krishimitra

Making agriculture easy for farmers, providing end to end solution & assistance to multiply their income

INTER IIT TECH MEET 10.0
FINAL EVALUATION

Silicon Labs' Social Entrepreneurship Challenge

TEAM 13

CHALLENGE & IDEOLOGY

- **Challenge**

  Enhance the contribution of the farming sector to the GDP proportionally to the percentage of the population involved

- **Ideology : Smart Precision Farming**
  - Provide monetary valuation
  - Risk analysis
  - Guidelines for maximum effective resource management
  - One stop solution for all farming

PROBLEM

Lack of real-time access to water requirement in farms

Problem of irregular irrigation due to unpreceedented weather conditions

Lack of policy knowledge, education among farmers

Inadequate customized farm Consulting Services to aware farmers Improper/ Less Agriculture Markets and lack of policies knowledge among farmers

Huge premium on crop loans

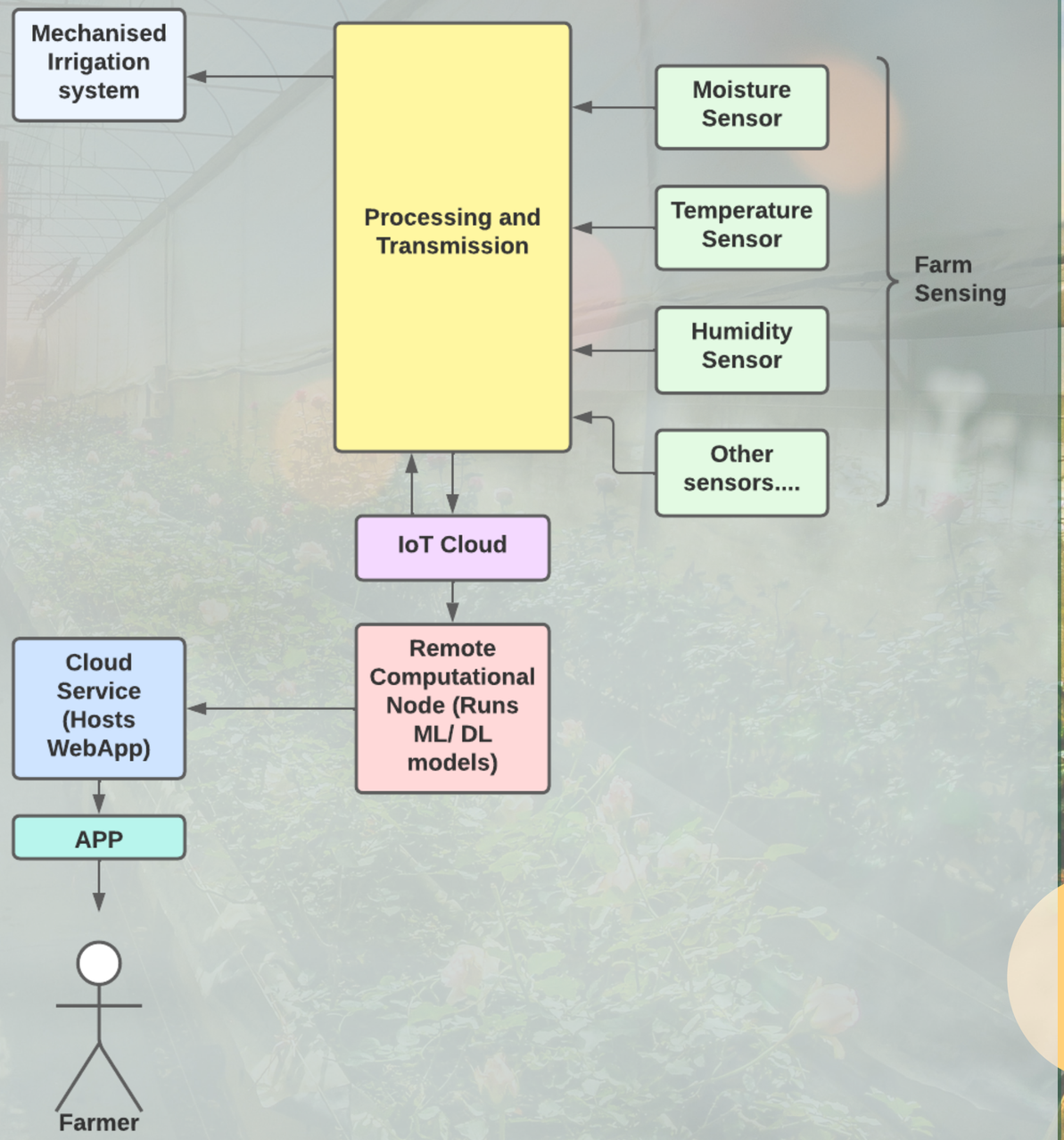
Scarcity of capital and lack of ease in getting crop insurances and loans

