5 November 2020

Supplier Conference

Request for Proposal: No. 2020/RFP/021

IMPROVED EMERGENCY LATRINE SLABS

Supply Management Service, Procurement Section

UNHCR
The UN Refugee Agency

Agenda

- Welcome incl. introductions	(20 min.)
- Tendering process	(10 min.)
- Product: background and requirements	(40 min.)
- Wrap up	(5 min.)
- Questions	(20 min.)

Procurement Principles

In line with the UN Financial Regulations and Rules, UNHCR's procurement system is based on the following principles:

- Fairness;
- Integrity and Transparency:
- Effective International Competition;
- Best Value For Money;
- The Interest of the United Nations.

Procurement conditions

Building on the philosophy and achievements of the **UN Global Compact**, UNHCR envisions a world in which the private sector plays a constructive role in finding durable solutions for people forced to flee their homes.

To achieve this, we proactively engage with corporations and foundations eager to help drive change and find innovative solutions to refugee issues. UNHCR also endeavours to undertake environmentally responsible sourcing of goods and services.

Tendering process

https://www.unglobalcompact.org/

UNHCR
The UN Refugee Agency

Tendering process

20 Oct.

RFP launched

Supplier conference

5 Nov.

28 Nov.

Deadline to submit Questions

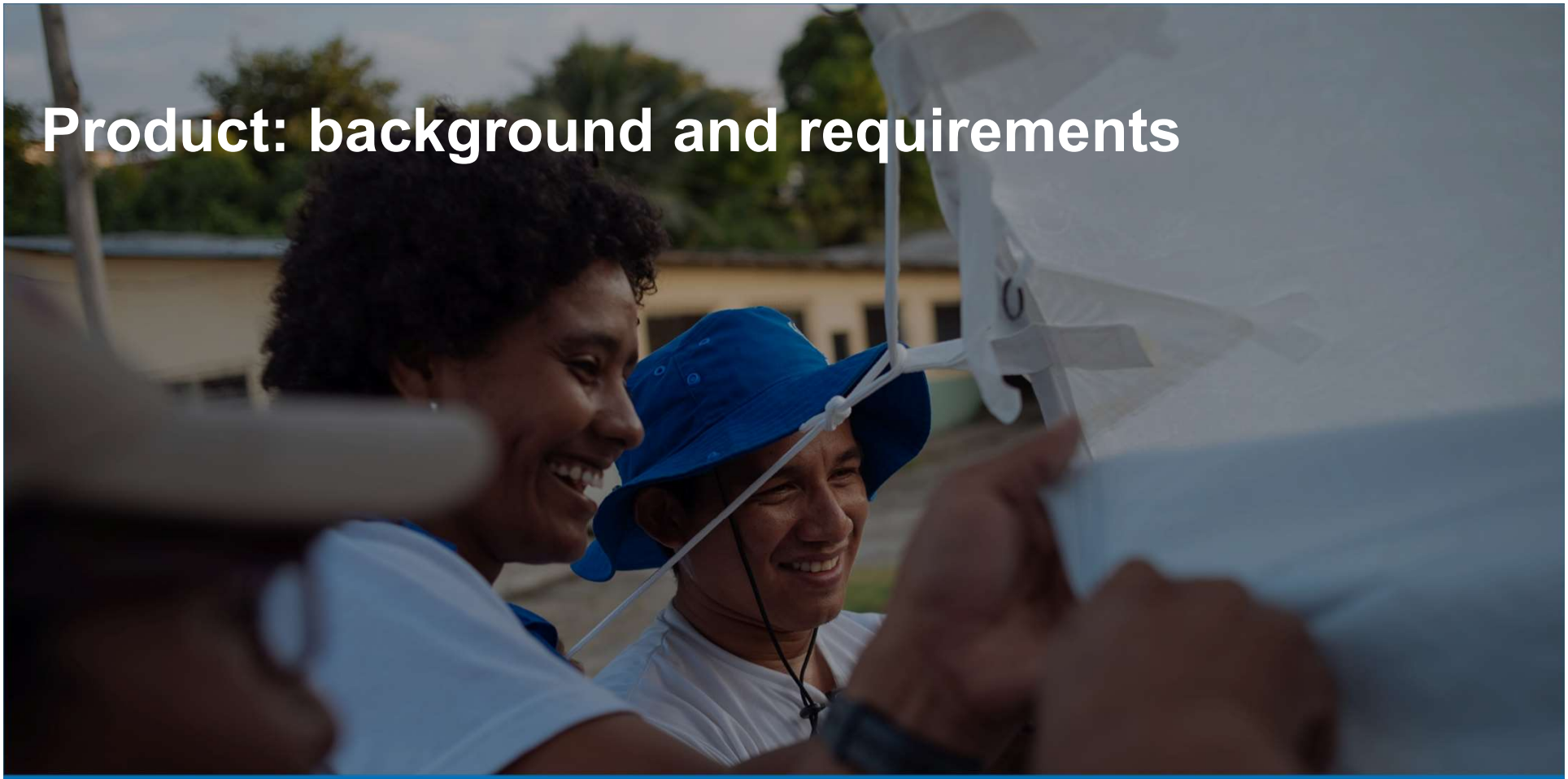
Deadline submission of Proposal

22 Feb.

8 Mar.

Deadline submission of Samples

Product: background and requirements



