# 1. Preamble

## 1.1. Agreement

#### **Solution Submission Form summary**

The Solution Submission Form (SSF) consists of 2 parts. You are first requested to fill in and submit the first part which will help the Foundation define if your solution can be listed in our Solution Explorer. If successful, your solution will be listed and you will have access to the second part, which you will be able to fill out to apply for the Solar Impulse Label.

Please note that Solutions that are updating their Solution through the Label Update Program have direct access to the whole Submission Submission Form (Part 1 and 2) since their Solution is already labelled and on the Solution Explorer.

#### Agreement signature

By submitting my solution(s) to be assessed for the World Alliance 1,000 Efficient Solutions Portfolio, I agree to (...).



I CONFIRM MY AGREEMENT WITH THIS DECLARATION

#### **References and sources**

Please remember that, throughout all this application form and each time you are referring to or using information and data to support your argumentation, you shall mention your references and sources.

#### (1) Public Information 🥚

**Public Information** 

The elements inserted in this section are public and will be used to create your Solution's profile page on the Solar Impulse website.

#### (2) Information with restricted access

Information not shared publicly, is to be used for the Expert's evaluation only

The aim of this Section is to allow the Experts to clearly picture, and therefore understand the nature of the Solution being described, what it does, and how it works. You must include qualitative and quantitative information that can be described precisely and measurably.

# 2. Solution's brief

# 2.1. General information 🔴

#### Name & Website

To help us identify your solution throughout the assessment process, please provide the following information

SOLUTION'S OFFICIAL NAME

Solution Header Image

(This can not be the same as the company name)
PLANTS HUB - Soilless Aeroponic Growing
System
SOLUTION'S WEBSITE LINK
www.plantshub.it



**PICTURE 3** 

#### Videos

Once labelled, this video will be used to create your Solution's profile page on the Solar Impulse website, the video must be:

- About the Solution NOT the company;
- High quality and professional (no home-made);
- From a public domain (e.g. youtube link);
- In English or with English subtitles.

VIDEO

www.youtube.com/plantshubsolutionvideo

#### **Photos**

Once labelled, these pictures will be used to create your Solution's profile page on the Solar Impulse website, photos must be:

- About the Solution NOT the company;
- High quality and professional (no home-made);
- Print quality (up to 10 MB per picture);
- .jpg or .png.

PICTURE 1

PICTURE 2



#### How would you describe your Solution in one sentence, in simple terms?

The information must be comprehensible to a non-expert audience (general public).

- It should ideally be 90 characters (min. 70 max. 120)
- Example: "A heat exchanger using solar power to (pre)heat domestic water in buildings" ONE SENTENCE DESCRIPTION

An urban farming system using aeroponic technology to produce leafy plants for the food retail industry

PITCH DECK (Restricted Information, will not be used publicly)

Please upload a general Pitch Deck describing your Solution and your Company in a few pages

PitchDeck.pdf	BROWS
Uploaded	BROWS

#### Solution descritpion:

Please describe your Solution in 1 paragraph for the general public.

#### PUBLIC SHORT DESCRIPTION

In traditional farming, growing an adequate amount of healthy food is a big challenge. Moreover, protecting the crops from inclement weather, reduction in fertile land due to growing industrialisation and urbanisation, and low availability of cultivable land, are big hurdles for traditional farming. The increasing consumer demand for pesticide- and herbicide-free food and the growing requirement to reduce the carbon footprint of traditional agricultural practices are among the major factors supporting the wide adoption of aeroponics farming across the globe. PLANTSHUB- Soil-less Aeroponic Growing System aims at providing a sustainable, profitable, and ecologically healthy option to traditional farming for small, medium, and large food retailers. This Solution relies on indoor farming techniques and controlled environment agriculture technology, to improve plant development stages, growth, and health.

Please describe briefly the main environmental benefit of the Solution for our team to assess the eligibility of your Solution.