SOLUTIONS

We aim to bridge the gap between current and improved agri-tech, agro-consultant solutions

- Accessibility
- Convenience
- Cost-effective

SOLUTION

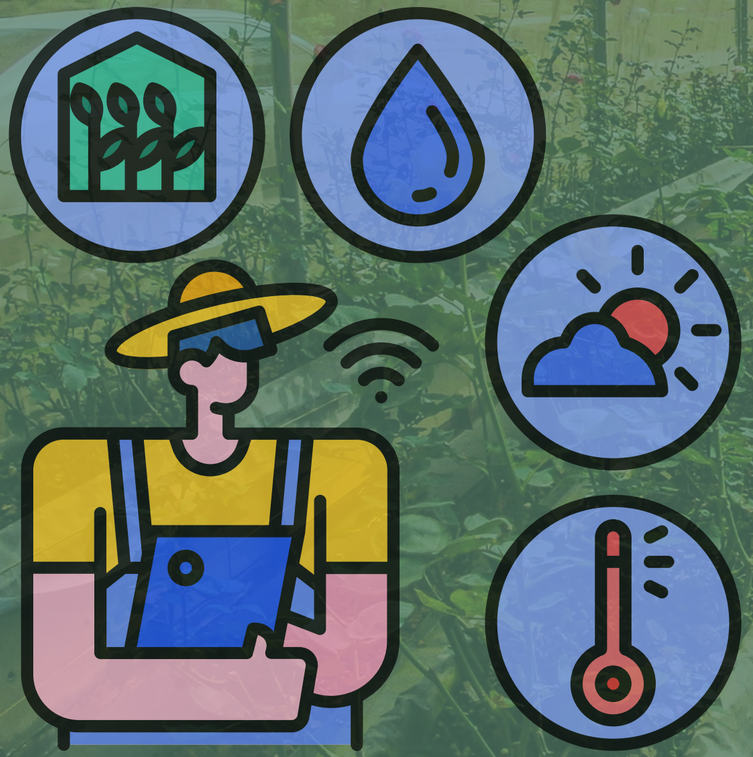

Mechanised Irrigation system
Processing and Transmission
Moisture Sensor
Temperature Sensor
Humidity Sensor
Other sensors....
Farm Sensing
IoT Cloud
Remote Computational Node (Runs ML/ DL models)
Cloud Service (Hosts WebApp)
APP
Farmer

PRODUCT DISCOVERY

Sustainability :

- Environment friendly, low maintenance
- Optimal utilization *(no wastage)* of natural resources
- Long lifetime, require only sensor change 2-5 years.