WASH

UNHCR
The UN Refugee Agency

Background

UNHCR
The UN Refugee Agency

The problem (1)

- Many refugee responses require the rapid construction of emergency pit latrines.
- In many areas, plastic latrine slabs are used for that purpose.

Photo credit: Murray Burt

UNHCR
The UN Refugee Agency

The problem (2)

- Most come with a hole cover, that has to be put in place manually.
- Hole covers are often lost or not used properly or left behind in the warehouse.

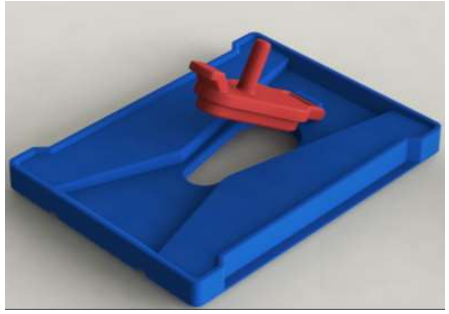
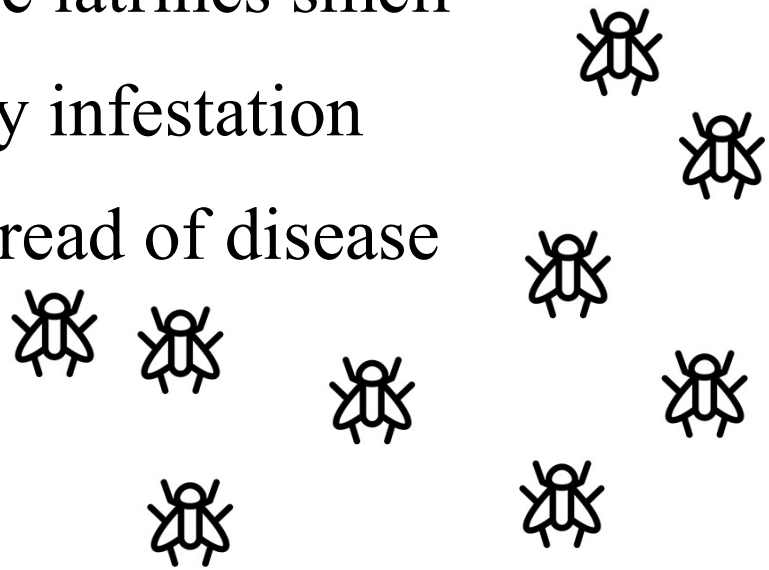


Photo credit: Rob Fielding

UNHCR
The UN Refugee Agency

The problem (3) — Consequences

- The latrines smell
- Fly infestation
- Spread of disease



Fly image: Flaticon.com

Photo credit: Murray Burt

Market research

Issues reported about some currently available slabs

- End-user feedback not considered in product development
- "Slabs are bouncy"
- "Slabs are slippery"
- "Slabs deform under heat"
- "Slabs do not resist UV radiation"
- "Slabs do not provide an adequate choice of colours"
- Negative environmental impacts

RFP — Requirements

UNHCR
The UN Refugee Agency

A **light-weight latrine slab** that ensures the **safe separation of human feces** from the environment by including a **self-closing** mechanism for the **drop hole** after latrine use.

"Self-closing" is defined as: ''**Without** the need for **the user to take action** to close the cover and without powered inputs''.