ENVIRONMENTAL BENEFIT

*Our Solution does not degrade any soil (and does not depend on soil quality), offers food security resilience and enables strong water savings (70-90% less water), in addition to food waste reduction. The main advantages of the technology we are using are described in the following paper:* 

<u>https://www.researchgate.net/publication/374616820\_Hydroponics\_and\_Aeroponics\_Advanceme</u> <u>nt in Soilless Cultivation</u>

Please describe briefly the main economic benefit of the Solution for our team to assess the eligibility of your Solution.

ECONOMIC BENEFIT

We estimate a payback time for the Solution in around 3 years of consistent usage of the Solution,

since the food produced locally does not need to be bought and transported. The main operating costs of our solution is the electricity usage, but the savings are enabled thanks to the reduced supply chains, reduced food wasted and packaging.

#### What is your client buying? The Solution is a:

#### Product

\*when online you will visualise the three key categories to select from: product, process, and service.

#### Solution tagging

Those tags will be used to filter your Solution on our Solution Explorer, in addition to identifying the experts that will assess your Solution in case you apply for the Solar Impulse Label. Please only select the most relevant tags.

\*when online you will visualise the tagging options

#### What is the state of maturity of your Solution?

Please note that if you do not have a prototype yet at 1:1 Scale for your Solution, you cannot be eligible to obtain the label nor to be featured on the Solutions Explorer.

TRL 4 / 5 - Prototype validation	TRL 6 / 7 - Prototype demonstration 1:1
Technology conceptualised and validated in a "laboratory" environment	The Solution has been tested and demonstrated in its operational or lab environment at a 1:1 scale
<b>TRL 8 - System complete and qualified</b> The solution has reached its final version and its commercialisation is imminent.	<b>TRL 9 / CRI 2 - Commercial Trial Small</b> <b>Scale</b> The solution has been commercialised at a small scale
TRL 9 / CRI 3-4 -Commercial Scale Up / Multiple Commercial Applications The solution has achieved a "Market Proven"	TRL 9 / CRI 5-6 - Market Competition Driving Widespread Deployment / "Bankable" Grade Asset Class
status	The solution has achieved a "Market Leader" status

TRL 9 / CRI 2 - Commercial Trial Small Scale

# In which geographical areas the Solution is currently available (tested) or sold?

#### REGIONS

#### Europe

\*when online you will visualise a list of individual countries as well as continents.

♣

## 2.2. Public success story 🔴

#### Implementation Story:

Please give an example of a specific implementation story with a client worth sharing (mandatory for the label application if the maturity of your solution is at or above TRL 9).

•By documenting an implementation story of your Solution, it will be more appealing to adopters on our Solution Explorer and your Solution page will get more traction.

•If you have multiple case studies, please choose one to consider here. You will be able to register more case studies from your Dashboard for us to display on our website.

•If useful, this information might be displayed in our implementation case studies map (so make sure the information provided is not confidential)!

Implementation Story Title

MyMarketFriend used Plantshub in Milan

REGION (List of countries to select from)

Italy

Client

**MyMarketFriend** 

Implementation Date

15/07/2022

#### Description

Please describe the implementation story and feel free to add the environmental and financial impact of your implementation story, a photo and any testimony you might have from a client.

Our first big project was for a client called MyMarketFriend in Milano who installed our MVP unit to produce fresh greens in 2021. This year, their investment is expected to be paid back, since they have already sold 6 tons of greens at their standard price, with a much lower cost than from their previous suppliers. From next year, every saving made thanks to Plantshub will directly benefit the client and Plantshub will only supply the seeds. It is estimated that over 3 tons of plastic have been saved from packaging since the installation of Plantshub at MyMarketFriend. Photo



#### Home / Dashboard / Create a solution

Link: Please insert any links you might have (articles, web pages) that show your implementation story (Optional)

www.MyMarketFriend.it/Plantshubcollaboration

IMPACT AND RESULTS

Please describe the impact and results of your implementation story:

•From an environmental Impact point of view (yearly Tons CO2eq saved, materials/waste saved, energy impact, etc..)

