

## Rules

### Challenge “Mobile Eco-Habitat”

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### 1. Challenge Presentation

as part of its Open Innovation Programme, is launching this call for proposals aimed at identifying innovative solutions for the development of a Mobile Eco-Habitat. This challenge addresses the need for a modular, transportable, energy-efficient and adaptable solution that enables TNC to deploy temporary housing for construction teams, special operations or emergency situations. The Mobile Eco-Habitat must strike a balance between functional design, sustainability, durability and operational efficiency, incorporating technologies that enable energy autonomy, thermal comfort, ease of installation and minimal maintenance.

#### 1.1. Context

The demand for sustainable, resilient and context-adapted housing has grown significantly in Latin America, particularly in areas where geography, climate or operating conditions limit access to conventional infrastructure. This challenge seeks to develop a modular, portable and intelligent housing solution that not only meets comfort and mobility needs, but also integrates advanced principles of sustainability, energy efficiency, resource circularity and digitalisation. The Eco-Habitat concept offers an alternative to traditional shelter models, providing flexible, low-impact living that can serve temporary camps, remote operations, regenerative tourism or climate emergency responses.

### 1.2. Challenge orientation

The goal is to design, build and validate a modular housing unit with minimal environmental impact, high energy efficiency and digital autonomy, suitable for diverse operational scenarios. The solution must combine eco-efficient design and materials, passive climate control, smart monitoring of indoor comfort, renewable energy integration, and circular management of water and waste. It should be technically scalable, transportable and compatible with future upgrades. The project is expected to progress from TRL 6 to TRL 8, reaching full functionality in real-world conditions.

### 1.3. Expected impact

Eco-Habitat aims to reduce the environmental footprint of housing by replacing conventional infrastructure with lightweight, low-consumption models that comply with ESG standards and enable traceability. The solution offers TNC and its partners a flexible and innovative approach to responsible housing, supporting procurement strategies, emergency response, and long-term sustainability goals. With its replicable design and modularity, the Eco-Habitat can become a reference for public tenders and strategic partnerships across the region.

## 2. Objective of the Call

The objective of this call is to identify and select an innovative solution for the co-creation of a Mobile Eco-Habitat, capable of facilitating the integration of circular economy principles into construction and maintenance projects promoted by TNC CONTRATISTAS S.A.C.

The solution must include, at minimum, the following components:

- Be designed for rapid transport, assembly and disassembly.
- Incorporate energy self-sufficiency strategies (preferably using renewable sources).
- Ensure adequate living conditions in extreme environments.
- Be durable, low-maintenance, and suitable for intensive and repeated use.

Proposals must demonstrate a minimum Technology Readiness Level (TRL) 6 — validated demonstration in a relevant environment — at the time of submission, and present a clear technical and operational plan to evolve toward TRL 8 — complete and certified system in a real environment — by the end of the process.

This call is aimed at scalable solutions, with potential to be applied in other TNC operational contexts, reinforcing its commitment to sustainability, operational efficiency, and circularity in construction.

### 3. Requirements and Conditions for Solution Proposing Entities (SPEs)

#### 3.1 Profile and Conditions for Solution Proposing Entities (SPEs)

Participants in this call are referred to as Solution Proposing Entities (SPEs). SPEs that advance through the process must, before the end of this phase of the project, comply with the eligibility requirements established by Prolinnóvate:

- Have at least one (1) year of continuous operation.
- Be a MSME (micro, small or medium-sized enterprise), such as a startup, scale-up or innovation-driven MSME. Universities and research centres may also participate, either as part of already established consortia or by expressing their intention to join those that may be formed within the framework of this call.
- Demonstrate specialisation in one or more of the technical areas related to the challenge:
  - Development of technological solutions applied to the construction or environmental sector.
  - Materials, waste or input management with a circular economy approach
  - Design and implementation of digital tools for traceability, analysis or integration of operational data.
  - Applied innovation in sustainability, resource efficiency and urban or industrial transformation.
- Have proven capacity to develop innovative products, services or processes with market orientation.
- Demonstrate operational capacity, including a qualified technical team and adequate resources.
- Maintain an ethical and institutional commitment to the principles of sustainability, open innovation and transparency.
- Have the capacity to transfer knowledge both explicitly and tactically, through manuals, guides and technical support processes.
- Sign a collaboration agreement with the promoting company (TNC CONTRATISTAS S.A.C.) for the development, validation and/or implementation of the solution (only applicable to selected proposals).

