

## Research & Development Request

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# Eurostars2: A Korean company is looking for R&D partners to develop Internet of Things (IoT) and sensor networked smart product.

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### Summary

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*A Korean SME, a leading company in distribution industry of system integration and solution merged with information technology (IT) seeks partners for Eurostars2. The SME is concentrating on IoT and sensor networked smart products. R&D institutes, universities, or companies that have expertise in IoT are sought to improve the techniques applicable on IT industry. Therefore, the technology and products would be more innovative through this project under research cooperation agreement.*

<b>Creation Date</b>	02 March 2018
<b>Last Update</b>	26 March 2018
<b>Expiration Date</b>	30 August 2018
<b>Reference</b>	RDKR20180302001
<b>Public Link</b>	<a href="https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/7c8d74d0-acc0-4e3a-a0f7-8e61ada6a392">https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/7c8d74d0-acc0-4e3a-a0f7-8e61ada6a392</a>

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### Details

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#### Description

A Korean SME is an information communication technology (ICT) business distributor as well as developer. It is especially specialized in system integration and software verification. A prototype implementing research idea is under development.

The SME is now planning to develop smart product that is networked with internet of things (IoT) and sensors through the Eurostars2 project. The objective of this international research collaboration is to propose a framework and use case model of smart product utilizing IoT and Wireless Sensor Network (WSN). A user interface in the man-machine system and error preventive system is proposed. The expected output of the research collaboration is a framework for smart product realization process.

A few use case models for different application domains are developed. The domain covers product improvement, process innovation, service upgrade and quality assurance with IoT and sensor networked. Finally, a commercial product need to be developed and sold in the local (Korea) and global market. The proposed system will have the following functions: a User interface in the man-machine system: Many errors in the machine system are related to the interface between man and machine.

Thus, it reduces many errors focusing on the interface of man and machine.

- Error preventive system design process: The error preventive design is based on compatibility, action-inducing, consistency, and acceptability. In the error preventive design, four kinds of design approaches are adopted; error clearance design, error-reducing design, safety equipment installed design and warning system.

- IoT and WSN supported system structure: In the future smart world, where everything is mobile, networked and semantic services, virtuality in the cyberspace merges with reality in the physical world. Thus, cyber-physical system (CPS) is needed in our environment.

- A smart product realization process: For the selected domain, the concept of IoT and WSN are applied and a prototype will be developed. The Korean company is looking for an SME, R&D institute, or university in the field of IoT, WSN, and smart product relevant topics. The expected partners should have various experiences conducting research and development, and applications to industry.

The company already have partners for the project in Germany and Finland. Germany partner is an SME expert in cooperation data platform programming and setup of an IoT communication network etc. Finland partner, moreover, is an SME expert in data network quality and reliability.

Deadline for EOI: 30 August 2018

Deadline for Call: 13 September 2018 Project duration: 104 weeks

## Advantages and Innovations

- Smart connectivity with existing networks and context-aware computation using network resources.
- The smart product and service can handle flexibility, adaptability, complexity control and cognitive behavior in the smart world.
- The future scenario will be described as everything is mobile, networked and semantic services. - The virtuality in the cyberspace merges with reality in the physical world.

## Stage of Development

Prototype available for demonstration

## Comments Regarding Stage of Development

- A framework utilizing IOT and Sensor network is developed.
- User interface and error preventive design model are developed.

## IPR Status

Patent(s) applied for but not yet granted

## Keywords

### Technology

01003006	Computer Software
01003014	Internet Technologies/Communication (Wireless, Bluetooth)
01003025	Internet of Things

### Market

02007006	Other system software
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02007015

Integrated software

## NACE

J.62.0.3

Computer facilities management activities

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## Network Contact

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### Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

### Contact Person

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**Open for EOI :**   **Yes**

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## Dissemination

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### Send to Sector Group

ICT Industry and Services

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## Client

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### Type and Size of Organisation Behind the Profile

Industry SME 11-49

### Year Established

1999

### Already Engaged in Trans-National Cooperation

No.

### Languages Spoken

English

Ref: RDKR20180302001

## Client Country

South Korea

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## Partner Sought

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### Type and Role of Partner Sought

Type of partner sought

-R&D Institute, university, and SME

Specific area of activity of partner - IoT, WSN, smart product relevant topics

Tasks to be performed by the partner sought

- A problem domain should be selected based on his/her needs and requirements.

- A system utilizing IoT and WSN for the selected problem.

- A use case will be developed for the selected domain.

- A commercial product should be developed utilizing the developed framework.

### Type and Size of Partner Sought

SME 11-50, University, R&D Institution, SME 51-250

### Type of Partnership Considered

Research cooperation agreement

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## Program - Call

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### Framework Program

Eureka

### Call title and identifier

Eurostars2

### Coordinator Required

No

### Deadline for EOI

30 Aug 2018

### Deadline for Call

13 Sep 2018

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## Attachments

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