

Example: Solution Assessment Form (SAF)

Criterion 1 - Credibility: Can the technology behind the Solution be constructed and/or 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 simple, credible, and well-known for being applicable for the type of crops described (lettuce and aromatic “leafy” plants).

Criterion 2 - Scalability: Are the activities and processes required to produce/operate and distribute/deliver the Solution feasible at its intended scale? If the Solution is already fully commercialized, can this scale be maintained in the future?

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.

Criterion 3 - Environmental Benefits: Can the Solution deliver environmental benefit(s) versus the mainstream alternative? Consider the entire lifecycle (production, distribution, use and disposal stages).

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.

Criterion 4 - Client’s Economic Incentive: Is the total cost of ownership of the Solution lower (or equal) to the mainstream alternative? Consider foreseeable regulatory changes within 5 years; specific actions planned to reduce the cost of the Solution; and additional socio-economic benefits.

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 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 of ownership is lower and comparable to other options available on the market.

Criterion 5 - Seller’s Profitability: Can the Solution be profitable for the seller within 5 years? If the Solution is already profitable, can this be maintained in the future? Consider both factors specific to the Solution (e.g., business case, business model) and wider developments/trends in the targeted market.

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.

Feedback Session: We would like to hear more about your opinion on this Solution and kindly ask you to answer the questions below. **Any comments in this section will not be considered for the outcome for this Solution (i.e., labeled or rejected)**, but will instead be shared with the innovator behind the Solution as an additional feedback and advice. These comments will be included in the Assessment Summary Report alongside your comments on the five assessment criteria and the outcome for the Solution (i.e., labeled or rejected). *Please provide single feedback addressing the questions below:*

- What are the weaknesses of the Solution, and how could these be overcome?
- What are the strengths of the Solution that could be exploited to maximize its impact?
- Do you have any advice to aid the implementation of the Solution?
- Do you have any wider recommendations for the innovator to explore in more detail?

One of the strengths of this Solution is that the technology behind it has been around since 1980s, and all supplies needed for its production can be easily found in large quantities. If the company aims the internationalization of the Solution, it then should care to establish sustainable (and strategic) relationships with key suppliers to avoid any liability that would result in short supply, impacting then the price. Beyond the water and energy savings, Aeroponic systems have the potential of reducing soil pollution as they are usually healthy enough to resist to pests, therefore requiring less pesticides. In these systems, growth happens much faster and occupies less space than mainstream crops. This should be a competitive advantage to be explored in the marketing strategy of the product.