Project Title: Smart Farming-IOT Enabled smart farming application

Project Design Phase-I - Solution Fit Template

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Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

- Corporate Agribusiness
- Agro-SME
- Farmers

6. CUSTOMER CONSTRAINTS CC

1)High adoption costs, security concerns

2) Not aware of implementation of IOT in Agri

5. AVAILABLE SOLUTIONS AS

Implementation of land reforms
Interplant
Plant more densely
Plant more crop
Raised beds
Smart water management
Heat tolerant varieties

Explore AS, differentiate

Focus on J&P, tap into BE, understand

2. JOBS-TO-BE-DONE / PROBLEMS J&P

1. Monitoring of climate conditions
2. Greenhouse automation
3. Crop management
4. Cattle monitoring and management
5. Precision farming
6. Agricultural drones
7. Predictive analytics for smart farming
8. End-to-end farm management systems

9. PROBLEM ROOT CAUSE RC

Connectivity in rural areas

Cope with climate change, soil erosion and biodiversity loss

Satisfy customer's changing tastes and expectations

Meet rising demand for more food of higher quality

High adaptive cost

Lack of information

7. BEHAVIOUR BE

Online: farmers can monitor all the sensor parameters by using web or mobile application even if the farmer is not near his field

Focus on J&P, tap into BE, understand

Identify

3. TRIGGERS TR

Optical information, virtual fence technologies allow cattle herd management based remote-sensing signals and sensors or actuators attached to the livestock

4. EMOTIONS: BEFORE / AFTER EM

Increased production: the optimization of all the processes related to agriculture and livestock-rearing increases production rates.

Water saving: weather forecasts and sensors that measure soil moisture and for the right length of time.

10. YOUR SOLUTION SL

Sensor: Visual sensor and biosensors constitute a significant part of the solution to automate the monitoring process of farm animals. Sensors and biosensors in this context refer to devices that ensure data about a specific physical, chemical.

The global positioning system(GPS): is satellite based standard sensing technology used for tracking farm animal's location.

8. CHANNELS of BEHAVIOUR CH

8.1 ONLINE

Digitalization innovation as a means to increase agricultural sustainability

8.2 OFFLINE

Well-informed, technology-interested young crop farmers in Germany rate SFT environmental performance with caution.

AKIS stakeholders agree that most barriers to adoption are linked to technologies' and infrastructures' deficits

Innovation targeted communication between farmers and technology developers or providers is not well developed.

Multi-actor approaches can be substantial to link various stakeholders although no direct impact may be observed.