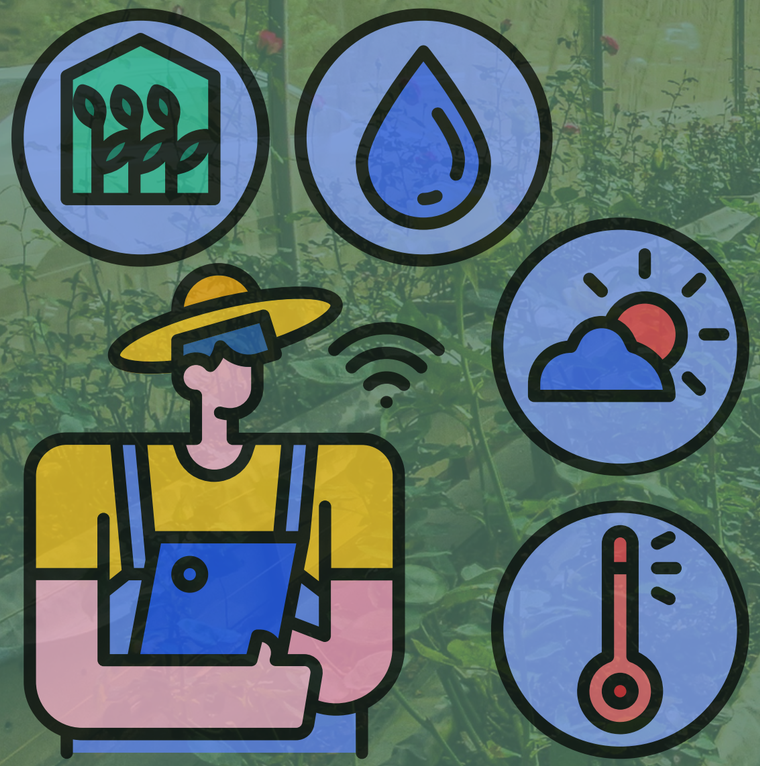
OUR UNIQUE PROPOSITION



KrishiMitra

- Go-to provider of secure, cost-effective, smart, and end-to-end agro-consultant solutions.
- IoT-based Agri tests
- Estimation of input costs and loan services
- Predict the future demand of crop, rate, and market

KRISHI+



- A dedicated social media platform for farmers
- Works on 2G too
- Gives all the necessary inputs like nearby fertilizer shops, informative crop videos, information of seeds to farmers, real time weather solutions etc *(end to end assistance)*
- Real, practical info from IoT, gives AI suggestions
- Purchasing of fertilizers, inputs etc.

DEMONSTRATION

To be demonstrated during presentation

WHO KRISHI MITRA IS FOR?

These are our primary target users:

Farmers - B2C

Small- Insurance, crop loans and consultancy solutions
(< 3 acres of total land assets)
Medium- + Hardware, smart control
(3-30 acres of total land assets)
Large- + Customizable device
(>30 acres of total land assets)

Financial Institutions, agro based industries - B2B

Predicting and assisting institutions in

- Providing crop loans
- Insurance
- REIT fund developments

INDIRECT COMPETITORS

(Meta - Social Media)

(Agri videos, suggestions, weather forecasting)

(Agri traders)

