enterprise europe network

Partnering Opportunity

Profile status : Published

Research Development Request

An Italian SME is looking for partners for a H2020 proposal based on a rainfall monitoring system for hydrogeological emergencies

Summary

An Italian SME, developing solutions for environmental monitoring, is looking for partners interested in H2020 call "Transformative impact of disruptive technologies in public services ». The idea is to prepare a proposal focused on harmonization/demonstration of low-impact and sustainable disruptive technologies and natural-based solutions aimed at fostering the resilience of the smart city with respect to environmental hazards. Technology providers, research and public institutions are sought

Creation Date	14 February 2020
Last Update	15 February 2020
Expiration Date	04 March 2020
Reference	RDIT20200210001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/537c5ce5-0f8c-45b6-ba54-63b46f52f972

Details

Description

An Italian SME has developed an innovative environmental monitoring system estimating rainfall and flood hazard in real-time by means of the analysis of satellite television signals (received by commercial parabolic antennas), able to define high-resolution rainfall maps and to predict the effects of precipitation on the urban/natural drainage system.

While the attenuation of the satellite television signal received by a single antenna is a real-time measurement of the precipitation occurring in a portion of territory that underpins several kilometers of territory, a network of antennas constitutes an unprecedented source of information on the local evolution of the rainfall fields in the monitored basin. The high-resolution rainfall maps measured by a network of sensors is the ideal base for the development of an efficient hydrological risk alert system dedicated to small, medium and large-sized basins.
The network of developed sensors and the studied hydrological models can be very easily applied at the basin scale to monitor medium-large basins providing larger anticipation of the effects of precipitation. The developed Decision Support System (DSS) provides a continuous pluvial flood alert system that constitutes an advanced tool for the effective management of the hydro-geological risk. Basing on real-time GIS geo-referenced data, decision-makers will access dynamic risk maps to timely undertake risk management intervention.
The technology provides rainfall intensity and flood hazard maps that are updated every minute, computed with a 100m spatial resolution and instantaneously visualized in geo-referenced interfaces. It can be easily accessed by any electronic device (computer, smartphone, tablet).

The Italian company is interested in the H2020 Call - Transformative impact of disruptive technologies in public services (ID DT-TRANSFORMATIONS-02-2018-2019-2020) and they are interested in finding partners with which to prepare a project proposal focused on the harmonization and demonstration of low-impact and sustainable IoT disruptive technologies and natural based solutions (NBS) aimed at fostering the resilience of the smart city with respect to climate change driven environmental hazards.

To create an efficient partnership, several kinds of roles should be covered:
- municipalities and environmental agencies: both can represent the principal beneficiaries of the project results and can host the pilots;
- private technology providers and research institutions operating in the field of environmental resilience to climate issues;
- commercial partners: they can engage the developed system in pre-commercial procurement initiatives, public tenders or service provision calls in EU countries;
- local partners able to support technical activities necessary to provide and operate the system in EU countries.

Official deadline for the Call: March the 12th, 2020
Deadline for the EoI: March the 4th, 2020
Anticipated duration of the project: to be decided together with other interested partners

Advantages and innovations

Strong expertise in the development of environmental monitoring system and the results got from 10 different tested areas in Italy, covering more than 2700 sqm of territory, are the main offered strenghts to a possible consortium. The developed system is based on a proved technology to estimate and pinpoint rainfall in real-time with a fine spatial resolution that finds ideal application in small natural and urban basin. This allows the system to anticipate the flash flood emergency, predicting rainfall effects based on the observation of the actual meteo-hydrologic situation instead of simulated scenarios derived from weather forecasting. Thanks to the information provided, the decision makers are enabled to undertake wiser and faster choices and optimal, evidence-grounded decisions for managing emergencies.

Stage of development

Available for demonstration

IPR Status

Patents granted

Keywords

Technology

01003025	Internet of Things
01004007	GIS Geographical Information Systems
10001002	Assessment of Environmental Risk and Impact
10002004	Climate Change mitigation
10004011	Flood Management

Market

01005003	Microwave service facilities

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

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Open for EOI: Yes

Dissemination

Restrict dissemination to specific countries

Austria, Bulgaria, Czechia, France, Germany, Greece, Ireland, Poland, Romania, Slovakia, Spain, United Kingdom

Client

Type and Size of Organisation Behind the Profile

Industry SME <= 10

Year Established

2014

Turnover

<1M

Already Engaged in Trans-National Cooperation

No

Languages Spoken

English
French
Portuguese
Spanish

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The company is looking for partners from the public sector (e.g. municipalities, environmental agencies, etc.) as principal beneficiaries and as organisations which can host the pilots; then private technology providers and research institutions operating in the field of environmental resilience to climate issues.

As the selected H2020 call raises the need of the evaluation of the social and economic impact of disruptive technologies, the Italian SME is also looking for partners that can provide expertise in those subjects.

The SME is also looking for local partners that are capable to support technical activities necessary to provide and operate the system in the target EU countries.
The partners sought should operate in the following sectors:
- hydro-met / hydro-meteorology monitoring systems
- electronics / IoT systems
- disaster management

Type and Size of Partner Sought

SME 11-50,R&D Institution,251-500,SME 51-250,>500

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

ID DT-TRANSFORMATIONS-02-2018-2019-2020
Transformative impact of disruptive technologies in public services

Anticipated Project Budget

€ 3-4 Million

Coordinator required

Yes

Deadline for EOI

04 Mar 2020

Deadline of the Call

12 Mar 2020

Weblink to the call

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/dt-transformations-02-2018-2019-2020

Attachments