•From an economic point of view (monthly savings, payback time, ROI, etc..)

MyMarketFriend has reported 18% savings in food waste in transportation compared to their conventional farms that are located further from the city. In addition, they have reported 73% less water consumption per kg output (mainly Tomatoes and Greens). Economically, their initial investment is expected to be paid back next year, for a total of 3 years.

#### Location of the implementation:

Please indicate where this solution has been implemented.

TYPE THE IMPLEMENTATION ADDRESS

10201 Via Italia		
CITY		

Milan

REGION

Italy

### GRANTS:

GRANTS, RECOGNITIONS OR FUNDING

Are there any specific grants or recognitions, or funding you have acquired for your Solution in general? (All TRLs)

We have been listed as one of the 10 most promising scale ups of italy in 2023 by Fornes magazine. Here is a link: fornes.it/top10Sustainabilityscaleups/ranking/2023

#### Attachments

You can upload here attachments to back up your answers.

Please make sure that all the attachments are in English, are in common formats (excel, PDF, png/jpeg) and that you mention the attachments in your written answer.

#### CaseStudyDetails.pdf

Select file for upload BROWS

# 3. PREAMBLE FOR THE LABEL

## 3.1. SIF Label 🔵

#### **SIF Label Submission**

In the following sections, you are asked for more detailed information about your Solution to have it evaluated, first internally and then by our external independent experts, to potentially obtain the Solar Impulse Efficient Solution Label. The Label is awarded based on 3 main criteria, each represented by a section below. Please note that while you fill the following sections (3 to 6), you should also check sections 1 and 2 to ensure they are still up to date.

#### Solutions Submission form & Quality control

A minimum level of quality and level of information is required in the Solution Submission Form, the Solar Impulse Foundation will reserve the right to request more information, rewrite, or reject an application before the expert assessment if the file does not meet the expected level of quality.

Writing Style.

The submission will undergo evaluation by independent experts who will use specific criteria to determine whether or not to award the Efficient Solution label. Consequently, the information presented should not have a marketing focus but should instead be directed towards the assessors who are experts in the field. The provided information should be in-depth, pertinent, and comprehensive, with supporting evidence such as sources (links or references) and, when required, attached documents.

#### **Mainstream Alternative**

A clear definition of the mainstream alternatives (what your Solution aims to replace) serves as the foundation for evaluating the solution's strengths, challenges, and potential impact. The mainstream alternative is the main alternative to the Solution which currently serves a large share of the market, at least 40% in the same geographical context. Once you've identified and described your mainstream alternative, use this reference to compare and discuss various

#### Home / Dashboard / Create a solution

aspects of your solution. The chosen reference should remain consistent throughout the submission form and will be the basis for evaluating different criteria for the label.

## **Documents Upload**

Throughout the submission process sections, you will be able to upload documents that contain relevant information on your solution as "supporting documents" to accompany and support your answer in the relevant fields.

### **Experts Chatbox**

During the evaluation process, after your submission from has been reviewed and validated by the SIF Team and is sent to Experts for Assessment, Experts may engage in anonymous online chats (through the Solar Impulse Foundation website) with you to gather more details about the Solution. Quick responses expedite the evaluation. Confidentiality rules apply to these chats, and information sharing through other channels is discouraged due to confidentiality concerns.

External Review of the Labelling Procedure

If you are applying for the Solar Impulse Efficient Solution label, your solution submission and its assessment can be reviewed externally by an audit company, in order to ensure the rigorous, complete, valid and impartial enforcement of the labelling procedure by the Solar Impulse Foundation.

#### **Expert Pool restrictions**

You are given the possibility to signal some of the listed entities below if you consider there is a risk of conflict of interest, a relational issue or any reason you consider relevant. These will be excluded from the Expert Pool as a consequence. Keep in mind that each entity you blacklist represents a number of Experts that won't be able to assess your solution, i.e. an additional time delay for your solution to undergo the whole application process.

