Independent Technical Expert – Internet of Things for Smart Contraceptive Vending Machines

Frontier Technology Livestreaming

Eight (8) days remote input
Available from Monday 5th March, 2018
No travel envisioned, although this may be reviewed on an as-needed basis
Deadline for applications:
23.59GMT, 26th February 2018

Want to contribute to the UK Civil Service's most innovative programme?

Frontier Technology Livestreaming (FTL) is an award winning three-year programme designed to help DFID apply frontier technologies to the biggest challenges in development. To find out more about the programme and its goals, visit our Medium publication. We’re looking for independent technical experts to support eight new pilots applying a range of different frontier technologies to development.

The Pilot

As part of our work we’re exploring the use of smart vending machines to help provide contraception. An inconsistent supply, as well as distant clinics that lack anonymity all contribute to the reasons why many women in developing countries do not use contraception. Traditional methods of supplying contraception also face logistical challenges such as stock-outs and reaching the last mile.

To overcome these issues, FTL plans to pilot the use of smart contraceptive vending machines, incorporating both the Internet of Things to overcome logistical issues, and access cards, to ensure the right people have access to the stock.
The Role:

To help with this work, we need an IoT expert to help contribute to the scoping and design of this pilot, designing the optimum tech stack for the vending machine. This will complement our wide-ranging knowledge on women’s health and contraception.

The Scope

Reporting to the Team Leader and Programme Manager of FTL, and in collaboration with the DFID Smart Contraceptive Vending Machines pilot owner, the primary responsibilities of the expert would be to:

- Prepare an outline of the key specifications for the Vending Machine, including the optimal tech stack to enable the pilot to reach its full potential. This will take into consideration the need for:
  - IoT capabilities
  - The integration of access cards into the use of the system
  - Developing country contextualisation
  - Connectivity and power constraints of harsh environments
- Complete a market supplier study using your expert knowledge to advise the FTL team on downstream implementation and procurement processes. This will include reviewing available technologies in local markets once the pilot location is confirmed.
- Assist FTL in drafting a Terms of Reference for the downstream implementation of the Smart Contraceptive Vending Machines pilot;
- Assist in evaluating proposal submissions for the downstream implementation of the Smart Contraceptive Vending Machines pilot.

Key qualifications

- Expertise in the Internet of Things. An understanding of or experience in connecting and powering IoT devices in harsh environments would be of great value.
- Prior knowledge of vending machines would be of significant advantage
- Prior knowledge of access cards would be a significant advantage
- Prior experience of working in developing country contexts would be an advantage

It should be noted that, because FTL expects this role to serve as an independent and objective expert who will provide input into the selection of a supplier, the selected candidate would be prohibited from directly supporting the supplier in the implementation of the pilot.

The selected candidate would also have to disclose any prior contacts or engagements with potential downstream suppliers. However, there may be scope for the candidate to provide additional input as an independent expert during pilot implementation.

Application Instructions

Please submit the following materials to FTLenquiries@imcworldwide.com (with “Independent Technical Expert – Smart Contraceptive Vending Machines in the subject line):

- A current CV tailored to meet the requirements of the position;
- Two references;
- An indication of proposed daily fee rate in Pound Sterling (GBP);
- A list of the daily fee rates for your prior two assignments;
- An indication of how you became aware of the position

Shortlisted candidates will be invited to interview. The above materials are required for due diligence purposes relating to DFID supplier codes of conduct. Additional materials

Deadline for submissions

23.59 GMT, 26th February 2018
## Evaluation criteria

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Maximum Total points</th>
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<tbody>
<tr>
<td>Expertise in the Internet of Things</td>
<td>50</td>
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<tr>
<td>Prior knowledge of access cards</td>
<td>20</td>
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<tr>
<td>Prior knowledge of vending machine hardware</td>
<td>15</td>
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<tr>
<td>Understanding/ Experience of harsh environments and the impacts on</td>
<td>10</td>
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<tr>
<td>connectivity and powering for IoT devices</td>
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<tr>
<td>Prior experience of working in developing country contexts</td>
<td>5</td>
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