**Project Title: SMART WASTE MANAGEMENT SYSTEM Project Design Phase-I** - **Solution Fit Template Team ID:** PNT2022TMID07841

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

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**AS**

**5. AVAILABLE SOLUTIONS**

The manual Checking and Collecting of Waste is not possible this leads to overflow of waste and cause several problems. The Major reason is finding the dustbins in the areas.

All dustbins are not filled at the same rate and the dump vehicles waste time checking each dustbin. This leads to more fuel usage and labor cost.

There are several projects is there for tracking and collecting but all those are not connected well and there is no information of the waste amount and the pollution of the area.

We Have used Latest Geo location module that work with solar power and helps to identify and track the waste in the bin and collect it by periodically. The co2 sensor will measure the pollution level caused by the waste.

**CC**

**6. CUSTOMER CONSTRAINTS**

**CS**

**1. CUSTOMER SEGMENT(S)**

Now a days waste materials were widely increased in the Electronic, Food and Medical areas. So, our Primary Customer Segments are Hospitals, Electronic Industries and Hotels.

**Explore AS, differentiate**

**Define CS, fit into CC**

**BE**

**7. BEHAVIOUR**

The problems were get posted to the website and the problem will be rectified Asap. The bin health is also monitored continuously.

The Records were Continuously monitored and in case of Emergency an alert message sent to the office.

**RC**

**9. PROBLEM ROOT CAUSE**

Overpopulation, urbanization, and the growing technology are among the few reasons for solid waste pollution. The food waste from the kitchen Solid waste items including carton boxes, paper, tins, metal cans, aluminum in the forms of foils, batteries are a few of the solid waste that can be recycled. Hazardous waste includes chemicals, paints, fertilizers, light bulbs, and batteries that pollute the environment. The waste coming from hospitals and drug companies are also hazardous.

**J&P**

**2. JOBS-TO-BE-DONE / PROBLEMS**

* The rapid growth of population and the Industrialization growth are the major cause of increase in garbage.
* Due to uncollected waste or Overflow of garbage can cause malodorous, Health issues and disturbance to the people.

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| **Identify strong TR & EM** | **3. TRIGGERS**  **TR**  With the use of Geolocation, it’s possible to locate and collect the waste on time. | **10. YOUR SOLUTION SL**  Our Solution that comes under Smart City. In this in every area and every street we will place a smart dust bin which contain an Arduino board with Co2 sensor, Gps, Ultrasonic sensor which will connect with the app and indicates the level of garbage and the Pollution level of the area. It works in the solar power and it stores the power in the backup battery for the emergency situation. | **8.CHANNELS of BEHAVIOUR CH**   * 1. **ONLINE**   Customers can complain, report and give their feedback.   * 1. **OFFLINE**   In offline customers can report about the garbage to the local staff of the nearby area to clear them. |  |
| **4. EMOTIONS: BEFORE / AFTER**  **EM** Before -> After Frustrated Fulfilled **Unpleasant Environment Pleasant Environment**  **Unhealthy Healthy**  **Polluted Controlled** |