#### None Selected

\*when online you will visualise a list of all the entities our Experts belong to.

It is important to note that we onboard new experts every week and that we cannot guarantee that the above list is up to date. Write here the name in capital letters separated by a coma of entities (not listed above) you do not want to be assessed by specifically.

#### FURTHER RESTRICTIONS

None

Home / Dashboard / Create a solution

# 4. Feasibility & Scalability

# 4.1. Technical credibility 🔵

# Describe how your solution functions and its technical aspects (operating principles, type of technology, etc..).

TECHNICAL ASPECTS

Please make sure you include any technical document/patents you have showing how the solution functions.

The plants are grown without sun or soil in a fully controlled indoor environment; the system relies on the latest technologies applying smart-light, smart-nutrition, and smart-pest-management. Indeed, the whole system is constantly monitored (through continuous data collection) and data points are used to test and improve the growing system using AI and forecasting models. The real-time monitoring can also ensure that high-pressure pumps, sprinklers, and timers are constantly controlled to prevent costly breakdowns that would result in crop-loss. The patent for this solution is available under ID-EU1009:12 at https://worldwide.espacenet.com/.

In order to enhance the credibility of your Solution, mention the internal expertise and supporting networks that helped develop your Solution.

HUMAN ASPECTS

The company started in 2018 with 2 founders, and the team today is constituted of 40 people, with very different profiles and backgrounds. Under the leadership of the CEO, the company is structured in three teams: 5 PhD graduates and 5 Post-docs from prestigious universities and 10 engineers with over 20 years of experience coming from different industries working on R&D. In addition our team is composed of 5 graduates from the best business schools in the marketing and sales team and 15 experienced technicians in the manufacturing team (also in charge of setup and maintenance).

## 4.2. Scalability & Business Environment 🔵

Provide details about your total market size, including the Total Addressable Market (TAM), Serviceable Addressable Market (SAM), and Share of Market (SOM). Explain how you arrived at these market size estimates and any assumptions used in the calculations. Also, please elaborate on your go-to-market strategy (plan to deliver your unique value proposition to customers and to achieve a competitive advantage).

#### MARKET ANALYSIS

The demand for aeroponics industry is expected to increase rapidly, owing to rise in popularity of organic food and disease-free environment in the agriculture sector. As per the report published by Allied Market Research, the global aeroponics industry was projected at \$578.7 million in 2018 and is anticipated to hit \$3.53 billion by 2026, registering a CAGR of 25.6% from 2019 to 2026. Therefore, the SAM for the company would be approximately \$3.53 billion by 2026, accounting for the total revenue potential within the global aeroponics market. We aim to capture a SOM of, say, 20% of the projected market size by 2026, which would amount to approximately \$706 million (\$3.53 billion \* 20%).

What is the mainstream alternative currently used on the market that your solution aims to replace? This alternative should represent the most widely used alternative currently (at least 40% of your potential client's current usage). It will be the reference for comparison of the environmental impact and price comparisons in the next sections. For example, the mainstream alternative for a solar panel is usually not installing a solar panel and using electricity from the grid.

MAINSTREAM ALTERNATIVE

The most common alternatives to our solution are the usual production of fruits and vegetables with conventional agriculture, usually in hotter climates, or the use of heated greenhouses for food production. This will depend on the country of usage and the type of food.

What other alternatives are currently available in the market, and how does your solution distinguish itself from its closest competitors?

**BUSINESS OPPORTUNITY** 

There are other aeroponic/hydroponic solutions in the market such as AeroPon or UrbanGreens. That said, the particularity of PlantsHub is that we don't only offer the hardware, but an all-in-one solution with preliminary studies, supply of the seeds, and monitoring of the operations services. This helps us gain the trust of our potential customers before they make their first steps into the urban farming world. What is your strategy for scaling up your Solution? Explain any partnerships or distribution channels that you will leverage to acquire and retain customers as you scale up.

