

Community-Based Early Warning System Hardware and Technical Services

Background

Basic information about PIN

We are a non-governmental, non-profit organization founded on the ideals of humanism, freedom, equality and solidarity. We consider human dignity and freedom to be fundamental values. We believe that people anywhere in the world should have the right to make decisions about their lives and to share the rights expressed in the Universal Declaration of Human Rights.

People in Need organization was established in 1992 by a group of Czech war correspondents who were no longer satisfied with merely relaying information about ongoing conflicts and began sending out aid. It gradually became established as a professional humanitarian organization striving to provide aid in troubled regions and support adherence to human rights around the world.

Throughout the 30 years of its existence, People in Need has become one of the biggest non-profit organizations in Central Europe. In addition to humanitarian aid and human rights, it now also targets education and helps people living in social exclusion.

We are part of Alliance2015, a strategic network of seven European non-governmental organizations engaged in humanitarian aid and development projects. This collaboration increases effectiveness, both in working in the target countries and in campaigns aimed at influencing the attitudes of politicians and the general public in Europe.

Early Warning Systems (EWS)

People in Need (PIN) has been implementing community-based Early Warning Systems (EWS) since 2013 and has successfully deployed and supported EWS solutions across multiple countries, including Cambodia, the Philippines, Laos and Nepal. Through these initiatives, PIN has gained extensive experience in the development, operation, maintenance, and scaling of flood early warning systems that support vulnerable communities and local authorities in disaster preparedness and response.

The first EWS system (EWS1294) was introduced in Cambodia in collaboration with the National Committee for Disaster Management (NCDM), combining

innovative Interactive Voice Response (IVR) technology, SMS Broadcasting and community-centered flood monitoring and warning dissemination. The system was designed to ensure accessibility for vulnerable populations while providing local authorities with real-time hydrological information through a network of river level monitoring stations. Over the years, PIN has worked closely with national and sub-national disaster management authorities, strengthening institutional capacities and promoting evidence-based decision-making for disaster risk reduction.

Building on this experience and the successful deployment of EWS solutions in several countries, PIN is seeking to identify suitable suppliers and technology partners who can support the further expansion, standardization, and sustainability of community-based water level monitoring systems. Specifically, PIN is looking for suppliers capable of providing robust, low-cost, and community-managed water level monitoring solutions that are easy to maintain, repair, and operate in remote environments.

PIN is particularly interested in solutions that:

- Support community-based monitoring and early warning approaches;
- Are durable and suitable for flood-prone environments;
- Require minimal maintenance and can be repaired using locally available materials and skills;
- Offer opportunities for local production and adaptation, including through 3D printing and decentralized manufacturing;
- Can be integrated with existing early warning and information dissemination platforms;
- Are scalable across multiple countries and contexts.

PIN is seeking to identify suppliers capable of supporting water level monitoring solutions across its countries of operation, including **Armenia, Cambodia, Ethiopia, Laos, Myanmar, Nepal, the Philippines, and Zambia**. These countries represent potential implementation locations under the framework agreement and do not necessarily require supplier presence in all locations.

The objective is to establish partnerships with suppliers that can provide sustainable, community-centered monitoring solutions, supporting PIN's ongoing efforts to strengthen disaster preparedness and climate resilience among vulnerable communities while ensuring long-term operational sustainability through local ownership and maintenance capabilities.

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Objective and Requested Services & Goods

The purpose of this framework agreement is to identify and establish partnerships with suppliers capable of designing, developing, producing, and maintaining community-based water level monitoring sensors for integration with People in Need's (PIN) existing Early Warning System (EWS) platforms.

PIN is seeking scalable and cost-effective radar-based water level monitoring solutions that can be deployed primarily on community bridges and similar infrastructure. The sensors should have **a measurement range of approximately 10 to 25 meters, be solar-powered, use internet connectivity for real-time data transmission to PIN's central EWS dashboard, and be simple to operate, maintain, and repair in remote environments.**

The solutions will support EWS implementation in PIN's target countries: **Armenia, Cambodia, Ethiopia, Laos, Myanmar, Nepal, the Philippines, and Zambia** and any additional countries where PIN may expand EWS activities.

Suppliers should be able to provide:

- Development, production, supply, and maintenance of radar-based water level monitoring sensors;
- Software, firmware, and integration support to ensure compatibility with PIN's existing EWS platforms and dashboards;
- Technical support to facilitate deployment, scaling, and long-term operation across multiple countries;
- Development of 3D models, technical drawings, and production files to support local manufacturing, assembly, maintenance, and repair of EWS hardware components, including the use of 3D printing technologies where appropriate.

