

Project Design Phase

Problem – Solution Fit Template

Date	8 June 2025
Team ID	LTVIP2025TMID32454
Project Name	Clean Tech:Transforming Waste Management with Transfer learning
Maximum Marks	2 Marks

Problem – Solution Fit Template:

The Problem-Solution Fit simply means that you have found a problem with your customer and that the solution you have realized for it actually solves the customer’s problem. It helps entrepreneurs, marketers and corporate innovators identify behavioral patterns and recognize what would work and why

Purpose:

- ☐ Solve complex problems in a way that fits the state of your customers.
- ☐ Succeed faster and increase your solution adoption by tapping into existing mediums and channels of behavior.
- ☐ Sharpen your communication and marketing strategy with the right triggers and messaging.
- ☐ Increase touch-points with your company by finding the right problem-behavior fit and building trust by solving frequent annoyances, or urgent or costly problems.
- ☐ **Understand the existing situation in order to improve it for your target group.**

Template:

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) CS Recycling center workers and managers Smart city municipal waste authorities Industrial factory environmental compliance officers	6. CUSTOMER CONSTRAINTS CC Budget limitations for advanced tech Lack of technical knowledge among workers Poor infrastructure in developing areas Internet connectivity issues in some locations	5. AVAILABLE SOLUTIONS AS Manual sorting with limited tools Public education campaigns for segregation Barcode/RFID tracking of waste (limited tech adoption) Outsourcing industrial waste segregation to third-party vendors	Explore AS, differentiate
	2. JOBS-TO-BE-DONE / PROBLEMS J&P Identify and sort recyclable materials accurately and quickly Ensure correct public disposal and segregation of waste at source Comply with regulations on hazardous and industrial waste classification	9. PROBLEM ROOT CAUSE RC Human limitations in processing large, varied waste accurately Lack of scalable, real-time classification systems Inadequate enforcement and monitoring of waste policies	7. BEHAVIOUR BE Workers visually sort waste and flag doubtful items Citizens often dispose of waste without guidance Compliance officers manually log and categorize industrial waste	
Focus on J&P, tap into BE, understand RC	3. TRIGGERS TR Increased contamination in recycling bins Penalties due to improper waste handling Regulatory pressure to improve sustainability standards News/media focus on environmental impact of waste mismanagement	10. YOUR SOLUTION SL CleanTech deploys a transfer learning-powered smart waste classification system: In recycling centers: automates conveyor-belt waste sorting using deep learning In public bins: classifies organic/recyclable/general waste in real time In factories: identifies hazardous and industrial waste types for compliant disposal	8. CHANNELS of BEHAVIOUR CH 8.1 Online: Municipal portals, environmental compliance tools, training videos 8.2 Offline: On-site sorting stations, public bins, industrial disposal rooms, compliance audits	Extract online & offline CH of BE
Identify strong TR & EM	4. EMOTIONS: BEFORE / AFTER EM Before: Stressed, overwhelmed, fatigued, uncertain about accuracy After: Confident, in control, supported by technology, efficient			

References:

1. <https://www.ideahackers.network/problem-solution-fit-canvas/>
2. <https://medium.com/@epicantus/problem-solution-fit-canvas-aa3dd59cb4fe>