#### STRATEGY

Our strategy for scaling up revolves around aggressive market expansion, product diversification, and continuous technology innovation. To enter new markets, we'll conduct thorough research and employ localised marketing strategies, forming strategic partnerships with local retailers and agricultural experts. Product diversification will involve ongoing R&D efforts to introduce new crops into our indoor farming systems. Our technology innovation focus includes developing smart farming solutions, automation, and data analytics for optimised crop production. By implementing these measures, we aim to meet the increasing demand for pesticide-free, locally-grown produce while ensuring sustainability, innovation, and customer satisfaction remain our top priorities.

#### **Attachments**

You can upload here attachments to back up your answers.

Please make sure that all the attachments are in English, are in common formats (excel, PDF, png/jpeg) and that you mention the attachments in your written answer.

Technical Drawing & Dimensions.pdf Functioning principles of aeroponic systems.pdf

Select file for upload BROW

# 4.3. Public Technical Facts 🔴

# What are the two key technical facts about your solution that are simple for the general public to understand and valuable to share?

For example: the smallest unit can meet 4 medium-sized households' needs in vegetables all year round

**KEY TECHNICAL FACT 1** 

The Technology used is compatible with most Urban Environments and various types of cultures

KEY TECHNICAL FACT 2

The smallest unit can meet 4 medium-sized households' needs in vegetables all year round

KEY TECHNICAL FACT 3 (OPTIONAL)

# 5. Environmental impact

# 5.1. SEI 🔴

We employ an Excel-based tool to estimate a Solution's environmental impact relative to its mainstream alternative(s). In order for us to make this estimation, you are requested to fill the fields below and upload any other relevant environmental impact documents you might have.

If a recent complete third-party Life Cycle Assessment (LCA) or Environmental Product Declaration (EPD) is available, the fields below can be skipped, and these documents can be uploaded instead.

After the initial submission, the Solar Impulse team will estimate the Solution's Environmental Impact (SEI) using the Excel tool (<u>SEI Excel File Example Product</u>). During the subsequent review phase, you will be able to view the provided estimation and make improvements if needed. Finally, you will upload the SEI (.xlsx) for expert assessment.

Please be aware that the results generated can only be used publicly on the Solution's page of the Solar Impulse website. These results are not a substitute for a full third-party Life Cycle Assessment (LCA), however, they may be reused internally by the Solution provider.

Please provide a description of a typical case study of your Solution and compare its environmental impact to the mainstream alternative that you have described in the sections above. Please note that the case study can be the same one used in SSF part 1.

TYPICAL CASE STUDY ENVIRONMENTAL IMPACT DESCRIPTION

Our typical case study (which is pretty similar to the one described in SSF part 1) involves a unit of 100 m2 of usable harvesting surface. We consider a client in Milan Italy. This type of surface usually produces around 2tons of usable vegetables (usually 40% tomatoes, 50% lettuce and the rest are microgreens). Compared to the mainstream alternative (Conventional agriculture in Italy), our clients have seen 18% savings in food waste in transportation compared to their conventional farms that are located further from the city. In addition, they have reported 73% less water consumption per kg output.

What are the main materials invovled in the production of the Solution and of the Mainstream Alternative (if the mainstream alternative was used) for the case study? Please list the main materials and their approximative weights, for both the Solution and the Mainstream Alternative. If known, please also mention the energy consumption needed for the manufacturing of your solution. For example: to produce the 4 units installed, the following materials are used (approximation): X kg of Steel (stainless), X kg of Aluminum, X g of Copper, X g of Glass, X g of Silicone, X g of Rubber, also XkWh of electricity was needed for the assembly process, for the 4 units. PRODUCTION PHASE

Our farming units are installed in existing commercial spaces (such as old garages or small industrial facilities or labs inside the cities). To install a 100m2 unit, we can estimate the following materials involved:

-10 tons of steel and 2 tons of aluminium for the racks

-2 tons of HDPE plastic for the water containers

-Around 500kg of copper

-The units combine natural lighting with artificial lighting. We use LED lights with a total power of 500W.