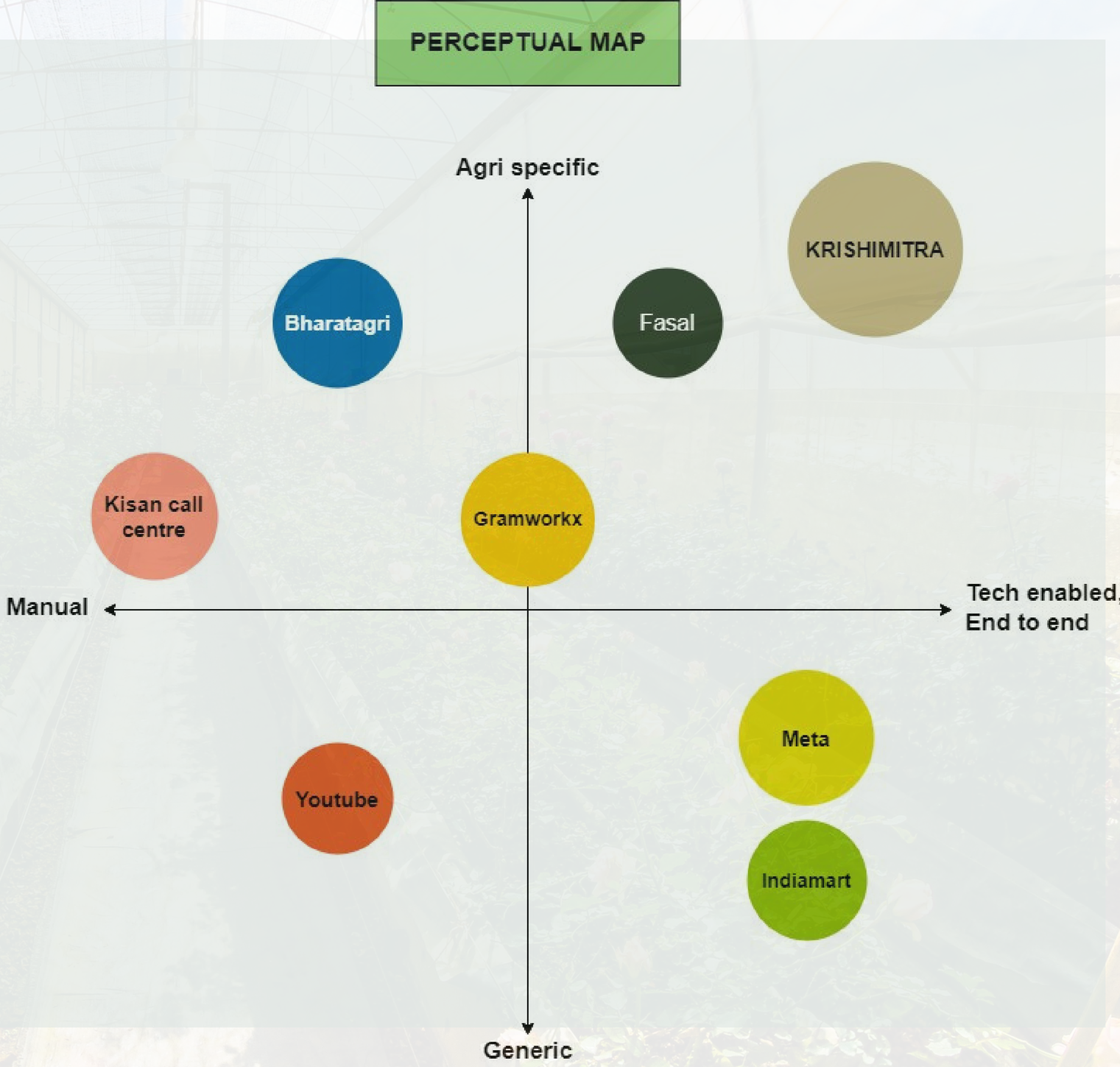
DIRECT COMPETITORS

(non iot)

(internet based)

(centralized)

PERCEPTUAL MAP



KRISHI MITRA

User journey - Customer segments and retention reasons

For Globe

- Renewable energy used
- saves water for irrigation
- Increases yield, better food security
- Reduces human effort
- Reduces waste
- Limits chemical usage

For Farmers

- Increased yield
- Reduced crop insurance premium
- Reduced risk
- Remote control of farm
- High quality yield
- assistance for selling yield

For Banks, Financial Institutions

- Reduced field work
- Reduced paper work
- Curation of Service
- Reduced risk and increased customer base

MVP

- Krishi+ social media app
- Krishimitra UI interface

For Merchants, Industries

- Increased sales
- reaching beyond boundaries
- Investment opportunities

For Investors, NGOs, ADB, World Bank

- Eco friendly solution
- Uplifting the poor out of poverty
- Flexible Revenue Sharing model

GO-TO-MARKET PLAN

Partner with Banks and Insurance companies

To use the services for reducing paperwork, field operations, for prediction and consultancy services

