

Agrilyze

Status: Filled

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Project Description

The agrifood sector is a major part of the British Columbia's economy and an important employer, supporting jobs in many parts of the province especially the Fraser Valley, rural, and coastal communities. The sector, however, is not achieving its potential and suffers from a variety of threats (e.g.: food insecurity, environmental impacts, climate change, labor supply, trade issues) which could be turned into opportunities with planning, cooperation and leadership. At present, there does not seem to be a single, easily accessible portal to provide relevant high-quality data to local researchers, governments or industry but we look to remedy that situation. i-Open Group has combined its spatial and data expertise with emerging AI technologies to build new SaaS platform, **Agrilyze**, to take to the market. The initiative supports food and energy production, environmental cleanup, technology development, and training.

New legislation in British Columbia requires much more diligence from agricultural practitioners in regards to recording, tracking and reporting on what inputs (herbicides/pesticides/fertilizers/manure) are added to a field in order to track what the potential run off/leeching to aquifer occurs.

We would be looking to define sensors and recorders to help identify and record this run-off data, so that we can analyze and display in our platform Agrilyze. We envision that this project would involve researching the legislation to determine key requirements, identifying sensors, tools, devices and putting together a plan to incorporate those, connecting them via LoRaWan network via a gateway, designing the data structure to store the data, and building a prototype device to test in the field.

BACKGROUND

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AGRILYZE

By collecting data into a single repository, amalgamating it, and leveraging it through Machine Learning algorithms and training, Agrilyze accomplishes the outcomes below.

Location Optimization

1. Data capture with mobile device – add detail, location, photo via mobile device – such as capture a weed in the field and have it show up on the map; or add data from a moisture sensor
2. Access document repository on mobile device, particularly best practices
3. Show overlays of many layers related to farmer's land such as hazards, topography, weather, flood, transportation, ground water
4. Display dashboard with KPI's such as temperature, humidity, evaporation, fertilizer usage, weed count, aggregated sensor information

We also want to identify standards of how to de-identify personal data. Understanding de-