"Self-closing" does **not** include traditional **pour-flush mechanisms.**

UNHCR
The UN Refugee Agency

Mandatory requirements

Pass/Fail

- Self-closing mechanism
- Includes pan or keyhole shaped drop hole
- All components are expected to have a minimum service life of 5 years under field conditions and a guaranteed shelf life period of 5 years
- Minimum 25 slabs fit to a Euro Pallet (1200 x 800 mm)
- If applicable, keyhole size within standard range 340-410 mm; widest part of keyhole 160-220mm; largest circular area opening ≤0.04m2 (equal to circular area of 220 mm diameter).
- Standard slab size: length x width 1200 x 800 mm with ±1.25% tolerated variance limits
- Slab and self-closing mechanism incl. fixings to weigh less than 20 kg

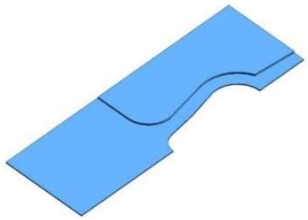
Overview of specifications and requirements

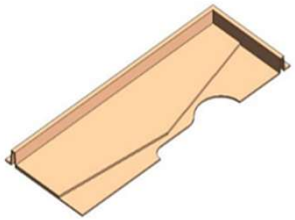
- Basic requirements
- Assembly requirements
- Mechanical & physical specifications
- Appearance and surface texture
- Environmental criteria
- Special needs add-ons
- Manufacturing and supply chain information

UNHCR
The UN Refugee Agency

Examples of basic requirements (1)

- Slab to incorporate raised **footrests** suitable **for all ages and body sizes** to elevate the user's feet from the main slab surface.





- Slabs/pans/seal mechanisms (including fixings) **are all packed on the same pallet** according to the number of slabs included.

UNHCR
The UN Refugee Agency

Example of basic requirements (2)

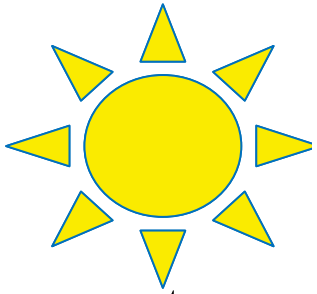
- Information on air-freight, road and sea-freight options has been provided including number of units per pallet, pallets per container, weight, dimensions and space/volume usage ratio. **Include indication of the height of packed EUR pallet when containing 25 slabs**, including self-closing mechanism*.
- (*The latter is for UNHCR to assess space use when stacked and does not relate to the packaging options actually provided by the bidders).

Examples of assembly requirements

- Assembly requirements: Slab and accessory combinations should include all what is required so that **no additional materials/connectors need** to be sourced or added prior to assembly and install.
- Tools required for assembly should be listed and described and no specialised equipment should be required.
- Assembly of the slab should be as straightforward and simple as possible. **Preference** will be given to solutions that require **no** – or the least amount of – **tools**.
- **Preference** will also be given to solutions with **no** – or the least amount of – **connectors and the fewest distinct components**.
- No (or absolute minimal) additional materials should be required for assembly.

UNHCR
The UN Refugee Agency

Examples of physical & mechanical specifications



- All plastic components show **UV stability** and resistance. **If available**, reports of accelerated **one-year UV tests** show a positive result.
- All materials have a **working temperature range from -15°C to +70°C and are resistant to cleaning products**. Bidder to provide, if available, laboratory reports from the main components' materials from the same sample' s batch on the following tests: Temperature of deflection ASTM D648, ISO 75 or equivalent; thermal stability ASTM D3045 and Chemical resistant test ASTM D543. (UNHCR reserves the rights to test the material and product).
- A **small slab** of **size 800** ± 10mm **x 600** ±8mm with a self-closing mechanism is optionally available.

UNHCR
The UN Refugee Agency

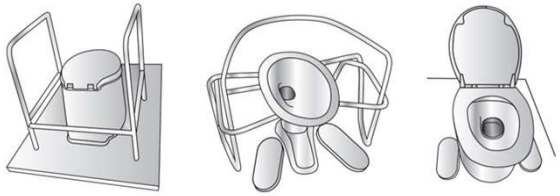
Examples of appearance and surface texture specifications

- Product is available in a **variety of colours** to suit various local contexts/cultures. Products with **fine bathroom appearance finishes** as marble, ceramics or wood will be appreciated. Proposals that include products only offering in a green colour will not be accepted.
- The slab and pan **surfaces** are **easy to clean**; corners and raised textures where waste can accumulate are minimal.

