



## UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME

**REQUEST FOR INFORMATION (RFI)**

This notice is placed by UNHABITAT. The accuracy, reliability and completeness of the contents of furnished information is the responsibility of UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME. You are therefore requested to direct all queries regarding this RFI to UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME using the fax number or e-mail address provided below.

**Title of the RFI:**

Construction of Affordable Housing Units through 3D Printing Technologies

**Date of this RFI:** 14 May 2025**Closing Date for Receipt of RFI:** 27 May 2025**RFI Number:** RFIUNHABITAT23648**Beneficiary Country/Territory:** Iraq**Commodity/Service category:** Engineering Design and Construction**Address RFI response by fax or e-mail to the Attention of:** Ali Ihsan**Fax Number:** n/a**E-mail Address:** ali.ihsan@un.org; unhabitat.roas.clarifications@un.org**UNSPSC Code:**

30000000 - Structures and Building and Construction and Manufacturing Components and Supplies  
22101900 - Building construction machinery and accessories  
72000000 - Building and Facility Construction and Maintenance Services  
72110000 - Residential building construction services  
81100000 - Professional engineering services  
81101500 - Civil engineering



## DESCRIPTION OF REQUIREMENTS

### Purpose of the Request:

The United Nations Human Settlements Programme (UN-Habitat) is seeking technical information and indicative cost estimates from qualified vendors and service providers regarding the feasibility of deploying 3D printing technology for the construction of affordable housing units in Mosul and Ramadi, Iraq. This Request for Information (RFI) aims to assess the technical suitability, material specifications, logistical requirements, and associated costs for implementing 3D-printed housing solutions in the context of post-conflict urban recovery and reconstruction.

### Background:

UN-Habitat is exploring innovative construction technologies to accelerate the delivery of sustainable, cost-efficient, and climate-resilient housing in Iraq's conflict-affected cities. 3D printing construction is being considered as a potentially viable solution for delivering rapid, high-quality housing that meets minimum habitability standards while reducing material waste and labor dependency.

### Scope of Information Requested:

Interested parties are invited to provide detailed responses to the following inquiries:

#### 1. Technology & Equipment Specifications:

- a. What 3D printing systems (e.g., gantry-based, robotic arm) are available for large-scale construction suitable for Mosul and Ramadi's climatic and ground conditions?
- b. What are the space, energy, and terrain preparation requirements for setting up the 3D printing equipment on-site?

#### 2. Material Suitability and Source ability:

- a. What construction materials (e.g., cementitious mixtures) are compatible with the proposed 3D printing technology?
- b. Can these materials be sourced locally in Iraq, or would they need to be imported? What are the sustainability characteristics of these materials (e.g., thermal performance, embodied carbon)?

#### 3. Housing Output and Capacity:

- a. What is the average time and cost to produce a single housing unit of approximately 60–70 m<sup>2</sup> using 3D printing including mobilization and demobilization?

#### 4. Power and Labor Requirements:

- a. What are the energy needs of the equipment, and can the system operate using solar power or hybrid solutions in remote areas?
- b. What are the training needs for local operators and technicians to ensure safe and efficient usage?

#### 5. Standards and Durability:

- a. Are the printed structures compliant with Iraqi national construction codes or international standards for structural integrity, insulation, and seismic performance?
- b. What is the expected lifespan and maintenance requirement of a typical 3D-printed house?

#### 6. Additional Information:

- a. Suppliers are encouraged to attach brochures, technical specifications, photos of prior projects, and references for similar deployments in post-conflict or developing country contexts.



### **SPECIFIC REQUIREMENTS / INFORMATION (IF ANY)**

Vendors must be registered in the United Nations Global Marketplace (UNGM). Kindly refer to RFI instructions on registering as a vendor in UNGM.

### **NOTE**

Information on tendering for the UN Procurement System is **available free of charge** at the following address: <https://www.ungm.org/Public/Notice>

Only the United Nations Global Marketplace (UNGM) has been authorised to collect a nominal fee from vendors that wish to receive automatically Procurement Notices or Requests for Expression Of Interest. Vendors interested in this Tender Alert Service are invited to subscribe on <http://www.ungm.org>

***Vendors interested in participating in a potential future solicitation process should submit the Vendor Response Form of this RFI electronically (through the link available on the next page) before the closing date set forth above.***



