

**WORLD ALLIANCE**  
*for* EFFICIENT SOLUTIONS

by **SOLARIMPULSE**  
FOUNDATION



# EFFICIENCY ASSESSMENT GUIDELINES FOR EXPERTS

# CRITERIA TO EVALUATE

The assessment will be carried on through 3 different criteria (Detailed in the following pages):

## **1. TECHNOLOGICAL FEASIBILITY**

## **2. ENVIRONMENTAL AND SOCIO-ECONOMIC BENEFITS**

## **3. ECONOMIC PROFITABILITY**

For each of the three criteria, several sub-questions are asked to guide your answer. For each sub-question, you have to answer YES or NO and justify it with 250 minimum characters. Then, a rating between 1 and 4 is required per criterion. This rating should reflect your answers to the sub-questions.

If you wish, you may provide advice or additional feedback to the innovator in a dedicated text box. The information in the last text box will not be taken into account for the assessment, but will be seen as extra feedback given to the innovator.

## 1. TECHNOLOGICAL FEASIBILITY



### DEFINITION

**This criterion 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 in the real world (vs. in a laboratory environment) without adding constraints to the final user.



### SUB-QUESTIONS

- ▶ **Credibility of design:** Can the technology/concept behind the solution be constructed and operated as designed?
- ▶ **Scalability:** Is the procurement of goods and services, manufacturing (if a product) or distribution (if a service) of the solution at scale technically feasible?
- ▶ **User-friendliness:** Is the effort required to install and operate this solution commensurate with its benefit to the user?

## 2. ENVIRONMENTAL AND SOCIO-ECONOMIC BENEFITS



### DEFINITION

**This criterion captures the solution's potential to enable at least:**

**One direct positive impact on the environment** – referring to the scope of the following elements: energy use, CO2 emissions, water use, materials used, air quality, ecosystem preservation. The type(s) of impact(s) presented should be relevant to the application sector of the solution.

And

**A direct economic benefit** – considered in the form of Return On Investment to its final user, or any stakeholder that could benefit directly from the application of the solution.

Or

**An indirect economic benefit** that encompasses hidden economic or social gains for society. With acceptable side effects during the full lifecycle of the solution



### SUB-QUESTIONS

- ▶ **Solution's lifecycle:** Has the innovator accounted for positive and negative tangential impact to the environment over the entire lifecycle of this solution?
- ▶ **Environmental benefits:** Can the solution deliver the stated incremental environmental benefit versus the reference case?
- ▶ **User's economic benefits:** Can the solution deliver the stated financial savings to its customer buying the solution versus the reference case?
- ▶ **Social benefits:** Can the solution deliver the stated social benefit versus the reference case?

### 3. ECONOMIC PROFITABILITY



#### DEFINITION

This criterion captures the capacity of a solution OR the potential of a currently non-profitable solution to generate profits within the coming 5 years, regarding its business model, its positioning toward its competition and innovativeness of the idea and the resources and experience of the team.

#### IMPORTANT

The evaluation of this criterion should consider and analyze **the regulatory constraints/external hurdles that could be overcome with the help of the World Alliance (e.g.: lack of deployment partnerships of investments, regulatory constraints or competition that could be modified/unbalanced by institutional efforts)**. Since the main goal is to bring solutions to relevant partners, investors and institutions, the experts should not penalize the score of the solution because it might face regulatory challenges but still develop in the comment what could be those challenges.



#### SUB-QUESTION (IF PROFITABLE)

- ▶ Are you convinced that the solution is profitable, given the information provided in section 4. Economic Profitability and other sections of the submission form?

#### SUB-QUESTION (IF NOT PROFITABLE)

- ▶ **Revenue:** In reference to the breakeven quantity and date, has the innovator sufficiently defined a marketing, sales (are there clients) including pricing and distribution (access to clients) model?
- ▶ **Costs:** In reference to the breakeven quantity and date, has the innovator sufficiently accounted for manufacturing capex and operating costs?
- ▶ **Internal threats:** In reference to the breakeven quantity and date, does the team have the necessary skills and resources (patents and network) to achieve their goals?
- ▶ **External threats:** In reference to breakeven quantity and date, has the innovator sufficiently accounted for the external hurdles and compensations (such as social, regulatory, market)?

# HOW TO USE THE PLATFORM

## Solution Assessment Form

**Technological Feasibility**

I don't have enough expertise to answer the questions below. This means that you can skip the assessment of this criterion, and continue to the next criterion

There is information missing in the submission form of the innovator in order to be able to answer the questions. Please click on "open chatbox with the innovator here" to ask the innovator for the missing information

[OPEN CHATBOX WITH THE INNOVATOR HERE](#)

**Credibility of design:** Can the technology/concept behind the solution be constructed and operated as designed?

Your Justification (min. 250 char.)

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**Scalability:** Is the procurement of goods and services, manufacturing (if service) of the solution at scale technically feasible?

Your Justification (min. 250 char.)

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**User-friendliness:** Is the effort required to install and operate this solution benefit to the user?

Your Justification (min. 250 char.)

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**Overall assessment of technological feasibility**

Based on your answers to the previous subquestions, give a score from 1 to 4

Score from 1 to 4

Additional feedback / advice for the innovator. This part will not be used for the assessment, please put all your arguments in this box

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Please tick this box if you feel you don't have enough expertise to answer the questions below with confidence.

