

Example : Solution Assessment Form (SAF)

Feasibility

This section captures the ability of the Solution to be credible (based on a resilient technology or concept) and captures if the Solution is already or has the potential to be scaled up and deployed concretely in the real world (vs. in lab).

Criteria 1 - Credibility of concept: Can the technology behind the Solution be constructed and operated as designed?

YES

NO

The Solution is based on a mobile aeroponic irrigation system which optimizes the space and allows to maximize natural light use with a controlled-climate system (based on a machine learning algorithm). Aeroponics technology has been around, in one form or another, since at least the late 1980s. The technology is fairly simple, credible, and well-known for being applicable for the type of crops described (lettuce and aromatic "leafy" plants).

Criteria 2 - Scalability: Is the manufacturing (if a product) or distribution (if a service) of the Solution at scale technically feasible?

YES

NO

Each aeroponic irrigation system can be built up according to customer's need. It is certainly scalable as the materials (for instance supports and lighting setups), as well as macro / micro- nutrients, or grow mediums, or water can be easily obtained in large quantities. The company should be able to ensure a reliable procurement of these materials when scaling up.

Environmental Impact

This section captures the ability of the Solution to have a direct positive impact on the environment over its entire lifecycle compared to a reference without any significant negative impact transferred.

Criteria 3 - Environmental benefits: Can the Solution deliver an incremental environmental benefit versus a mainstream alternative, considering the lifecycle (production, use and disposal stages) of its value chain?

YES

NO

This solution allows three key savings (i) water, (ii) energy, and (iii) CO₂. The environmental impact of cultivating lettuce/aromatic plants using aeroponic culture is lower as it consumes significantly less water (30% less) compared to both traditional cultivation systems and hydroponic systems. The automated system ensures a full control on plant growth, including a correct nutrient distribution and light adjustment. This allows to maximize the production and reduce energy consumption.

Profitability

This section captures the capacity of a Solution to deliver an economic incentive for the client and to generate profits for the seller in a 5-year timeframe, regardless of its marketing strategy, its positioning towards competitors, the novelty of the idea and the resources and experience of the team.

Criteria 4 - Client's economic incentive: Is the total cost of ownership of the Solution lower (or same) compared to the mainstream alternative? Please evaluate this considering potential hidden benefits for society, and foreseeable regulatory changes within 5 years.

YES

NO

Aeroponic systems can be expensive to set up due to the nature of the equipment involved. However, once the system is set up, it is cheaper than a traditional garden/soil farm to operate, especially considering that the average yield can be up to of ten times higher than using the conventional methods. The price per square meter compared to a like-for-like system (hydroponic) is not significantly different (approx. 50 USD more) and depending on the setup/location. Therefore, the total cost is lower and comparable to other options available on the market.

Criteria 5 - Seller's profitability: Could the Solution itself be profitable for the seller within 5 years, with a sale's price at which clients would buy it? Please evaluate this regardless of the marketing strategy and the novelty of the product.

YES

NO

The target of 5 to 8 projects to generate a profit seems reasonable, also considering that the company has secured (i) a case study in Paris (ii) built a commercial operating greenhouse in France, and (iii) signed a contract to supply one of the largest sandwich manufacturers in Europe. The Innovator identified clients willing to buy at that price and I think the company has a potential to be profitable in the next 5 years.