## **Project Title: Smart Waste Management system for Metropolitan Cities**

Team ID: PNT2022TMID28587

5. AVAILABLE SOLUTIONS efine) 6. CUSTOMER CONSTRAINTS 1. CUSTOMER SEGMENT(S) Recycling, composting, incineration, landfills, bioremediation, waste to energy, All sanitation workers and the IoT applications in waste management and waste minimization entire society are the is producing leaner operations and delivering higher quality services to AS, beneficiaries. citizens. Route optimisation, which fit into Smart waste management is reduces fuel consumption while differen: about using technology and data to emptying the waste dumpsters throughout the city. create a more efficient waste industry. 2. JOBS-TO-BE-DONE / PROBLEMS 9.PROBLEM ROOT CAUSE 7.BEHAVIOUR **Uncontrolled waste management** One of the first causes of poor waste Perform real time monitoring along management is a lack of public can lead to medical and healthcare with the object detection model and awareness or, more specifically, lack of detect the level of filling. waste being mixed with household awareness within businesses and poor waste, waste generation and attitudes. Often, when something is at the end of its use, the way it's disposed inadequate waste collection, of can be done so with a lack of care. transport, treatment and disposal.

## 3. TRIGGERS

smart waste management aims to optimize resource allocation, reduce running costs, and increase the sustainability of waste services.

## 10. YOUR SOLUTION

IoT-based smart sensors help you utilize smart bin sensor technology, which Track the location with real-time data. View fullness levels for creating daily optimized routes for collection

## 8. CHANNELS of BEHAVIOUR

8.1 **ONLINE** Detecting bins using sensors, optimizing the routes through GPS.





4. EMOTIONS: BEFORE / AFTER Before: Poor waste management contributes to climate change and air pollution, and directly affects many ecosystems and species. After: provide hygienic, efficient and economic solid waste storage, collection, transportation and treatment or disposal of waste without polluting the atmosphere, soil or water system.	