

## Problem-Solution Fit canvas

Purpose / Vision

Version:

Define CS, fit into CL	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Urban municipal officers, water board staff, traffic management teams, environmental NGOs, and citizens concerned with sustainable urban development.	<b>6. CUSTOMER LIMITATIONS</b> <small>EG. BUDGET, DEVICES</small> <span>CL</span> Lack of AI tools - Poor integration with existing systems - Budget or training constraints for new tech	<b>5. AVAILABLE SOLUTIONS</b> <small>PROS &amp; CONS</small> <span>AS</span> Traditional route maps - Basic Excel-based waste/water reports - Static traffic plans not based on real-time data	Explore AS, differentiate
	<b>2. PROBLEMS / PAINS</b> <small>* ITS FREQUENCY</small> <span>PR</span> Analyze waste data and optimize disposal methods - Predict future water usage trends and shortages - Analyze and optimize city traffic routes using coordinate data	<b>9. PROBLEM ROOT / CAUSE</b> <span>RC</span> No centralized AI system for holistic analysis - Lack of technical expertise or real-time data mapping	<b>7. BEHAVIOR</b> <small>* ITS INTENSITY</small> <span>BE</span> Officers manually check Excel files - Residents post complaints on social media - Delayed responses due to reactive planning	
Identify strong TR & EM	<b>3. TRIGGERS TO ACT</b> <span>TR</span> Increase in uncollected waste complaints - Water scarcity reports in urban zones - Congestion and citizen frustration with city traffic	<b>10. YOUR SOLUTION</b> <span>SL</span> A web app powered by the IBM Granite LLM, with modules for: - Smart Waste Management (PDF upload → AI response) - Water Prediction System (CSV upload → trends + charts) - Traffic Route Optimizer (coordinates → route map + suggestions)	<b>8. CHANNELS of BEHAVIOR</b> <span>CH</span> <b>ONLINE</b> Email, phone, or local apps - WhatsApp or physical reports for complaints - No AI-enabled dashboards in use <b>OFFLINE</b>	Extract online & offline CH of BE
	<b>4. EMOTIONS</b> <small>BEFORE / AFTER</small> <span>EM</span> Before: Helpless, overwhelmed by disorganized data, poor visibility - After: Confident, proactive with insights, data-backed decisions			