The production of bio-based fuels and chemicals requires renewable feedstocks at affordable costs. Sugar beet (Beta vulgaris) is among the agricultural crops with the highest sugar yields. Süd-Chemie developed a proprietary and innovative technology for the enzymatic liquefaction of whole sugar beets without using a diffusion method or adding any water. A key figure is Süd-Chemie’s own optimized set of enzymes for the liquefaction of beets. Süd-Chemie’s Liquefied Sugar Beet (LSB) process can enhance the content of fermentable sugar resulting from sugar beets, as the LSB fermentation substrate contains everything from the sugar beet root, including sugars from the cellulosic and hemicellulosic part of the plant as well as proteins and minerals. This makes LSB an ideal and complete ready-to-use fermentation substrate. Within the process no sugar beet pulp remains, which is mostly dried for usage as animal feed in a very inefficient way. With the LSB process, Süd-Chemie now offers a highly cost-efficient fermentation substrate derived from sugar beet for a variety of bioprocesses, including production of ethanol, lactic acid or succinic acid. With sales of €1.1 billion, Süd-Chemie AG is a world-wide leader in catalyst and adsorber technology and has an outstanding track-record in chemical and agro-chemical innovations for more than 153 years. With more than thirteen research centres and more than 6,400 employees worldwide, the company is one of the most distinguished companies for innovation in the chemical industry. Süd-Chemie AG actively develops sustainable solutions for the post-petroleum area. One of the solutions is the development of technologies for processing cellulosic biomass into fuels and chemicals.