



Project News

New Biorefinery Project in Estonia will use 50,000 tons of Hardwood each Year

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Sweetwater Energy, a biotechnology company based in Rochester (NY), USA, and AS Graanul Invest, Europe's largest wood pellet producer, based in Estonia, will build a commercial-scale integrated biorefinery that will produce clean cellulosic sugars and highly pure lignin from 50,000 tons of local hardwood each year.

In addition, the plant will allow the two companies to work with corporate partners to create and optimize innovative new products from sugar and lignin. The success of this project will have a tremendous impact on the biomaterials marketplace. The plant will be the first to incorporate Sweetwater's Sunburst pretreatment technology, which splits biomass into its constituent parts faster and more effectively than any commercial process available today. The result is lower greenhouse gas emissions, lower usage of water and chemicals while for the first time deriving significant value from all components of wood. The agreement grants Graanul, which owns 11 large-scale wood-pellet production plants in the Baltics an exclusive territorial license to incorporate the Sunburst technology into its existing plants, as well as into future plants throughout the Baltic States. "Graanul has a long history of innovation in the wood pellet industry, and we're demonstrating that again with our partnership with Sweetwater," says Raul Kirjanen, CEO of Graanul. "Our real-world expertise coupled with Sweetwater's technological advancements will introduce biofuels, biochemicals and other green products at competitive prices into the global markets. The long-awaited cellulosic revolution has just taken a major step forward." "Sweetwater is

excited to be part of this extraordinary program with Graanul,” says Arunas Chesonis, Chairman and CEO of Sweetwater. “The entrepreneurial talent and experienced resources of their team make them an ideal partner in bringing our breakthrough sustainable technology to the world at commercial scale.” “As a global leader in biomass processing, Graanul has been focused on green objectives,” says Peep Pitk, R&D Manager for Graanul. “With Sweetwater and our partners in Europe, this large-scale innovation will allow us to convert virtually 100% of the sustainable and renewable wood processed using this technology into high value carbon products that people use every day.” The fully funded plant is made possible through significant investment and collaboration between the two companies by utilizing Sweetwater’s patented technology and Graanul’s existing infrastructure as one of the largest producers of wood pellets in the world. The patented technology is based on modified, highly reliable twin-screw extrusion systems that operate today around the world in many industries, ranging from plastics to aluminum to food processing. All fuels, plastics, and chemicals have traditionally been made from fossil-derived, prehistoric carbon pulled from the ground, eventually ending up in our atmosphere and oceans. The new Sweetwater-Graanul partnership will compete economically with all of those same products, but will do so by using green, sustainable carbon that trees and crops have taken from the atmosphere. Further, the ingredients produced by this technology are now being tested in new renewable products for food, amino acids, paper products, and even activated carbon for pollution control.