

### **1. High-Level Concept (Word Count: 10)**

*What's the simplest, catchiest way to explain your innovation and its impact to your target customers?*

Innovating Sustainable Future through Self-sufficient Smart Farming Utilizing Renewable Energy

### **2. Problem(Word Count: 40)**

*Describe the painful issue addressed by your innovation and those experiencing it. Focus on the 1 or 2 most important difficulties experienced by your target audience.*

Our AI-based Renewable Energy Grid Farming System addresses challenges in modern agriculture and urban living. Many beginners face difficulties with traditional cultivation methods due to high energy costs and environmental issues, highlighting the need for sustainable solutions in today's market.

### **3. Existing Alternatives (Word Count: 38 )**

*Share what your target audience does today to address this problem. Where is the #1 place they turn? The existing alternatives may indirectly compete with your planned solution.*

Telit Wireless Solutions collaborates with SK Telecom on Korea's smart farm system. AutoAgronom offers automatic liquid fertilization and irrigation for 70 crop types in 13 countries. Netafim supplies greenhouse drip irrigation and uManage platforms, serving 110 countries globally.

### **4. Solution (Word Count: 40 )**

*Provide details about how your innovation meets the needs of your customers. Focus on what's unique about your process, assembly, or technology.*

The solution will provide AI-driven multi-source renewable energy integration and seed classification based on optimal growth conditions. The system features real-time monitoring and predictive control via IoT for maximized proficiency with renewable energy usage, ensuring the minimization of energy waste.

### **5. Unique Value Proposition (Word Count: 40)**

*Your unique value proposition should communicate why your innovation is better than all the others out there. Why would your target market choose your innovation instead of the existing alternatives?*

This system includes AI algorithms for seed classification, energy optimization, and weather analysis. When integrated with IoT, these systems enable seamless user connectivity and efficient notifications. This combination aids in accelerating urban development, shaping smarter, sustainable cities for the future.

### **6. Sustainable Advantage**

*Sustained success requires you to not only start with differentiation, but also to maintain it. Include some details on what you can do to keep the distance between you and the other players in the market.*

Our product helps grow crops very easily using mobile apps and AI technology in consideration of user convenience. It will be the genuine platform that helps users to start, maintain, and harvest the crops. To ensure our unique service, we have submitted Patent applications.

### **7. Customer Segment Word Count: 34**

*Who is the target audience for your innovation? What are the demographics, what are their interests, and what makes them a single market?*

Our primary customer segments include urban dwellers interested in home gardening, eco-conscious consumers looking for sustainable living solutions, educational institutions aiming to teach modern agricultural practices, and small-scale farmers seeking to optimize their operations.

### **8. Early Adopters Word Count: 30**

*Within your target customer segment, who are the very first customers you will target? For example, you may target specific geography or a social group you have a preexisting connection to.*

Farmers facing high energy costs and water scarcity, university and research institutions focused on sustainable technologies, and environmental activists (Eco-friendly housing developers) working on net-zero communities are our early adopters.

### **9. Channels Word Count: 40**

*Think through how you are going to attract the market to your innovation. You'll also need to deliver it to your customers. How will you do that? Will you rely on partners? Will you use the internet? Look into how your competitors accomplish this today.*

We plan to reach our customers through multiple channels. These include direct online sales through our website, partnerships with gardening centers and home improvement stores, targeted social media marketing campaigns, and educational workshops and demonstrations to showcase our system's capabilities.

### **10. Key Metrics Word Count : 40**

*Think through the most important 2-3 metrics that you will use to measure your success. Often, these correlate linearly with your success. Key metrics could include financial measures and measures of impact or adoption.*

Key metrics include plant growth success rate, energy savings (kWh), and user engagement with the mobile app. These metrics are crucial as they directly correlate with overall impact, adoption, and financial performance, providing a clear measure of effectiveness and sustainability

### **11. Cost Structure Word Count : 37**

*Think in terms of your recurring variable costs. No need to list everything here: focus on the main drivers. What are the ongoing costs to produce and deliver your innovation?*

Our cost structure primarily consists of hardware production for sensors, controllers, and energy systems; ongoing software development and maintenance; marketing and customer acquisition efforts; and continued R&D for improving our AI algorithms and renewable energy integration.

### **12. Revenue Streams: 40**

*How will you make money on an ongoing basis to invest back into your innovation? Consider sales, grants, donations, and other streams of cash to your team. Make sure you focus on ongoing revenue from operations and not the upfront funds you'll need to raise to start.*

Through funds, profits come from product sales of our hardware and software package. We'll offer a subscription model for advanced AI features, sell consumables such as seeds/nutrients, and potentially monetize the valuable agricultural data insights gathered by our system.