Powering the IoT Revolution

libelium
The greatest challenges in Smart Agriculture sector

The main barriers of the sector that IoT is breaking down

- Farmers with poor training in the technological area and also innovative solutions
- Fields located in remote or isolated areas
- Low budgets to carry out projects due to the dependence on harvest
- Most of the companies of Agriculture sector are very small with just a few employees
- Global climate change: is vital to control weather and ambient conditions
- Pests can ruin the entire harvest
Multiple vertical solutions: Smart Environment PRO

- Air Quality Index (AQI) calculation
- 16 calibrated gas sensors (CO, O3, NO2, SO2, CO2, CH4, etc.)
- High-end Dust Particle Matter sensor (PM1 / PM2.5 / PM10)
Monitoring water quality in rivers, lakes, sea, etc.
Application to drinking water, swimming pools, waste water treatments, agriculture water, fish farms, etc.
T, pH, dissolved oxygen, conductivity, turbidity, etc.
Specialized sensors measuring ions concentration in water

Multiple vertical solutions:
Smart Water, Smart Water Ions & Smart Water Xtreme
Multiple vertical solutions: 
Smart Agriculture & Smart Agriculture Xtreme

- Monitoring of soil parameters, weather conditions and plant growth
- Application to any kind of crop (vineyards, greenhouses, fruit trees, tobacco, corn, etc.)
- Allow increase quality and quantity of production, optimize fertilization, reduce water consumption, predict insect plagues, etc.
Main Precision Farming applications
Libelium solutions to improve agricultural competitiveness

- Cost savings in terms of water, energy, fertilizers and pesticides.
- Product losses prevention by controlling weather conditions to adequate harvest times.
- Optimizing farmers daily tasks by automating processes.
- Getting real-time alerts about crop's conditions to make adjustments to reach optimal growth conditions.
- Planning specific strategies and predictive models.
Case study

Agrotech, the smart agriculture IoT platform to maximize your crop yield
Challenge: Spanish wine sector must face the problems derived from the rural depopulation and global warming.

The main objective of the Agrotech project is to provide an autonomous IoT measurement system, with no need for any action taken by users that have this system deployed in their farms.

Partner: Efor.

Place: Aragón (Spain).

Sector: Smart Agriculture.
Agrotech project was introduced in several vineyards of Aragon (Spain).

This information must be sent to Microsoft Azure cloud via 4G every 15 minutes.

This information will help agriculturist so they can make better strategic decisions based on real data.
Several Plug & Sense! Smart Agriculture PRO were installed to control the parameters of the vineyards:

- Temperature
- Humidity
- Atmospheric pressure
- Soil moisture
- Soil temperature
- Weather conditions (wind direction, wind speed and pluviometry)
- Leaf wetness
- Solar radiation
Agrotech to maximize the crop yield
Aragón (Spain)
David Bordonada
Sales Area Manager Smart Agriculture

The IoT Marketplace: https://www.the-iot-marketplace.com/
Twitter: @libelium

David Bordonada
sales@libelium.com