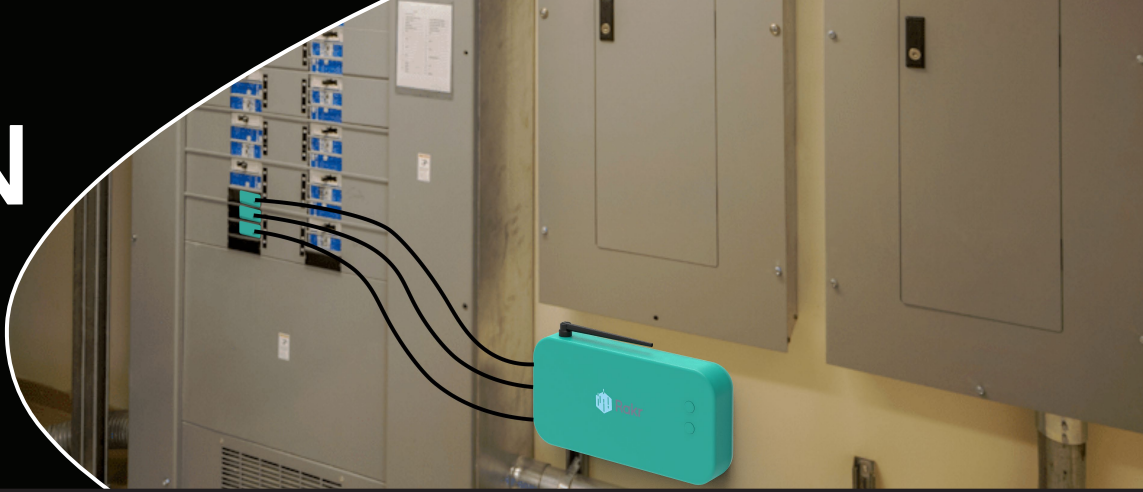# CENGN

RAKR INNOVATION HIGHLIGHT

Rakr

COMPANY OVERVIEW

Rakr is a Canadian agriculture technology company using data and Internet of Things (IoT) solutions to increase energy efficiency and decrease machinery breakdowns in animal husbandry and greenhouse operations. They are driven by the idea that agriculture needs to change to improve the livelihoods of farmers and recover profits that are being eaten away by increasing costs.

LOCATION: TORONTO, ON

TECHNOLOGY

IoT

Internet of Things

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INCREASING FARM SUSTAINABILITY AND PROFITS

Farmers face many challenges that affect their profits. In recent years, trade instability, fluctuating commodity prices, and decreased immigration of temporary labourers have taken a financial toll on farms, no matter their size. As a result, even if harvest yields improve, market conditions make it hard for farmers to increase profits accordingly. These costs prompt many farmers to abandon efforts to increase sustainability.

TRACKING ENERGY CONSUMPTION

Rakr's NeatMeter product is changing this reality by giving farmers the SaaS and IoT tools needed to foster energy efficiency and increase sustainability. Using sophisticated 5G communication technology, the NeatMeter is a hub of sustainable solutions across the farm, allowing farmers to control their operations costs using energy data.

OPTIMIZING GREENHOUSE ENERGY CONSUMPTION

By conducting a project on the CENGN Smart Greenhouse Living Lab, Rakr discovered an opportunity to create a new feature that allows greenhouses to track the energy consumption per shipment of produce and gained a deeper understanding of a greenhouse's most significant operational features. The data acquired through this project allowed Rakr to further develop its predictive maintenance analytics and find ways to further reduce energy consumption in the future. Additionally, this project significantly aided Rakr's goal of decreasing the cost of running NeatMeter.

> "After this project, we will continue to build up the NeatMeter to help greenhouses and market this project as a demonstration of the capabilities we can offer across the country."
>
> **Mohamad Yaghi**
> Co-Founder & CEO,
> Rakr