Partner with Essential companies

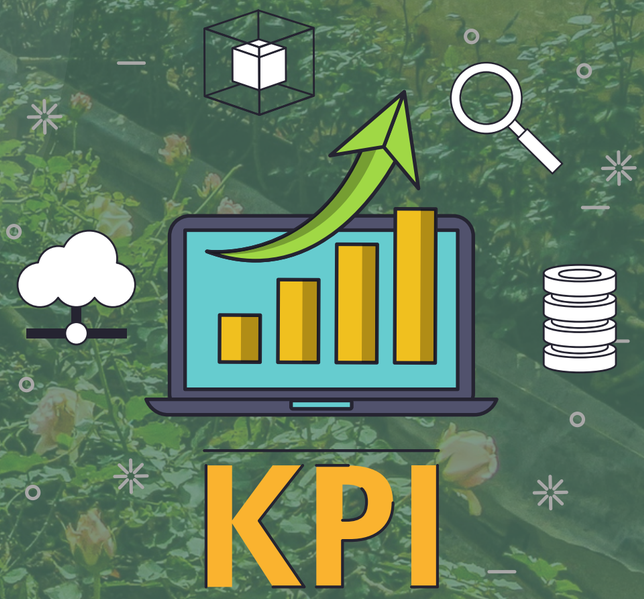
Partner with fertilizer, chemical companies, Agri tools, industries to promote the use of Krishimitra in their units

Marketing

Promote Krishimitra online through TV ads, newspapers, pamphlets, organising knowledge clusters, weekly camps.

KPI METRICES - IMPACT ESTIMATION - SUSTAINABILITY

- Monitor and manage finances
- Save up to 50% on pest and disease management costs
- Get forewarning of possible disease which can incur
- The real-time, location-specific weather prediction
- Weather alert to plan farm activity
- Up to 40% increase in yield
- Up to 60% reduction in pesticide usage
- Reduce up to 50% Water usage *(Irrigation alert)*
- Improves Soil Health
- Accurate use of fertilizer



OUR BUSINESS MODEL

These are the packages we offer to customers:

BASIC PLAN (B2C)

A free KRISHI+ social media platform with features like posts, suggestions of Agri stores, weather forecasting, photos and engagement etc

PREMIUM PLAN (B2C)

Rs. 500 per season for installation, maintenance of IoT based devices.
*IoT device is priced additionally as per the customer requirement

BUSINESS PLAN (B2B)

This is the flexible plan for merchants, industries to list in app, assist financers for crop loan and insurances

BUSINESS MODEL CANVAS

KEY PARTNERS

- Farmers
- Insurance Company
- Bank
- Sellers- Agri Shop
- Buyer - Processing unit, customers
- NGO, World Bank, Nabard etc.

KEY ACTIVITIES

- Setup IoT Device
- Tie-up with insurance and loan provider
- Listing Agri Shops, Buyers

KEY RESOURCES

- Farmers
- Sensors, microprocessors, Cloud
- Agriproduct, banks and life insurance
- weather forecast

VALUE PROPOSITIONS

- High crop yield
- Less water usage
- Improves Soil Health
- Increase profitability
- End to end consultancy
- Low-cost premium and interest rate. (for farmer)
- Increase sales in agri-business
- Reduce risk of bank and insurance company

CUSTOMER RELATIONSHIPS

- Increase profitability and reducing their work will attract customers
- Giving IoT devices for free to small scale farmer.

CHANNELS

- Running campaign is villages
- Agri Shop
- Insurance and banks

CUSTOMER SEGMENTS

- Small, Medium and Large Scale Farmer
- Agri Shop
- Bank and insurance company
- Agri manufacturing unit

COST STRUCTURE

- IoT Devices(500-5000), Acquiring farmers, Agri shop, bank, and insurance company

REVENUE STREAMS

- Commission from bank and Insurance Company
- Listing of Agri shops
- Data generated (demand supply)
- Buyers manufacturing unit

COST OF IoT DEVICE

Base IoT Model

Component	Cost
NodeMCU	₹ 190 /-
Sensors - Humidity , Moisture and Temperature	₹ 600 /-
Overhead Costs	₹ 50 /-
Total Cost	₹ 840 /-

