

# PROBLEM- SOLUTION FIT

Date	29 September 2022
Team ID	PNT2022TMID33019
Project Name	Project - River Water Quality Monitoring and Control System
Maximum Marks	4 Marks

Problem-Solution fit canvas 2.0		RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM	
Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <small>Who is your customer? i.e. working parents of 0-5 y.o. kids</small>  <p>The customer here is "Local Residents"</p>	<b>6. CUSTOMER CONSTRAINTS</b> <small>vices.</small> <ul style="list-style-type: none"> <li>Unable to adapt to the new technology.</li> <li>Insufficient data and resources of water bodies even around my own vicinity.</li> <li>Unsure to trust the app.</li> </ul>	<b>5. AVAILABLE SOLUTIONS</b> <p>STREAM- Smart water quality monitoring and management system .</p> <p>pros: STREAM versions such as Inline, submerged, Floating.</p> <p>Cons: Easily affected by external factors .</p>
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <small>J&amp;P</small> <ul style="list-style-type: none"> <li>detection of changes in quality of the water in the distribution supply network .</li> <li>instant messaging services to customers and citizens when problems arise.</li> <li>detection of contamination in the water.</li> <li>automated collection of information to be reported to the environmental authorities.</li> </ul>	<b>9. PROBLEM ROOT CAUSE</b> <small>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.</small> <ul style="list-style-type: none"> <li>Pollution and waste from man-made resources.</li> <li>Lack of monitoring systems.</li> <li>If large amounts of fertilizers or waste drain into a river the concentration of nitrate and phosphate in the water increases considerably.</li> <li>Global warming &amp; natural disasters.</li> </ul>	<b>7. BEHAVIOUR</b> <small>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)</small> <ul style="list-style-type: none"> <li>Downloading the water quality monitoring apps.</li> <li>To create awareness about the water pollution.</li> <li>Finding the source of the water pollutant.</li> <li>Constantly monitoring the quality of the water.</li> </ul>
Focus on J&P, tap into BE, understand RC	<b>3. TRIGGERS</b> <small>TR</small> <ul style="list-style-type: none"> <li>Water pollution, Algae bloom, Heavy metals</li> <li>Toxins, Water borne diseases</li> </ul>	<b>10. YOUR SOLUTION</b> <small>SL</small> <p>The continuous monitoring of river water quality at remote places using wireless sensor networks with low power consumption, low-cost and high detection accuracy of PH, turbidity level etc. ,are the limits that are analysed to improve the water quality.</p>	<b>8. CHANNELS of BEHAVIOUR</b> <small>CH</small> <ul style="list-style-type: none"> <li>Downloading River Quality Monitoring app</li> <li>Creating Awareness in Social Media</li> </ul>
	<b>4. EMOTIONS: BEFORE / AFTER</b> <small>EM</small> <ul style="list-style-type: none"> <li>Frustration, Overwhelmed, Anxious</li> <li>Excited, Happy, Satisfaction</li> </ul>		<b>8.2 OFFLINE</b> <p>Creating awareness in society by conducting welfare programme in school, colleges, public conferences etc.,</p>
Identify strong TR & EM			Extract online & offline CH of BE