-We also have to complement the water network with around 350 l/min Centrifugal irrigation pumps. Those are mainly made of stainless steel and some electronics and weight 40 kg each

Please describe where the main materials listed in the Production phase entry are produced and how they are transported, during their whole life cycle

TRANSPORT

Most of our metals are sourced in Europe, most of it in Germany and are transparted by road. The pumps are made in Italy and all the electronics/LEDs come from China (via water Shipping containers). The components we use are pretty standards so we have the flexibility of choosing the best suppliers.

Please list the main resources consumption (energy, water, etc...) during the use phase, for the solution and the mainstream alternative in the context of the case study.

USE PHASE

A conservative number for the energy consumption would be around 390 MWhe per year (taken as an average of our clients for this type of surface). The units are build in an already existing commercial space. About the water usage, we consumer around 30 L of water per kg of tomatoes produced, this is an order of magnitude lower than conventional agriculture wich consumes up to 180L of water per kg (source:

<u>https://edepot.wur.nl/156932#:~:text=Between%204%20and%20300%20litres,300%20to%204%20l</u> <u>itres%2Fka</u>.) That said, conventional agriculture does not involve LED energy consumption, but it is important to note that it requires fuel for tractors operations. Also, hydroponics use half the quantity of Nitrogen Based fertilisers per kg of products compared to conventional agriculture and require no pesticides.

(/www.edengreen.com/blog-collection/hydroponics-vs-traditional-farming#:~:text=Sustainable%20 Farming%20and%20Environmental%20Impact.pesticides%20to%20protect%20their%20crops.) Please describe how the materials listed in the Production phase entry are disposed (recycled, Landfil, re-used, etc..)

DISPOSAL PHASE

All our components and materials are pretty standards and are usually recycled (Steel, plastic). Some of the packaging might be incinerated. This will depend on the countries infrastructure and regulations.

#### Attachements

You can upload here attachments to back up your answers.

Please make sure that all the attachments are in English, are in common formats (excel, PDF, png/jpeg) and that you mention the attachments in your written answer.

Plantshub\_Environmental\_Impact.pdf Case\_Studyl\_Impact.pdf Plantshub\_SEI\_.xlsx

Select file for upload BRO

## 5.2. Public Environmental Impact Facts 🔴

What are at least two Environmental Impact facts about your solution that are simple for the general public to understand and valuable to share? (Please note that we require at least 2 facts in total, which can both be under a single category that you can select below)

Make sure that all the public key facts you show here are explained in the answers provided above. Those sentences are to be used publicly in your Solution page if the label application is successful.

- A REDUCES GHG EMISSIONS BY EITHER DECREASING DIRECT ENERGY CONSUMPTION OR GENERATING CLEANER ENERGY.
- **X** B REDUCES GHG EMISSIONS NOT DIRECTLY RELATED TO DIRECT ENERGY USAGE REDUCTION / PRODUCTION
- X C HAS A POSITIVE IMPACT ON BIODIVERSITY/LAND USAGE
- X D ENABLES WATER SAVINGS
- E HAS POSITIVE IMPACT ON AIR POLLUTION / HUMAN HEALTH
- X F REDUCES WASTE STREAMS, IMPROVES CIRCULARITY / AVOIDS RESOURCE DEPLETION
- G OTHER

\*In the platform, you will be able to select a category and document one or two fact for the category selected. Here, feel free to directly write at least 2 environmental impact facts below

#### PUBLIC FACT 1 - B

*Up to 60% less GHG emissions for the production of 1 kg of tomatoes compared to using heated greenhouses in winter.* 

PUBLIC FACT 2 - B

*Up to 30% less GHG emissions for the production of 1 kg of tomatoes compared to conventional agriculture, because of the lack of transport, packaging and food waste.* 

PUBLIC FACT 3 - C

Considerably less land use needed to produce food (no fertile land needed)

PUBLIC FACT 4 - D

Around 90% less water used compared to conventional agriculture

PUBLIC FACT 5 - F

50% of food is wasted in transport, which is minimised thanks to the solution

# 6. Economic Incentive

## 6.1. Price & Economic Benefits 🔵

Explain in as much detail as possible the client's economic incentives (Price, ROI, Payback time, etc..) for your Solution and how it compares with the mainstream alternative. It is highly recommended to upload a document (excel sheet or pdf) describing a case study with the financial aspects for your client and provide sources.