Examples of environmental criteria

- Bidder to be **certified under ISO 14001** or can show evidence of the certification process underway.
- The proposed product contains **bioplastic**. Bidder to indicate the percentage of bioplastic, the type of bioplastic and whether it is from a bio source, or biodegradable or both.
- The proposed product contains **other ethical and sustainable alternatives to plastic**. Bidder to indicate the percentage, the material with any supporting evidence (e.g. a label according to ISO 14024:2018, Nordic Swan Ecolabel, European Ecolabel, a national ecolabel, Max Havelaar, WFTO, etc.)
- Negative environmental impact of the slab and self-closing mechanism at **end of life**/at camp closure is minimized. This can be achieved, for example, by a **return & disposal system**, compostability of the slab, upcycling possibilities, or other proposals that will avoid environmental contamination and ensure as easy process as possible.

Special need add-ons



- Systems that have the ability to **add on assistive devices for people with special needs**, as well as components for upgrading the system functionality, are preferable. This will also foster the reuse of the slab potentially progressing up the sanitation ladder for a longer lifespan.
  - **Handrails**
  - **Seat/stool**
- Special need add-ons are **directly attachable to the slab** and do **not rely on external parts** like walls.

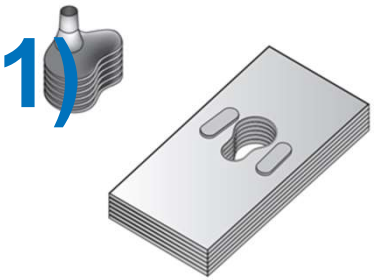
UNHCR
The UN Refugee Agency

Examples of manufacturer and supply chain information

- The proposed product is expected to be **available from more than one geographic area** in order to mitigate political and natural risks to supply. (Distinct geographic areas will be considered to be at least 1500km apart from each other to mitigate natural disaster risks and to be in different countries to mitigate political risks).
- The bidder's **supply chain is conducive to local procurement**. Examples of how this can be achieved include: Retail shops in developing countries, global licensing agreements, suitability for 3D-printing, creative commons licenses, a combination thereof or other arrangements.

UNHCR
The UN Refugee Agency

Visual inspection & lab testing (1)

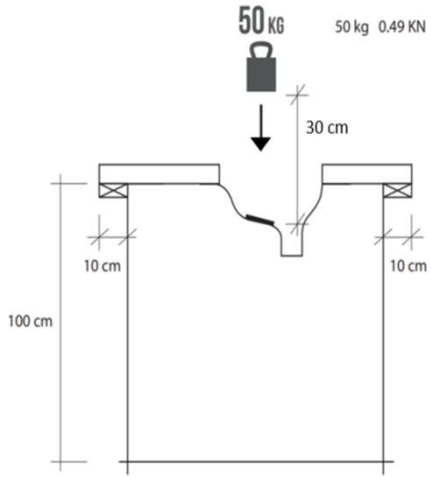


- Slabs, pans, self-closing mechanisms and fixings are **stackable**. Multiple slabs can be safely stacked on top of each other for ease of transportation, without damaging slabs above/below. MANDATORY
- **Keyhole dimensions** (only applicable if pan supplied separately or the proposed solution does not involve a pan), maximum length 340-410 mm; widest part of keyhole 160-220mm; largest circular area ≤0.04m2, (equal to circular area of 220 mm diameter). MANDATORY IF APPLICABLE

UNHCR
The UN Refugee Agency

Visual inspection & lab testing (2)

- The **pan**, integrated or connected to slab, **is capable of withstanding 50kg/0.49kN load** when applied at the centre of the pan, maintaining stability of connection between slab and pan/strength of pan (only applicable if proposed solution involves a pan) MANDATORY IF APPLICABLE
- **Self-closing mechanism**, including the slab when mounted on it, **keeps functionality** after being exposed to -15°Celsius for 12 hours. MANDATORY