Please tick this box if the innovator's solution form lacks information needed for me to give a YES or NO answer to the questions below with confidence.

Please untick this box if you have received satisfactory answers from the chat with the innovator.

Either if you ticked the second box or have questions for the innovator, this button opens the chatbox which is an instant messaging interface to discuss with the innovator.

**About the chatbox:**

- \_It's anonymous: both experts and innovator have their identity hidden.
- \_Wait for the answer: once you have asked your question, wait for the answer to submit your assessment. We encourage our innovators to answer within 24 hours.

If you have doubts and need more information from the innovator, please ask your questions to the innovator in the chatbox. Please wait for an answer from the innovator before submitting your assessment; the SIF team collaborates with the innovator for a rapid reply. If you do not have time to wait for an answer from the innovator, then please raise your questions in the chatbox and another expert will continue to rate this criterion.

# HOW TO USE THE PLATFORM

**Environmental and Socio-economic Benefits**

- I don't have enough expertise to answer the questions below. This means that you can skip the assessment of this criterion, and continue to the next criterion
- There is information missing in the submission form of the innovator in order to be able to answer the questions. Please click on "open chatbox with the innovator here" to ask the innovator for the missing information

**OPEN CHATBOX WITH THE INNOVATOR HERE**

Solution's lifecycle: Has the innovator accounted for positive and negative tangential impact to the environment this solution over the entire lifecycle of the solution?

Your Justification (min. 250 char.)

Environmental benefits: Can the solution deliver the stated incremental environmental benefit versus the reference case?

Your Justification (min. 250 char.)

User's economic benefits: Can the solution deliver financial savings versus the reference case?

Your Justification (min. 250 char.)

Social benefits: Can the solution deliver the stated social benefit versus the reference case?

Your Justification (min. 250 char.)

**Overall assessment of environmental and socio-economic benefits**

Based on your answers to the previous subquestions, give a score from 1 to 4

Provide your final feedback / advice for the innovator. This part will not be used for the assessment, please put all your arguments for the overall rating in the text boxes of the questions above

**For each sub-question, the answer needs to be selected here.**

**Please provide sufficient text to justify your YES/NO rating to the innovator. In most cases this requires at least 250 characters.**

# HOW TO USE THE PLATFORM

Overall assessment of technological feasibility

Based on your answers to the previous subquestions, give a score from 1 to 4.

Please select your rating

Additional feedback / advice for the innovator. This part will not be used for the assessment, please put all your arguments for the overall rating in the text boxes of the subquestions above

SAVE SAVE AND CONTINUE

For each criterion a rating from 1 to 4 is required. Please base your rating on your answers on the sub-questions above. The ratings mean:

**1\_Poor:** The SSF fails to properly address the criterion OR there are serious inherent weaknesses in the submission.

**2\_Fair:** The SSF broadly addresses the criterion but there are significant weaknesses.

**3\_Good:** The SSF addresses the criterion well but with a number of shortcomings.

**4\_Very good:** The SSF addresses the criterion very well with possibly a very small number of acceptable shortcomings.



# HOW TO USE THE PLATFORM

**Overall assessment of technological feasibility**

Based on your answers to the previous subquestions, give a score from 1 to 4.

Please select your rating

Additional feedback / advice for the innovator. This part will not be used for the assessment, please put all your arguments for the overall rating in the text boxes of the subquestions above

SAVE SAVE AND CONTINUE

In this section, you can write any additional feedback regarding the criterion. You can also give personal advices to the innovator about the solution. Please know that the rating should not take in account this additional feedback. It must be justified only by the sub-questions answers.

Anytime, you can save your assessment, close the window and continue later if you want to. Once finished, a final review of your assessment will be displayed.

**Ready to submit?**

If so, click to submit your application. Please note that the assessment form will be locked and you will not be able to make any further edits.

SUBMIT MY ASSESSMENT

Once this assessment is complete, you have to click on "Submit my assessment" to validate it. This button will be at the end of the Final Review.

If you have asked a question in the chatbox, please make sure you have received an answer before submitting.

## HOW WE USE THE RATINGS



The assessment/ratings you submit will serve as a basis for the attribution of the Solar Impulse “Efficient Solution” label by the World Alliance Selection Group (WASG) to this solution.

At the same time, another expert has been assigned the same solution, and will make a similar assessment. The final outcome comes from your both assessments. For the following information, T.F. (Technological Feasibility) defines the average between your rating and the other expert’s rating for the first criterion, E.B. (Environmental & socio-economic Benefit) defines the average for the second criterion, and E.P. (Economic Profitability) defines the average for the third criterion.

To receive the label, a solution must verify the following properties:

### For the criteria

#### **TECHNOLOGICAL FEASIBILITY (T.F.) AND ENVIRONMENTAL & SOCIO-ECONOMIC BENEFITS(E.B.)**

$$\text{Impact score must} = \frac{\text{T.F.} + \text{E.B.}}{2}$$

**Impact score must be  $\geq 3$**

### For the criterion

#### **ECONOMIC PROFITABILITY (E.P.)**

**Score must be  $\geq 3$**

or

**Belonging to {2,3}**

In this case, it must be supported with comments presenting external limits (inflexible regulations, weak government incentives...) as the cause of a low score, and no significant limits related to the business model and competencies of the Member.

**You will receive news from outcome of solutions you contributed to evaluate.**