The overall objective is to identify reliable technology partners capable of delivering sustainable, scalable, and locally maintainable water level monitoring solutions that strengthen community-based flood early warning systems.

Requested Goods

- (i) Community-Based Water Level Monitoring Device - Solar-powered radar water level sensor with internet connectivity suitable for installation on bridges and similar structures, with a measurement range of approximately 10 to 25 meters, and designed for low-cost deployment, maintenance, and scaling.
- (ii) Community Warning Dissemination Device - A public warning speaker compatible capable of receiving and broadcasting warning messages and designed for low-cost, scalable deployment and local maintenance.

For the purpose of this framework agreement, PIN expects proposed unit prices for water level monitoring devices and warning dissemination devices not to exceed **USD 1,900 per unit**, including all applicable taxes and associated costs. Preference may be given to solutions that achieve lower total lifecycle costs while meeting the technical requirements.

Outputs / Deliverables

The deliverables will be defined within each purchase order that is sent by PIN to the company during the duration of the contract; when requesting the specific services / amount of goods desired at that time. Each of the deliverables will be achievable through the services and goods outlined in the framework agreement.

Transportation and delivery of sensors to the countries of implementation should be ensured, with the related costs to be agreed separately, where applicable.

Contract Cost, Duration

The contract modality is a framework agreement with fixed price.

This framework agreement does not guarantee a minimum or maximum contract value. Services and goods will be procured on an as-needed basis through individual purchase orders issued during the validity period of the agreement.

The value of each purchase order will be determined based on the supplier's contracted rates and the specific scope of work or goods requested. Prices should include all applicable costs related to design, production, delivery, support, and maintenance, as specified in each purchase order.

Any applicable taxes, duties, or withholding requirements shall be applied in accordance with the tax regulations of the country where the services are delivered or the goods are supplied.

The framework agreement duration will be 4 years.

Target location

Suppliers may be based in any country, provided they can effectively support PIN's Early Warning System operations across its countries of implementation. Suppliers must demonstrate their ability to supply equipment, spare parts, and technical support services to PIN offices and project sites in Cambodia, the Philippines, Laos, Nepal, Armenia, Myanmar, Ethiopia, Zambia, and any additional countries where PIN may expand EWS activities.

Particular consideration will be given to suppliers that can offer cost-effective logistics, transportation, and after-sales support, as well as localized production,

assembly, or maintenance solutions to reduce shipping costs, lead times, and dependency on international supply chains.

The selected supplier(s) will contribute to the long-term sustainability, interoperability, and scalability of PIN's community-based early warning systems across multiple geographic contexts.

Required Qualifications and Experience

- Demonstrated experience in the design, development, production, and integration of hardware and/or software solutions for environmental monitoring, early warning systems, IoT devices, or related technologies.
- Availability of qualified personnel with expertise in hardware development, software development, electronics, product design, 3D modelling, and/or local manufacturing processes.
- Proven track record of successfully delivering similar projects, particularly those involving water level monitoring, community-based early warning systems, remote sensing, telecommunications, or disaster risk management technologies.
- Experience developing solutions that are scalable, cost-effective, and suitable for deployment in remote and resource-constrained environments.
- Experience supporting local manufacturing, assembly, maintenance, or repair processes, including the use of 3D printing technologies, is considered an advantage.
- Strong communication skills and fluency in English.

Submission of Expressions of Interest

Interested suppliers are invited to submit the following documents:

- **Company registration certificate** or equivalent proof of legal registration;
- At least **two references** for similar projects delivered within the last five years, preferably related to water level monitoring, IoT solutions, environmental monitoring, early warning systems, or comparable technologies;
- Signed **Sworn Eligibility Statement**;
- **Contact details of the designated focal point** for further communication.

Submission Deadline

Interested suppliers should submit the required documentation by **25 September 2026, 4:00pm, CEST** to: secure.bid@peopleinneed.cz

Bids received after the closing date & time will not be considered.

Questions and Clarifications

Any **requests for clarification** relating to this Expression of Interest should be submitted to PIN by e-mail to the following e-mail address procurement@peopleinneed.net / tomas.durana@peopleinneed.net no later than **14 September 2026, 4:00, CEST**.

PIN may compile and share responses to questions with all interested suppliers to ensure equal access to information.

Following the submission deadline, PIN will invite interested suppliers to an introductory online meeting to discuss the initiative and share further information regarding the planned framework agreement and technical requirements.

Submission of an Expression of Interest does not constitute a commitment by either party. PIN reserves the right to establish framework agreements with one or multiple suppliers and is under no obligation to award a contract as a result of this Expression of Interest.