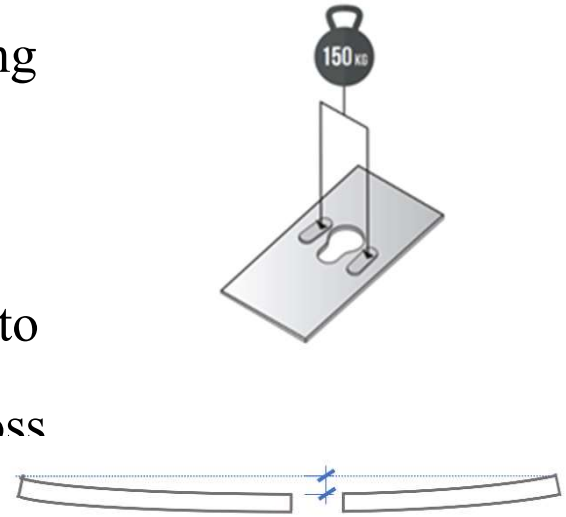


Visual inspection & lab testing (3)

- The slab size is of **length x width 1200 x 800 mm** with ±1.25% tolerated variance limits. MANDATORY
- **Weight** of slab including self-closing system and fixings (excluding seat/handrail accessories) is **not above 20 kg**.
- **Discharge pipe diameter for pan to be ideally 110mm**, within the stablished limits of ± 40mm (whether integrated or supplied separately to slab; only applicable if proposed solution involves a pan)
- **Fatigue test**: Self-closing mechanism maintains functionality for a minimum of 10,000 uses. MANDATORY

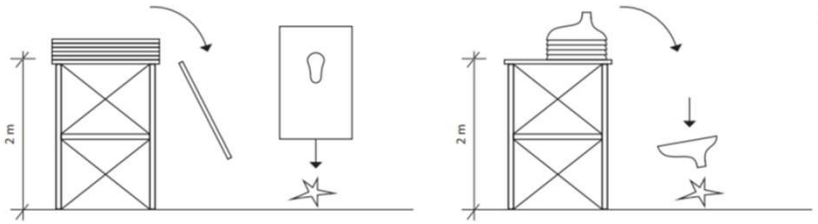
Visual inspection & lab testing (4)

- Slab has **limited slip potential** when evaluated following (wet and dry) pendulum slip test
- Slab at keyhole level shows **minimum deflection** (**before and after** being subjected to **extreme temperature variations**, up to 70°C for 36 hours and returned again to ambient temperature) when subjected to a loading of 150kg/1.47kN at footrests/centre of slab, while slab is supported on 100mm wide strips across each end only — allowing a 1m clear span (i.e. not secured via the four holes on the edges). Calculate the difference between deflection values among the two deflection tests (before and after). MANDATORY



Visual inspection & lab testing (5)

- When the slab is placed horizontally, **liquids** spilled all over the sides of the squatting area of the slab **flow towards the keyhole/pan** without ponding or otherwise being restricted.
- **Slab** (and a pan if supplied separately) can **survive a drop** from a height **of 2 meters** onto a concrete floor without damage



UNHCR
The UN Refugee Agency

Visual inspection & lab testing — Handrails

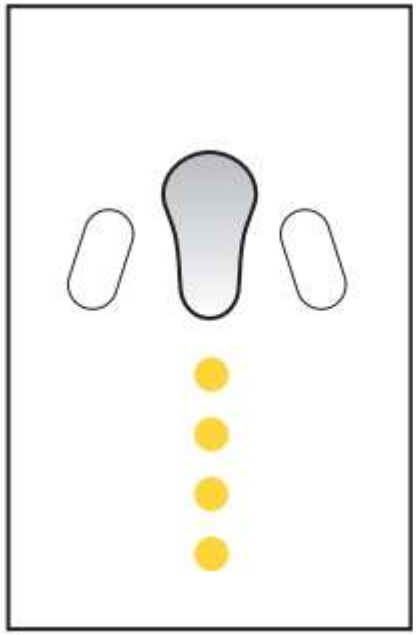
- Handrails to be held rigidly in position on slab, do not break or deform, do not easily move or topple over, and do not damage the slab when a person (80-90kg) leans on one side of the handrails.
- Handrails are between 800mm to 1000mm in height.

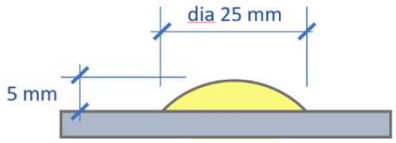
Visual inspection & lab testing — Stool/seats

- Seat/stool to be held rigidly in position on slab, do not break or deform, do not get loose, easily move or topple over, do not damage the slab and does not affect functionality of the self-closing mechanism, when a person (80-90kg) sits on the stool/seat.
- Seat/stool is available in two sizes, one for children and one for adults.