Applications may be submitted by individual entities or formal consortia (strategic partnerships, temporary joint ventures or equivalent arrangements), provided a leading entity is clearly identified to represent the group technically and operationally throughout the process.

The participation of multidisciplinary teams and the willingness to collaborate with technical networks or open communities during the project will be positively valued.

Failure to meet these requirements at the relevant stage may prevent the formalisation of the collaboration and invalidate the continuation of the process for the selected solution.

### 3.2 Eligibility of Solution Proposing Entities (SPEs)

During the application stage, no formal validation will be applied regarding the SPE status. This verification will take place later, before the end of the current phase of the project, in accordance with the guidelines of the ProInnovate programme.

However, relevant data will be collected from the outset to facilitate this validation in subsequent stages.

### 3.3 Mandatory Information for Solution Proposing Entities (SPEs)

In line with the guidelines established by the ProInnovate programme, all applying entities must complete an additional section at this stage of the process, providing the following information:

- Legal name of the proposing entity
- Tax identification number (as applicable in the country of origin)
- Annual turnover and number of registered employees during the last closed fiscal year
- Year of commencement of operations
- Main economic activity (CIIU classification, if applicable)
- Previous experience in open innovation or co-creation processes
- Description of technological infrastructure and maturity level (TRL, if applicable)
- Strategic vision and institutional commitments to sustainability

This information will help verify the eligibility of the entities from the start of the process and prevent the evaluation of proposals that do not meet the minimum requirements.

## 4. Challenge Timeline

The process of submission and evaluation of proposals will be carried out according to the following schedule:

Phases	Dates (*)
Reception of Proposals (*)	until August 31 <sup>st</sup>
Submission of Business Case (*)	until August 31 <sup>st</sup>
Presentation of the Business Case (Online Pitch Sessions)	September 2 <sup>nd</sup>

(\*) All opening deadlines are considered from 00:00 and closing deadlines until 23:59, according to official time in Lima, Peru (GMT-5).

Proposals will be evaluated on a rolling basis according to the date of receipt, and no proposals will be accepted after the established deadlines. Any changes to the schedule will be communicated by email, therefore it is recommended to regularly check the email account used in the application.

## 5. Proposal Requirements and Contents

### 5.1 Registration Form

Proposals for the Mobile Eco-Habitat challenge must be submitted exclusively through the following official link: <https://www.fm-house.com/en/piia-fm/desafios/mobile-ecohabitat/>

On this platform, each participant must complete an online form including the following mandatory fields:

- Name of the organisation
- Contact Person
- Position
- Email
- Phone
- Country
- Proposal document upload (see section 5.2)

In addition, the following acceptance checkboxes must be ticked before submitting the application:

- "I accept the legal terms and conditions of the challenge and the platform's terms and conditions of use."
- "I declare that I have understood the information provided and that I consent to the processing of my personal data as described."

Only proposals submitted through this platform and fully compliant with the requirements set out in these rules will be considered valid.

### 5.2 Mandatory Contents of the Proposal

During the completion of the registration form (as described in section 5.1), one (1) PDF file must be uploaded in the "Upload documents" field containing at least the following content:

- A clear and detailed technical description of the solution, including its key components and methodological foundations.
- A phased work plan outlining the implementation logic, required resources and estimated timeline.
- Composition of the proposing team, including previous experience, roles, and responsibilities within the project.
- An estimate of the required resources (human, technical, and financial), aligned with the proposed scope.

