Project Design Phase-I
Problem – Solution Fit

Date	22 October 2022
Team ID	PNT2022TMID03917
Project Name	Smart Waste Management System for Metropolitan Cities

Define CS, fit into CC	CS **1. CUSTOMER SEGMENT(S)**	CC **6. CUSTOMER CONSTRAINTS**	AS **5. AVAILABLE SOLUTIONS**
	❖ In order to manage and dispose of rubbish effectively, we are creating a smart IOT-based waste management system for metropolitan areas as part of our research. Our customers are waste holders like everyday people, owners, or shopkeeper.	❖ Bins for separation are not offered. People put trash beside highways in plastic bags. ❖ Because there are no set locations or schedules for garbage pickup, people are unsure about where to place their trash.	❖ Use a reusable bottle/cup and bags for beverages on-the-go Shop eco _friendly withreusable bags. ❖ Due to their ability to detect the quantity of waste and notify users, digital trash cans are a better option than dustbins.

Focus on J&P, tup into BE,understand RC	J&P **2. JOBS-TO-BE-DONE / PROBLEMS**	RC **9. PROBLEM ROOT CAUSE**	BE **7. BEHAVIOUR**
	❖ organize and manage waste disposal, collection and recycling facilities. ❖ detect location, temperature, and fill level in real time. ❖ this data is then used to plan optimal collection routes, resulting in an efficient pickup process.	❖ The waste/recycling business has considerable safety problems. ❖ Chemical exposure, flammable dust explosions, machine guarding risks, and contact with machinery are a few of them.. ❖ Poor disposal of hospital waste cause major health issue.	❖ less waste collections would be required, which would require less labour, emissions, fuel, and road congestion.

Identify strong TR & EM	TR **3. TRIGGER** By implementing this initiative, we may inspire individuals by showing them how their neighbors are using technology more effectively and by reading about a more effective approach in the news.	*SL* **10. YOUR SOLUTION** ❖ Our solutions aim to effectively manage waste by alerting users to the volume of waste as well as authenticating individuals who collect it and move on to further processing with the garbage.	*CH* **8.CHANNELS of BEHCHANAVIOUR** ONLINE: ❖ If it is in online mode, people may review about the overflow of waste OFFLINE: ❖ If it is offline every day the waste collecting trucks will collect garbage from home.
	EM **4.EMOTIONS: BEFORE /AFTER** ❖ Before development of this technology, air pollution from waste products caused health problems in society and directly affects many ecosystems and species. ❖ After implementation of smart waste management system our environment will be neat and clean.		