

Project Design Phase-I
Proposed Solution Template

Date	14 OCTOBER 2022
Team ID	PNT2022TMID30690
Project Name	SMART WASTE MANAGEMENT FOR METROPOLITIAN 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)	A historical backlog of waste services for, especially, urban informal areas, tribal areas and rural formal areas. Although 61%10 of all South African households had access to kerbside domestic waste collection services in 2007, this access remains highly skewed in favour of more affluent and urban communities. Inadequate waste services lead to unpleasant living conditions and a polluted, unhealthy environment.
2.	Idea / Solution description	The Proposed system consists of main subsystems namely Smart Trash System(STS) and Smart Monitoring and Controlling Hut(SMCH). In the proposed system, whenever the waste bin gets filled this is acknowledged by placing the circuit at the waste bin, which transmits it to the receiver at the desired place in the area or spot.
3.	Novelty / Uniqueness	In mega cities due to comparatively more population along with the rapid urbanization the collection of garbage is becoming a big task. Waste management is a matter of concern, equal involvement of the Government and the citizens is a must to manage and overcome waste management issues.
4.	Social Impact / Customer Satisfaction	Public and social health are paramount not only to individual governments in the world, but the United Nations (UN) as well. The world body, in a bid to achieve the Millennium Development Goals (MDGs), encourages governments to implement social intervention programs that lead to improvement in basic services for health, education, water and sanitation. In September 2015, Heads of State and Governments adopted the 2030 Agenda for Sustainable Development which includes the 17 Sustainable Development Goals (SDGs). The

		SDGs builds on the success of the MDGs. The Goal 6 of the SDGs is to ensure availability and sustainable management of water and sanitation.
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>Sensoneo's smart waste management solution empowers cities to manage and battle ever-growing volumes of urban and municipal waste. The growing volumes of waste are largely caused by two factors: large-scale urbanization and industry growth. The modern lifestyle around the globe produces much more waste per citizen than only a decade ago. The United Nations projects 66% of the world's population will live in cities by 2050.</p> <p>To sustain all these factors, problems and challenges, cities need a sophisticated and efficient tool to manage waste, monitor bins with sensors, and optimize capacity and collection routes.</p>