

	<div><div>1. CUSTOMER SEGMENT(S)<div>CS</div></div><div>Who is your customer? i.e. working parents of 0-5 y.o. kids</div></div>	<div><div>6. CUSTOMER CONSTRAINTS<div>CC</div></div><div>What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.</div></div>	<div><div>5. AVAILABLE SOLUTIONS<div>AS</div></div><div>Which solutions are available to the customers when they face the problem or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking</div></div>	
Define CS, fit into CC	<div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div>• Smart waste management system would include; a sensor attached to the trash bin that measures fill level; and a communication system that transfers this data to Cloud.</div><div>• By exploiting this data, trash collection can be planned as well as truck routes can be optimized.</div></div></div></div>	<div><div><div>Some of the problems created are:-</div><div><div><div>• Misunderstanding of the operations of smart sensors</div><div>• Setting up the smart sensor</div><div>• Non-optimized truck routes</div><div>• Recycling</div><div>• Non-uniform waste distribution of waste in bins</div></div></div></div></div>	<div><div><div><div>• In previous solutions, waste collectors visit a certain area of the city on a fixed scheduled day to collect waste.</div><div>• If there is not enough waste to be collected, the visit is unserviceable. Hence, either hygiene is compromised or fuel efficiency and resources are compromised.</div><div>• The best way is to notify the waste status to the concerned department. This approach is possible through Smart Waste Management.</div></div></div></div>	Explore AS, differentiate
	<div><div>2. JOBS-TO-BE-DONE / PROBLEMS<div>J&P</div></div><div>Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.</div></div>	<div><div>9. PROBLEM ROOT CAUSE<div>RC</div></div><div>What is the real reason that this problem exists? What is the back story behind the need to do this job? i.e. customers have to do it because of the change in regulations.</div></div>	<div><div>7. BEHAVIOUR<div>BE</div></div><div>What does your customer do to address the problem and get the job done? i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)</div></div>	
Focus on J&P, tap into BE, understand RC	<div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div>These are all the problems worth solving through Smart Waste Management System.</div><div><div>• Inefficient way to identify the waste collection</div><div>• Fixed routine for waste collection</div><div>• Wastage of resources(Labor, Fuel etc.,)</div><div>• Missed pick-ups, causing unclean environment.</div></div></div></div></div>	<div><div><div><div>• In previous solutions, waste collectors visit a certain area of the city on a fixed scheduled day to collect waste.</div><div>• If there is not enough waste to be collected, the visit is unserviceable. Hence, either hygiene is compromised or fuel efficiency and resources are compromised.</div><div>• The best way is to notify the waste status to the concerned department. This approach is possible through Smart Waste Management.</div></div></div></div>	<div><div><div>Attributes of Smart Waste Management:</div><div><div>• Real-time waste monitoring</div><div>• Predictions for bin fullness</div><div>• Detailed database of bins and stands</div><div>• Route planning for waste collection</div><div>• Database of citizen reports</div><div>• Fire alarm and other warnings</div></div></div></div>	Focus on J&P, tap into BE, understand RC
	<div><div>3. TRIGGERS<div>TR</div></div><div>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</div></div>	<div><div>10. YOUR SOLUTION<div>SL</div></div><div>What kind of solution suits Customer scenario the best? Adjust your solution to fit Customer behaviour, use Triggers, Channels & Emotions for marketing and communication.</div></div>	<div><div>8.1 ONLINE CHANNELS<div>CH</div></div><div>What kind of actions do customers take online? Extract online channels from box #7 Behaviour</div></div>	
Define CS, fit into CL	<div><div><div><div></div><div></div></div><div><div></div><div></div></div></div><div><div><div>• It is very important to have a smart way of managing waste, so that not only the waste status is notified in-time when to be collected, but also, all the stakeholders are made aware in timely fashion.</div><div>• The waste related data should be stored in a more accessible location, like a cloud, where stakeholders are able to analyze and adapt accordingly.</div></div></div><div><div>4. EMOTIONS: BEFORE / AFTER<div>EM</div></div><div>How do customers feel when they face a problem or a job and afterwards? i.e. lost, insecure > confident, in control - use it in your communication strategy & design.</div></div><div><div>Emotions (before implementing SWM)</div><div><div>• Inefficient way to identify the waste collection</div><div>• Overfilled trash bins create unhygienic conditions</div><div>• Non-optimized truck routes</div></div><div>Emotions (after implementing SWM)</div><div><div>• Optimize waste operations</div><div>• Create a cleaner, healthier smart cities.</div></div></div></div>	<div><div><div><div>• Garbage level detection in bins</div><div>• Getting the weight of the garbage in the bin.</div><div>• Alerts the authorized person to empty the bin whenever the bins are full.</div><div>• Garbage level of the bins can be monitored through a Web App</div><div>• We can view the location of every bin in the web application by sending GPS location from the device.</div></div></div><div><div>If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality. If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.</div></div></div>	<div><div><div><div>• Real-time waste monitoring</div><div>• Predictions for bin fullness</div><div>• Detailed database of bins and stands</div></div></div><div><div>8.2 OFFLINE CHANNELS<div>CH</div></div><div>What kind of actions do customers take offline? Extract offline channels from box #7 Behaviour and use them for customer development.</div></div><div><div><div>• Onsite handling</div><div>• Storage and processing</div><div>• Collection; transfer and transport</div></div></div></div>	Explore AS, differentiate