Project Title: Hazardous Area Monitoring For Industrial Plants | **Project Design Phase-I - Solution Fit Template** | **Team ID:** PNT2022TMID41855

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)

CS

The customers of this product are the workers who works in hazardous area. Our aim is to assist, aid and help them to monitor the field parameters remotely and to keep track of the parameters. This helps in safety of the workers.

6. CUSTOMER CONSTRAINTS

CC

Deployment of huge number of sensors is difficult. It requires an unlimited or continuous internet connection to be successful

5. AVAILABLE SOLUTIONS

AS

The safety of the workers are monitored using IOT. Analytic data and field parameters are obtained & processed to automate the process of monitoring. The drawbacks are high cost of maintenance and efficient only for short distance

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS

J&P

The objective of this product is to obtain the different field parameters using sensor and process it using a central processing system. Cloud is used to store and transmit the data by using IoT.. The workers could take decision through a mobile application

9. PROBLEM ROOT CAUSE

RC

The frequent change or unpredictable conditions of hazardous materials, made it difficult for the workers. These factors play a major role in making suitable substitutes for safety levels. It may be hard due to the workers negligence.

7. BEHAVIOUR

BE

Using mobile we can get timely report updates. Deep field analysis with key factors monitored by using gas and temperature sensor.

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TR

Workers facing issues in detecting gaseous waste. Workers struggle to predict the leakage of gas

4. EMOTIONS: BEFORE / AFTER EM

BEFORE: *Lack of knowledge in hazard prone area→ Random decisions →low safety.*

AFTER: *Data from reliable source → correct decision →high safety*

10. YOUR SOLUTION SL

Our product collects the data from different types of sensors and it sends the value to the main server. The ultimate decision is to shield the workers from the hazard prone area and safeguard their lives using mobile application

8. CHANNELS OF BEHAVIOUR CH

ONLINE: *Providing online assistance to the worker, in providing depth knowledge of chemistry to manage the hazardous waste. Online assistance to be provided to the user in using the device.*

OFFLINE: *Awareness camps to be organized to teach the importance and advantages of the automation and IOT in the development of Hazardous area monitoring.*

Extract online & offline CH of BE