

# Business Model Databases II

César Andrés Torres Bernal 20191020147 Juan David Duarte Ruiz 20191020159

**Engineering Faculty** 

# 1. Business Model

# **III** CFI

## **Key Partners**

- Weather data providers (OpenWeather, Copernicus, IDEAM).
- Manufacturers and distributors of IoT sensors for agricultural use.
- Ministries of Agriculture, government agencies and NGOs that promote sustainable practices.
- Universities and climate and agricultural research institutes, which provide knowledge and scientific validation.
- Payment platforms and rural banking entities, which facilitate payments and subsidies.
- Agricultural input distributors that could partner for integrated offers.



# **Key Activities**

- Design and management of weather forecasting and advisory services, adapted to different agricultural profiles.
- Execution of awareness and technology adoption campaigns in rural areas.
- Management of strategic relationships with governments, cooperatives, NGOs and agricultural associations.
- Technical support: development and maintenance of the digital system to offer the service.

# **Key Resources**

- Network of strategic alliances with actors in the agricultural and climate sector.
- Access to reliable databases and satellite coverage.
- Supporting resource:
- Al and machine learning engine trained on historical and real-time data.
- Distributed databases and data ingestion systems such as Kafka, Kinesis, BigQuery, etc.

# Value Propositions

#### For farmers:

- Accurate and actionable recommendations based on local climate predictions.
- Reduction of losses due to extreme events such as drought, frost or excessive rainfall.
- Optimization of the use of resources such as water and fertilizers.
- Ease of use, even without technical training.

#### For institutions and companies:

- Access to regional data and reports for agro-climatic decision making.
- Tools for planning subsidies, agricultural insurance and technical support.
- Improved public policies and agroclimatic disaster mitigation.

\_\_\_



# Customer Relationships

- Multichannel technical assistance (chat, telephone, mail) for rural users with limited connectivity.
- Training and support in the adoption of the platform, especially in areas with low digitalization.
- Automated and personalized alerts, without the need for constant interaction.

#### Channels

- Web platform accessible in rural areas with low connectivity.
- API access for institutions wishing to connect their agricultural management systems.
- Institutional partners (agricultural agencies, cooperatives) as implementation and support channels.

# **Customer Segments**

#### Individual users:

- Small and medium farmers interested in protecting their crops.
- Technified producers who integrate IoT in their agricultural management.

#### Institutional customers:

- Regional and national governments that manage climate risks in the agricultural sector.
- Agribusiness companies seeking to optimize production and climate logistics.



## Cost Structure

- Operation of alliances, training and customer service in the territory.
- Access and processing of climate and satellite data.
- Marketing, campaigns and community training.
- Investment in continuous improvement of the regional recommendation and adaptation model.
- Technical support: maintenance and technological operation costs servers, cloud, support.

#### Revenue Streams

- Monthly or annual subscription of farmers, with staggered plans according to needs
- Institutional licenses for local or national governments.
- Additional services (consulting, premium data, risk maps).
- Freemium model with free basic functionalities and advanced paid plans.
- Alliances with insurance companies or input companies, which sponsor access to the service.