All Sensor IoT Model

Component	Cost
NodeMCU	₹ 190 /-
Sensors - Soil NPK, Temperature, Humidity, Moisture, EC	₹ 6650 /-
Overhead Costs	₹ 150 /-
Total Cost	₹ 7990 /-

REVENUE STREAMS

Insurance Company:

- Provide Crop Health analysis for premium prediction
- Reduce the risk of the company
- Save money for farmers
- Charge commission from the insurance company as an agent

Bank:

- Lack of approval for loan by banks due to high risk
- Eases approval for loans to farmers by providing risk analysis using IoT based data
- Reduces burden on farmers
- Charge commission from bank as an agent

Listing AgriProduct Shop:

- Provides Listings of AgriProduct shops that sell and buy agricultural product based on their crop and soil health.
- Provides a platform to vendors and increase their outreach.
- Revenues is in the the form of commission from these vendors.

Listing Manufacturing Unit /Customers:

- Provide agricultural market analysis for agricultural manufacturing units and food companies.
- Help them by providing focus areas inturn increasing their sales.
- Revenues is in the form of incentives and commissions.

RnD Based Companies:

- Will provide customized data to companies doing research and development in agricultural sector.
- Revenue in the form of assetization of data on agreement basis.

POTENTIAL MILESTONES

A look at where we want to go in the next few years:

2025

Series A Funding
(For initial VC Funding)