### 5.3 Business Case Content

After uploading the contents indicated in section 5.2, you must send, before the closing of the Business Case submission period, by email to [piiia@fm-house.com](mailto:piiia@fm-house.com), the following:

- A business case or feasibility document that allows the evaluation of the technical and economic viability of the proposed solution. This document must include, among other elements:
  - Implementation and scaling model
  - Technical and financial assumptions
  - Expected impact indicators
  - Potential barriers and mitigation strategies

In addition, shortlisted teams must be prepared to deliver a technical presentation (pitch) before the Evaluation Committee, summarising their proposal, substantiating its viability, and responding to specific questions about their approach.

### 5.4 Minimum Technical Requirements

Solutions must be at a minimum Technology Readiness Level (TRL) 6 at the time of application and must present a coherent plan to reach TRL 8 during the process. Participating entities must also demonstrate relevant technical and operational experience, as well as the capacity to implement the proposed solution.

### 5.5 Accepted Languages

Proposals may be submitted in Spanish or English, using only the official digital form enabled for this challenge. Proposals submitted through other channels or outside the established deadline will not be accepted.

### 5.6 Validation and Interviews

Teams must be available to participate in technical clarification meetings, interviews, or other validation sessions convened by the Evaluation Committee. Lack of availability may result in exclusion from the process.

### 5.7 Intellectual Property

Participants will not be required to transfer intellectual property rights over the proposed solution. However, they must guarantee the originality of their proposal and declare that they are in a position to grant TNC a non-exclusive, royalty-free licence to use the deliverables generated within the scope of the project.

### 5.8 Acceptance of Conditions

By submitting a proposal, applicants expressly accept all terms of the call, including legal conditions, evaluation criteria and decisions made by the Evaluation Committee. Submission also

implies a commitment to the values of sustainability, transparency, and responsible innovation promoted by TNC.

## 6. Evaluation Procedure

Proposals will be assessed based on a combination of common criteria, applicable to all challenges, and specific criteria, tailored to the technical and strategic objectives of the “Circular Construction Hub” challenge.

### 6.1 Evaluation Phases:

**Initial Evaluation** - Compliance with the minimum requirements and overall coherence of the proposal will be verified. This phase runs from the beginning of the proposal submission period until the deadline for business case submission.

**Technical Evaluation** - A deeper analysis will be conducted on the proposals that pass the previous phase, focusing on the technical and operational aspects of the solution. This phase runs from the business case submission to the deadline for its presentation.

**Final Evaluation** - A comparative assessment of the finalist proposals will be carried out. If deemed necessary, proposing teams may be invited to deliver a complementary presentation to the Evaluation Committee. This phase takes place from the business case presentation through to the final deadline for official communication of results.

### 6.2 Evaluation Criteria:

The evaluation will consider, among other aspects:

- The level of innovation and originality of the solution.
- Its alignment with TNC's operational needs in demanding logistical contexts.
- The technical feasibility and maturity level of the proposal, including its planned evolution from TRL6 to TRL8.
- The degree of energy self-sufficiency, resource efficiency and quality of living conditions.
- Ease of installation, dismantling and maintenance under real-world conditions.
- The experience and technical capabilities of the proposing team.

The evaluation process will be carried out in successive stages, combining document review, technical analysis, and committee deliberation, all integrated into a global assessment matrix.

## 7. Questions and Support

If any questions are not addressed in the available documentation, interested teams may contact the organising team via the following email address:

[piia@fm-house.com](mailto:piia@fm-house.com)

All enquiries must be sent in Spanish or English, clearly indicating in the subject line the challenge to which they refer. No individual responses will be provided through other channels, in order to ensure equal conditions for all participants.

## 8. Clarifications and Final Decisions

Any doubt, ambiguity or inconsistency identified during the process will be resolved by the Innovation Committee of the challenge's promoting entity, in coordination with the programme's technical team.

Their decisions shall be final and will be communicated in due time to the participants concerned.