

---

# Telecommunication and Hardware Model for TeleRehabilitation

---

## |Terms of Reference|

### 1. Introduction and Background Information

#### 1.1. Humanity and Inclusion

Humanity and Inclusion (HI) – previously known as Handicap International - is an independent and impartial aid organisation working in situations of poverty and exclusion, conflict and disaster. We work alongside people with disabilities and vulnerable populations, taking action and bearing witness in order to respond to their essential needs, improve their living conditions and promote respect for their dignity and fundamental rights. HI is working in more than 60 countries over the World.

#### 1.2. Physical and functional rehabilitation

For 40 years, HI has been providing rehabilitation services to help people with disabilities, injuries, trauma or other health conditions reach and maintain a maximum level of functioning. Our rehabilitation experts implement and promote an inclusive and comprehensive approach, ensuring the entire rehabilitation process is adapted to each person's needs and specific context. Our activities take into account the personal and contextual resources and barriers to accessing and benefiting from rehabilitation and related services, paying specific attention to the role of caregivers and communities in the rehabilitation process.

Since 2016, HI has been researching and testing the use of emerging technologies in ortho-prosthetic fitting, remote service provision and online training, particularly for low- and middle income countries and complex situations. Based on our findings, we are working on improving access to rehabilitation services through **an innovative service delivery model** that combines the existing delivery setup in a given context with the use of digital technologies and 3D printing. In underserved areas, the provision of services can be supported by HI remotely and implemented by local partners.

#### 1.3. TeleRehabilitation and TeleAssistiveTechnology

HI has defined TeleRehabilitation or TeleAssistiveTechnology as the use of information and communication technologies (ICT) to provide rehabilitation or assistive technologies services to people remotely in their home or other environments. Until date, HI has specialized in use of Information and Communication Technologies (ICT) and additive technologies (3D printing) to provide rehabilitation services and assistive technologies in complex settings.

#### 1.4. Telecommunication and Hardware

HI has so far piloted local deployment of TeleRehabilitation and TeleAssistiveTechnology in different countries. Our approach focused on local capacity building and service provision from a software perspective. HI acknowledges the importance of adapting interventions to local telecommunication and hardware contexts in order to have relevant approaches and be able to best answer to the needs.

## 2. Assignment

### 2.1. Assignment Objectives:

The consultant(s) will be in charge of developing a comprehensive and practical telecommunication and hardware intervention model for deployment of telerehabilitation and teleassistivetechonology in challenging environments (conflicts, low and middle income countries), including a set of logistical packages, technical specifications of identified products, context decision making tool and educational glossary.

### 2.2. Modalities

The consultant(s) will:

- Design a logistical (telecommunication and hardware) intervention model allowing for effective deployment of 3D printing and telerehabilitation projects in different contexts.
- Identify telecommunication and hardware packages for model implementation in each context, taking into account the complexity and variability of humanitarian contexts (absence, intermittence, quality and coverage of the network, power supply, ...).
- Design a quick evaluation and decision-making tool allowing the field teams to identify the products and solutions to be implemented based on accessible and regularly updated information and indicators.
- Define the technical specifications of the products and solutions selected for the qualitative deployment of our approaches and draw up a catalogue of existing products and solutions based on locally available resources.
- Define an "educational" glossary of the selected products and solutions.

### 2.3. Deliverables

- Logistical intervention (telecommunication and hardware) model, including possibilities of mutualisation between actors and alliances.
- Sets of telecommunication and hardware packages allowing the deployment of 3D printing and telerehabilitation, including a catalogue of products with technical specifications.
- Quick technological feasibility evaluation and decision-making tool to implement logistical intervention model.
- Educational glossary of selected products and solutions.

### 2.4. Consultant and HI's Responsibilities

The consultant (group):

- Identify and proposes methodologies to provide aforementioned deliverables
- Provides aforementioned deliverables and presents them to HI technical team

HI:

- Validates deliverables
- Provides necessary documents or information

### 2.5. Additional information

- Expected duration: flexible duration with deliverables to be submitted no later than 1<sup>st</sup> November 2022
- Expected budget: flexible budget based on methodology and quality of proposal.
- Details of consultancy to be discussed and refined with consultant(s)
- Short field mission expected in HI project (to be defined)

## APPLICATION MODALITIES

Proposals should be submitted to Martin JACOBS [m.jacobs@hi.org](mailto:m.jacobs@hi.org) before 15<sup>th</sup> July 2022. Email object: "Consultancy #02062022 [Name]"

Proposals should include:

- Methodology and justification for field mission
- Budget, including daily rate
- Timeline, including availability for field mission
- Consultant(s) CV(s)