Offline AI Necklace Project for Child Safety in Ethiopia – Expression of Interest

Dear Sir or Madam,

If this message has reached the wrong contact point, I would be sincerely grateful if you could kindly redirect it to the appropriate officer or team within your organization.

I am writing to express interest in potential collaboration for a humanitarian technology initiative aimed at supporting children with developmental and physical disabilities in fragile and resource-constrained environments.

This is a non-commercial, rights-based innovation project centered around an AI-powered, fully offline wearable device—designed to enhance the safety and daily autonomy of children with disabilities, particularly in refugee settlements and low-connectivity regions. The device functions entirely without internet access, collects no personal data, and complies with the highest standards of ethical AI and child data protection, including GDPR, COPPA, and Council of Europe guidelines.

The device delivers real-time verbal prompts to assist with routines and alerts caregivers through an offline mobile interface in cases of distress or irregular behavior. Its modular, locally adaptable design enables decentralized assembly and repair, creating opportunities for community caregivers, displaced technicians, and underserved youth. Built using low-power microcontrollers and TinyML principles, the technology is optimized for affordability, offline usability, and resilience in humanitarian settings.

The initial pilot is planned for Ethiopia, where the need for disability-inclusive innovation is especially acute due to the intersection of displacement, conflict, and limited service access. However, the device and delivery model are designed for scalability across diverse low-resource contexts, including other refugee-hosting and crisis-affected regions worldwide.

The prototype can be assembled and deployed for approximately USD 1,000, with a community-based model that enables local assembly and maintenance within refugee camps or informal settlements. This model offers not only direct benefits for children with disabilities, but also sustainable income opportunities for vulnerable populations engaged in the local production and support chain.

I would be pleased to share both a 2-page executive summary and a full technical dossier (265 pages, PDF/A format) to support your review. Should there be interest or alignment with your priorities, I would be honored to provide further documentation or participate in a virtual consultation.

This initiative has also been shared with development cooperation sections at other diplomatic missions, including those of Sweden, Canada, and the Netherlands, in the spirit of exploring broader multilateral alignment.

Thank you very much for considering this expression of interest. I look forward to the opportunity to contribute to inclusive innovation for child protection in humanitarian settings.

Warm regards,  
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