# VENDOR RESPONSE

## NOTICE

- Companies can only participate in solicitations of the UN Secretariat after completing their registration (free of charge) at the United Nations Global Marketplace ([www.ungm.org](http://www.ungm.org)).
- Please verify that your company is registered under its **full legal** name on the United Nations Global Market Place ([www.ungm.org](http://www.ungm.org)) and that your application for registration as vendor has been submitted to the **UN Secretariat** in the same site, to be able to participate in any potential solicitation process as a result of this RFI.
- While companies can participate in solicitations after completion of registration at Basic Level, we strongly recommend all companies to register at least at **Level 1** under the United Nations Secretariat prior to participating in any solicitations.
- Companies are reminded of the restrictions of employment of former UN personnel that were involved in the procurement process during their last three years of service as per [ST/SGB/2006/15](#), including (a) employing those personnel for one year after separation of service and (b) allowing those personnel to communicate with, or appear before, active UN personnel for matters related to the procurement process for two years after separation of service. Violation of the provisions of ST/SGB/2006/15 may lead to suspension of the registration of the company as a UN vendor.

**PLEASE NOTE: You should submit your response to this RFI electronically at:**

<https://www.ungm.org/Public/Notice/266513>

**In case you have difficulties submitting your response electronically, please contact [ali.ihsan@un.org](mailto:ali.ihsan@un.org); [unhabitat.roas.clarifications@un.org](mailto:unhabitat.roas.clarifications@un.org) directly for instructions.**



## RFI INSTRUCTIONS

### 1) Registering as a Vendor with the United Nations

Vendors interested in fulfilling the requirement described above must be registered at the UN Global Marketplace ([www.ungm.org](http://www.ungm.org)) with the UN Secretariat in order to be eligible to participate in any solicitation. Information on the registration process can be found at <https://www.un.org/Depts/ptd/vendors>.

#### **Prerequisites for Eligibility**

In order to be eligible for UN registration, you must declare that:

- A. Your company (as well as any parent, subsidiary or affiliate companies) is not listed in, or associated with a company or individual listed in:
  - I. the Compendium of United Nations Security Council Sanctions Lists (<https://www.un.org/securitycouncil/content/un-sc-consolidated-list>), or
  - II. the IIC Oil for Food List website or, if listed on either, this has been disclosed to the United Nations Procurement Division in writing.
- B. Your company (as well as any parent, subsidiary or affiliate companies) is not currently removed or suspended by the United Nations or any other UN organisation (including the World Bank);
- C. Your company (as well as any parent, subsidiary or affiliate companies) is not under formal investigation, nor have been sanctioned within the preceding three (3) years, by any national authority of a United Nations Member State for engaging or having engaged in proscribed practices, including but not limited to: corruption, fraud, coercion, collusion, obstruction, or any other unethical practice;
- D. Your company has not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against your company that could impair your company's operations in the foreseeable future;
- E. Your company does not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with the Vendor in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15).
- F. Your company undertakes not to engage in proscribed practices (including but not limited to: corruption, fraud, coercion, collusion, obstruction, or any other unethical practice), with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN.

**For Registered Vendors:** Vendors already registered at the UN Global Marketplace with the UN Secretariat must ensure that the information and documentation (e.g. financial statements, address, contact name, etc.) provided in connection with their registration are up to date in UNGM. Please verify and ensure that your company is registered under its full legal name.

**For Vendors Interested in Registration:** Vendors not yet registered should apply for registration on the United Nations Global Marketplace (<http://www.ungm.org>); information on the registration process can be found at <https://www.un.org/Depts/ptd/vendors>. Vendors must complete the registration process prior to the closing date of the RFI. Vendors who have not completed the UNGM registration process with the UN Secretariat before the closing date of the RFI are not considered eligible to participate in the potential solicitation process related to the RFI. We strongly recommend all companies to register at least at Level 1 under the UN Secretariat prior to participating in any solicitations.

**IMPORTANT NOTICE:** Any false, incomplete or defective vendor registration may result in the rejection of the application or cancellation of an already existing registration.

### 2) RFI Process

Vendors interested in participating in the potential solicitation process should forward their information (as requested in the RFI) to UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME (UNHABITAT) by the closing date set forth in this RFI. *Due to the high volume of communications UNHABITAT is not in a position to issue confirmation of receipt of RFIs.*

Please note that no further details of the potential solicitation can be made available to the vendors prior to issuance of the solicitation documents.

This RFI is issued subject to the conditions contained in the RFI introductory page available at <https://www.un.org/Depts/ptd/rfi>.