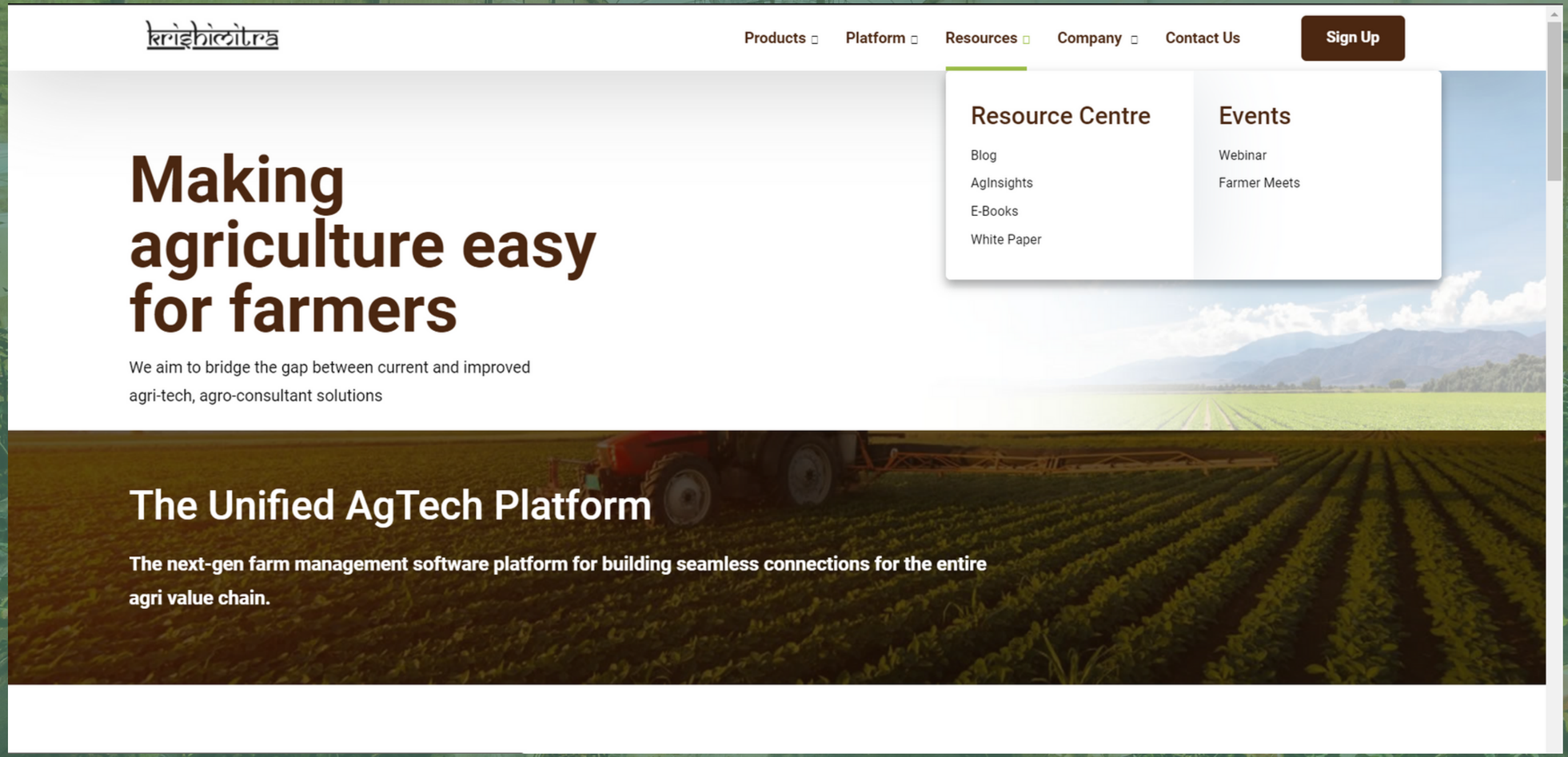
2027

Series C Funding
(Upscaling for growth)

2028

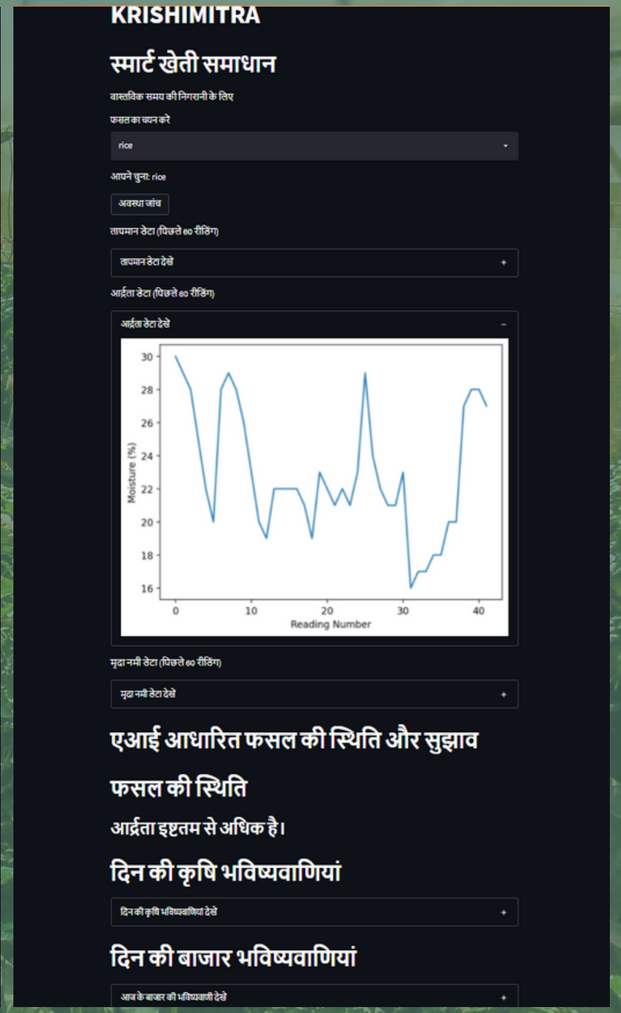
Private Funding
(Going towards IPO)

CUSTOMER-CENTRIC UI PROPOSAL



CUSTOMER-CENTRIC UI

Multilingual Interface for Farmers



FUTURE PLANS

Below is the list of our future plans:

- Miniaturization of IoT device with increased durability.
- Familiarization of community users with the technology through outreach programmes.
- Using mass media to provide services in remote areas under hype-marketing strategy.
- Location based data acquisation for developing a robust ML/DL model.

The above list is inexhaustible...


THANK YOU