTURES-2022-OC2-Ingevity_1
Challenge Domain: <ul style="list-style-type: none"> Platform and Specialty Bio-based Chemicals
Description of the Corporate innovation Challenge
<p>Long-chain monoalcohols such as hydroxyl functionalized polyethylene wax has physical and chemical properties that make them suitable for a wide range of industrial uses including mold release agents, adhesives, plastics, coatings, and other material applications. Monoalcohol functionality provides the linear saturated homopolymer with useful properties.</p> <p>Currently, these are produced via petroleum sources and hence their environmental footprint is not favourable for a sustainable world. Biobased versions of long-chain monoalcohols (also called long-chain fatty alcohols) are limited to C36 or shorter chains such as alkanols obtained from sugarcane wax and beeswax. There is a need to develop longer chain monoalcohols (>C36) from biobased raw materials.</p> <p>We are looking for novel chemical process to obtain longer chains of monoalcohols (>C36) from any type of biobased raw materials. The final product should have renewable carbon content >90%.</p>
Expected results
<ul style="list-style-type: none"> Identify a suitable biobased raw feedstock for this product. Produce a prototype long-chain monoalcohol product with >90% bio-based content. Perform techno-economic analysis (TEA) of the process.
Types of Collaboration
<ol style="list-style-type: none"> Pilot running and product testing R&D opportunity Corporate Venturing New business model exploration (i.e., exclusive distribution, profit sharing, IP sharing ...) Knowledge sharing and Tech Transfer

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Participation confirmation

I confirm **Ingevity** 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: Ingevity

Challenge owner name and last name: Mitra Ganewatta

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Company information:

Ingevity is a leading global specialty chemical manufacturer for products and technologies that purify, protect and enhance the world around us. We are headquartered in North Charleston, South Carolina, and operate manufacturing and technical facilities in the United States, Europe, India and China. We have 14 manufacturing sites including Engineered Polymer division operating out of Warrington United Kingdom. With revenues close to \$1.5 billion and sales in 75 countries, we are a market force in sustainable technologies with roughly 77% of our sales coming from sustainable products. We operate in two reporting segments: Performance Chemicals, which includes specialty chemicals and engineered polymers; and Performance Materials, which includes activated carbon. Our products are used in a variety of demanding applications, including adhesives, agrochemicals, asphalt paving, bioplastics, coatings, elastomers, lubricants, pavement markings, publication inks, oil exploration and production and automotive components that reduce gasoline vapor emissions.

