

**Project Design Phase-I  
Proposed Solution Template**

Date	02 October 2022
Team ID	PNT2022TMID13627
Project Name	SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES
Maximum Marks	2 Marks

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Rapid increase in volume and types of hazardous waste as a result of continuous economic growth, urbanization and industrialization is becoming a burgeoning problem for waste management agencies to ensure an effective and sustainable management of waste.
2.	Idea / Solution description	Smart waste management is characterized by the usage of technology in order to be more efficient when it comes to managing waste. This makes it possible to plan more efficient routes for the trash collectors who empty the bins, but also lowers the chance of any bin being full for over a week!
3.	Novelty / Uniqueness	The smart cities concept highlights the use of Information and Communication Technology (ICT) to increase the quality and build more efficient technological solutions in different urban network services of a city life. One of the most famous models used to make a smart city is Internet Of Things (IOT)
4.	Social Impact / Customer Satisfaction	Poor waste management contributes to climate change and air pollution, and directly affects many ecosystems and species.

		<p>Landfills, considered the last resort in the waste hierarchy, release methane, a very powerful greenhouse gas linked to climate change. Methane is formed by microorganisms present in landfills from biodegradable waste, such as food, paper and garden waste. Depending on the way they are built, landfills might also contaminate soil and water.</p> <p>After waste is collected, it is transported and treated. The transport process releases carbon dioxide – the most prevalent greenhouse gas – and air pollutants, including particulate matter, into the atmosphere.</p>
5.	Business Model (Revenue Model)	Waste Management generates revenue through the provision of various waste management and disposal services and recycling solutions to residential, commercial, industrial, and municipal clients. The Company derives its revenue in the form of various fees associated with its service offerings.
6.	Scalability of the Solution	<p>Waste management is important as it saves the environment from the toxic effects of inorganic and biodegradable element present in waste.</p> <p>Mismanagement of waste can cause water contamination, soil erosion and air contamination. Waste can be recycled if collected and managed efficiently.</p>