

Identifying potential short-term offtakers and new emerging markets for a biobased intermediate chemical product



Challenge

The client had a large surplus of a biobased intermediate chemical to sell on the market or take a loss on inventory and needed to find immediate offtakers as well as identify more stable markets to sell into. The client asked Lux to think through all the potential new uses of the biobased intermediate within a 1–2-step chemical synthetic pathway.



Solution

Lux identified contact information for more than 50 potential offtakers for the biobased intermediate; the companies identified operate across various industries from fragrance to solvents to surfactants. In addition, Lux identified three very large opportunities in new chemistries leading to new markets: green bio-jet fuel, clean polycarbonate, and synthetic cannabidiol oil.



Value

The client obtained a list of more than 50 potential customers for their product. More importantly, Lux identified three potential novel uses for the client's biobased intermediate and potential partners based on emerging chemical synthetic routes.

Lux is exploring **alternative uses of limonene** for client

Synthetic Pathway		Potential producers	
Synthesis of terpenoids for the CBD industry	Limonene is a direct precursor of menthadienol used in the synthesis of cannabinoid compounds 		
Biojet Fuels	Bio-based fuels employs mixtures of existing fossil hydrocarbons and 5% limonene 		
Production of polycarbonate from CO₂	Limonene oxide reacts with CO ₂ sequestered from the atmosphere to produce polycarbonate plastics 		