

**Project Title: Smart Waste Management System for Metropolitan Cities**

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> <p>The target market for waste management service include business and organization that generate lot of waste where organization include factories, hospital, farms, industries</p>	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> <p>Customer constraints includes high demand for Human Resource and allocation of cash to implement the supply and management process. Major constraint for the customer is to organize the Human Resource and educate them with the methodologies so that the waste products can be moved accordingly Maintenance budget</p>	<b>5. AVAILABLE SOLUTIONS</b> <span>CS</span> <p>Waste level sensors, Recycling apps which provide information on recycling rates and centre locations</p>	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>—</span> <p>Our patterns of consumption and production have an impact on the quantity of waste we produce. Due to the enormous amount of waste produced each day, the environment becomes polluted if the waste is not controlled. Hazardous liquid wastes like kerosene, gasoline, and motor oil are also included in the general word "waste," as are hazardous solid wastes like plastics, batteries, and pesticides. The repercussions we face if all this waste is not properly managed are severe.</p>	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> <p>Waste management is essential for upholding sustainability and ecological harmony in the environment. Waste is a problem that exponentially increases with population and growth. Growth in the population raises demands, which raises production, which raises waste production.</p>	<b>7. BEHAVIOUR</b> <span>BE</span> <p>Monitor local waste and recycling collection services and manage contracts with private waste collection companies. Introduce new disposal or recycling schemes, counsel nearby businesses and communities on waste reduction and environmental issues and ensure that waste disposal is done in a manner that complies with the law. Oversee and inspect waste disposal sites and recycling facilities</p>	

<div>3. TRIGGERS <span>TR</span></div> <div>Government or municipality will be searching solution from neighbor state or government and they will be asking solution from students by keeping hackathons or ideathons.</div>	<div>10. YOUR SOLUTION <span>SL</span></div> <div>The main objective of the project is to collect the waste from the from the municipal bins when filled, then to interconnect all the bins through internet of things. By using the concept of supply chain management, data management and statistical predictions algorithm the route for the waste collection is designed for a specified time. This waste management ideation enhances the time consumption and thus prevents the overflowing of bin and effective use of manpower and resources.</div>	<div>8. CHANNELS of BEHAVIOUR <span>CH</span></div> <div>8.1 ONLINE What kind of actions do customers take online? Extract online channels from #7</div> <div>Monitoring the sensors which gets attached with dustbin like level of filling and weight of the waste Analyzing the statistical report to take corrective measures</div> <div>8.2 OFFLINE What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.</div> <div>Driving the garbage truck and collecting the waste manually Sorting the waste manually offline</div>
<div>4. EMOTIONS: BEFORE / AFTER <span>EM</span></div> <div>When facing the problem people may be get, angered, irritated because of the improper maintenance of garbage waste. After implementation of our solution, they can save time and money.</div>		