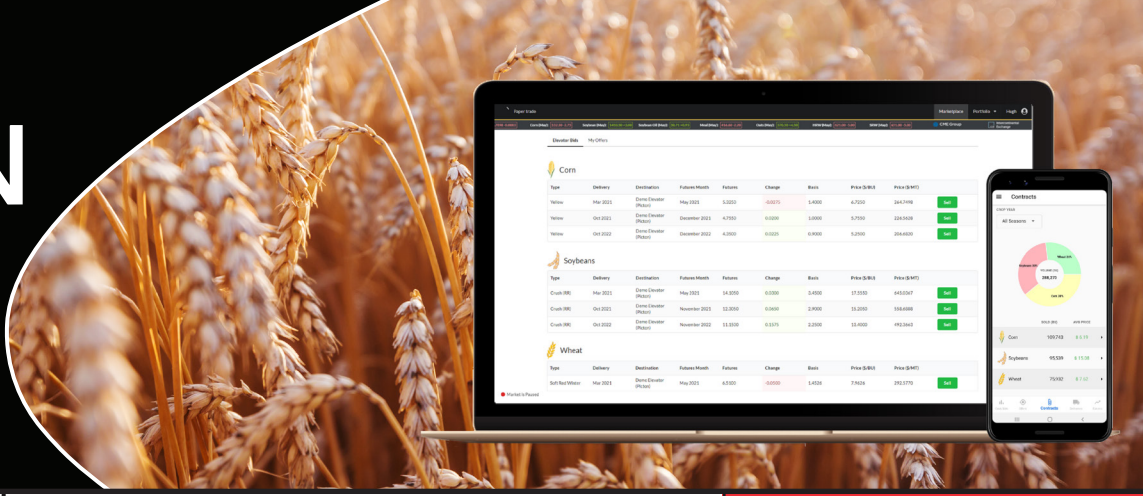


GRAIN DISCOVERY INNOVATION HIGHLIGHT



GRAIN DISCOVERY

COMPANY OVERVIEW


The agricultural industry is set for massive transformations in the next few decades. Technological advances and digitization of the supply chain will allow for the de-commoditization of agriculture. Crops will be grown to cater to consumer demands for traceability, sustainability, and transparency, commanding a marketplace premium. Grain Discovery’s mission is driving farm-to-fork traceability via market incentivization. The company’s marketplace for agricultural commodities provides enhanced traceability for crops using blockchain technology to stamp a “digital passport” along a product’s journey.


LOCATION: PICTON, ON

TECHNOLOGY



Data Centre and Cloud

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THE FOOD WE EAT

Currently, there’s a lack of reliable traceability and transparency in the agricultural supply chain, which negatively impacts all parties. Producers are not receiving premium prices for crops as they are unable to support their claims (e.g. organic products), grain elevator facilities may be buying poor quality or unethically produced crops due to lack of accurate information, and consumers’ growing demand for ethically-produced, low-carbon, or organic products are not being satisfied. Systemic opacity has created an environment where inequitable and unsustainable practices thrive.

FROM FARM TO FORK

The Grain Discovery platform uses blockchain-based traceability to track a crop’s valuable characteristics while it moves through the supply chain, from grower to consumer. The blockchain serves as a common ledger and shared notary for the supply chain, where at each stage, a “digital passport” is stamped to record the product’s journey from farm to table. The goal is for a consumer to ask a question of the blockchain – “is my bread truly low-carbon?”, “are my eggs really organic?”, “has my dinner contributed to rainforest destruction?” and receive a reliable answer.

PLATFORM SCALING TO FULFILL CLIENT NEEDS

Grain Discovery leveraged CENGN’s infrastructure to test the scalability limits of their platform and the speed and latency across the blockchain nodes, simulating concurrent traffic from 10 organizations. The testing results showed Grain Discovery’s current network setup and smart contract implementation meets its required traffic performance at its anticipated network size and user load. Through various migration scenarios, the project successfully helped Grain Discovery confirm its deployment approach when pushing production with multiple clients.

“Thanks to our work with CENGN, we can speak with confidence about our network’s ability to meet the needs of prospective customers.”

Rory O’Sullivan
CEO, Grain Discovery

