

## PROJECT DESIGN PHASE-I

### PROBLEM SOLUTION FIT

|              |  |
|--------------|--|
| Date         | 1 November 2022  |
| Team ID      | PNT2022TMID22894   |
| Project name | Project-Smart Farmer-IoT enabled smart farming application |

### Problem solution fit

|                         |   |  |  |                           |
|-------------------------|---|--|--|---------------------------|
| Define CS, fit into CC  | <b>1. CUSTOMER SEGMENT(S)</b><br><small>Who is your customer?<br/>i.e. working parents of 0-9 yrs kids</small><br><br><b>Farmers are customers</b>  | <b>6. CUSTOMER CONSTRAINTS</b><br><small>What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available labour.</small><br><br><b>1.Limited nutrient availability<br/>2.Inadequate crop protection</b>  | <b>5. AVAILABLE SOLUTIONS</b><br><small>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 &amp; cons do these solutions have? i.e. pen and paper is an alternative to digital technology.</small><br><br><b>1.Promote welfare of farmers<br/>2.Promote local food consumption and improve distribution</b>  | Explore AS, differentiate |
|                         | <b>2. JOBS-TO-BE-DONE / PROBLEMS</b><br><small>What jobs-to-be-done (or problems) do you address for your customers? There could be more than one, explore different jobs.</small><br><br><b>1.Planting,cultivating<br/>2.Supervising farm labor<br/>3.Monitoring climate conditions</b>  | <b>9. PROBLEM ROOT CAUSE</b><br><small>What is the real reason that this problem exists?<br/>What is the back story behind the need to do this job?<br/>i.e. customers have to do it because of the change in regulations.</small><br><br><b>Helps to reduce overall costs and improve the quality and quantity of products</b>  | <b>7. BEHAVIOUR</b><br><small>What does your customer do to address the problem and get the job done?<br/>i.e. Directly related: find the right solar panel installer (calculate usage and benefits, indirectly associated: customers spend less time on outstation work (i.e. Greenpools)</small><br><br><b>To monitor agricultural land,temperature and soil moisture</b>  |                           |
| Identify strong TR & EM | <b>3. TRIGGERS</b><br><small>What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.</small><br><br><b>1.Loss of agricultural land<br/>2.Decrease in variety of crops</b>   | <b>10. YOUR SOLUTION</b><br><small>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.<br/>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.</small><br><br><b>1.Improving quality of rural life<br/>2.Provide better irrigation facilities<br/>3.Invest in farm productivity<br/>4.Adopt and learn new technologies</b> | <b>8. CHANNELS of BEHAVIOUR</b><br><b>8.1 ONLINE</b><br><small>What kind of actions do customers take online? Extract online channels from KT</small><br><br><b>8.2 OFFLINE</b><br><small>What kind of actions do customers take offline? Extract offline channels from KT and use them for customer development.</small><br><br><b>1.Farmers can see and manage all data and equipment using one device in real-time without going on the field<br/>2.Reduces dislocation and migration</b> | Identify strong TR & EM   |
|                         | <b>4. EMOTIONS: BEFORE / AFTER</b><br><small>How do customers feel when they face a problem or a job and afterwards?<br/>i.e. lost, insecure &gt; confident, in control - use it in your communication strategy &amp; design.</small><br><br><b>1.Unavailability of good quality of seeds<br/>2.Poor irrigation facilities<br/>3.Lack of modern equipment</b> |  |  |                           |