It is highly recommended to upload a document (excel sheet or pdf) describing a case study with the financial aspects for your client and provide sources.

#### CLIENT'S ECONOMIC INCENTIVE

Let's consider a client who sells approximately 1 ton of tomatoes per month and usually buys the kg of tomato 0.5 EUR/kg or 500EUR/Ton. With the basic model of the solution, this amount can be produced for an operating cost of 15 cents per kg tomato (energy, labour, and seeds supplied by Plantshub, details in the Excel file), so a saving of 0.35EUR per kg is done (or 350EUR per Ton, or a saving of around 70%). The total price to buy and install the Solution is 12000 EUR. In order to bay back this initial cost, the customer needs to sell 12000/350=34 Tons of Tomatoes, so 34 months (at a rate of 1 ton per month) thus the payback time is less than 3 years. More scenarios and details re are described in the attached document.

# What is the initial capital intensity of your Solution for its adopters? Please elaborate.

By initial capital intensity, we mean what approximative percentage of the total cost of ownership of your Solution is happening when the Solution is purchased/installed, compared to the operating costs of the Solution through its lifetime. For example, a PV panel has a High Capital Intensity (>50% of the total cost) since installing PV panels requires a large investment, and the operating costs are less important. On the other hand, a software as a service program based on subscription has No or very limited capital investment (<10% of the total cost) since the solution is paid every month while it is used.

A - No or very limited capital investment (<10% of the total cost)

B - Limited initial capital intensity (10-30% of the total cost)

C- Medium capital intensity (30-50% of the total cost)

D- High Capital intensity (>50% of the total cost)

#### Capital Instensity Elaboration

As mentioned above, the Capex of our Solution for a small unit is 12000EUR, and the yearly operating costs are around 150 EUR per ton of tomato, with 1 ton per month that is 150x12 EUR per year so 1800 EUR. Over a 10-year lifetime (conservative) before strong renovation work that is 18 000 EUR. Thus The capex represents more than 50% of the TCO. Our clients are usually companies with budgets that allow them to finance this project, and they are pretty confident in the payback time that we provide since there are not too many uncertainties compared to other investment options.

#### **Attachements**

You can upload here attachments to back up your answers.

Please make sure that all the attachments are in English, are in common formats (excel, PDF, png/jpeg) and that you mention the attachments in your written answer.

Client case study ROI Example.xlsx

Select file for upload BROWSE

## 6.2. Public Economic Facts 🔴

What are at least two economic facts about your solution that are simple for the general public to understand and valuable to share? Please select one of the options below and write your 2 facts under that option.

Make sure that all the public key facts you show here are explained in the answers provided above. Those sentences are to be used publicly in your Solution page if the label application is successful.

A - IS DIRECTLY CHEAPER THAN THE MAINSTREAM ALTERNATIVE

**X** B - HAS A LOWER TOTAL COST OF OWNERSHIP COMPARED TO THE MAINSTREAM ALTERNATIVE (WITH A GIVEN PAYBACK TIME)

\*In the platform, you will be able to select a category and document one or two facts for the category selected. Here, feel free to directly write at least 2 environmental impact facts below

KEY ECONOMIC BENEFIT 1

The installation is usually paid back in 2 to 5 years which is very fast compared to the guaranteed operation time of 10 years (in practice the system can last more than 15 years).

KEY ECONOMIC BENEFIT 2

The marginal cost to produce vegetables with the Solution is 60 to 85% cheaper than buying them from suppliers.

KEY ECONOMIC BENEFIT 3 (OPTIONAL)