Visual inspection & lab testing — Tactile features for visually impaired people

- Raised round bumps on the slab that provide a pathway along the centre line leading from the slab edge towards the drop hole.
- The bumps should be 23-26mm in diameter, raised to a height of 3-7 mm, and 41-61 mm apart from each other.
- Tactile features should have a colour contrast of at least 30 points difference in the light reflectance value (LRV) between the features and the main slab.
- The bumps are without sharp angles so as to avoid cleaning issues.

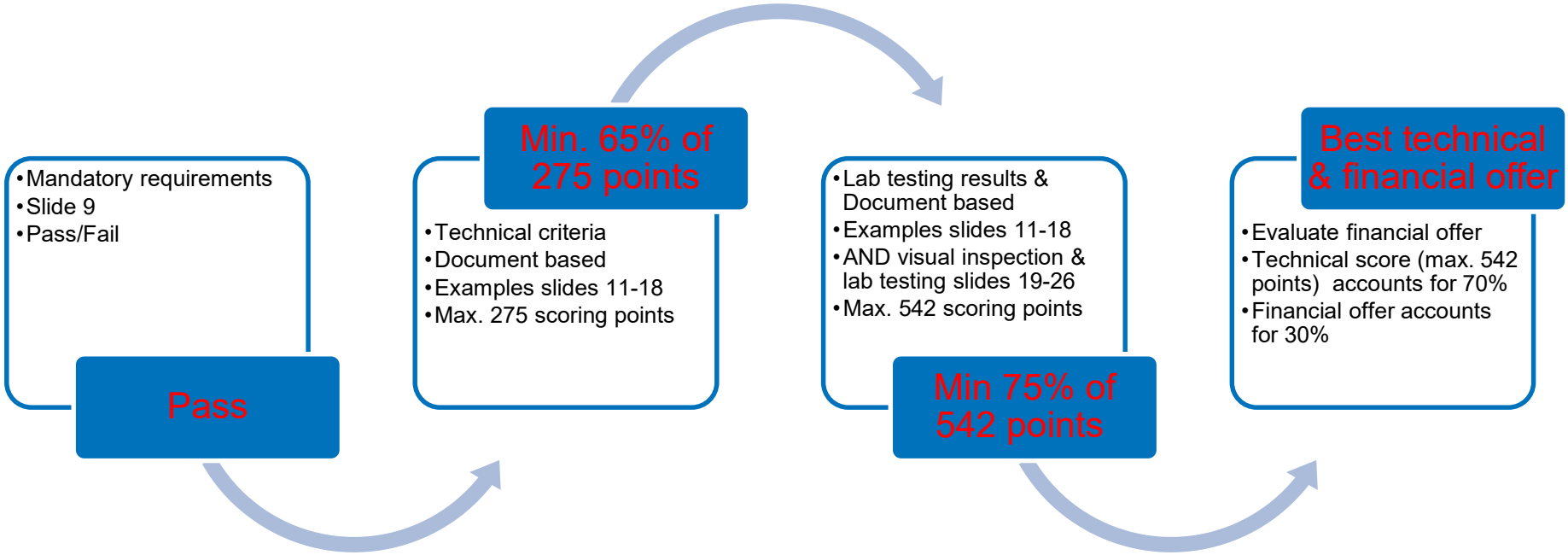




Evaluation process

UNHCR
The UN Refugee Agency

Overview evaluation steps



UNHCR
The UN Refugee Agency

Practical Tips

- Read the full set of documents;
- Study bid conditions and requirements carefully
- Ask for clarifications if uncertain. Do not make assumption.
- Make sure that your offer meets all bidding provisions
- Make sure that your offer meets minimum technical requirements and respond fully to the Performance Specifications
- Submit the offer in full compliance with the procedure required and by the applicable deadlines

Questions?

All Q&As will be published on:
https://www.unhcr.org/requests-proposals.html
www.UNGM.org

More questions can be sent until 28 Nov. to: OMARYT@unhcr.org and HQQuery@unhcr.org

UNHCR
The UN Refugee Agency

Thank you for your interest
and

success with the
development of the
proposal

UNHCR
The UN Refugee Agency