H2020-EUK-2018:
EU-Korea Joint Call

EUK-01-2018: Cloud, IoT and AI technologies

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European Commission

DG CONNECT

Cloud and Software

2nd Coordinated Call with S. Korea

1st H2020 Call

July 2016– June 2019

BASMATI (Cloud Brokerage Across Borders for Mobile Users and Applications)

The focus is on Federated Cloud resource brokerage for mobile cloud services. The project develops an integrated brokerage platform targeting federated clouds that support the dynamic needs of mobile applications and users

http://www.basmati.cloud/

Wise-IoT (Wordwide interoperability for semantics IoT)

Wise-IoT aims to build up federated and interoperable platforms ensuring end-to-end security and trust for reliable business environments with a multiplicity of IoT applications.

http://wise-iot.eu/en/home/

What drives a Coordinated call

➢ Alignment of common interests (research and policy) between EU and S. Korea

➢ Specific topics for the collaboration are identified through consultations with industrial and academic stakeholders in both sides and followed by agreement at strategic level with the EC and the funding agencies of the relevant country

➢ Common agreement on the call text and budget allocation → equal amount of funding from both sides

➢ End Results should aim at **co-developing technologies taking into account interoperability issues and contribute to future standardisation** (as reflected in the Impact criteria)

Link to EU Policies

- **Cloud Computing**

  https://ec.europa.eu/digital-agenda/en/telecoms-and-internet/cloud-computing

  https://ec.europa.eu/digital-single-market/en/european-cloud-computing-strategy
  https://ec.europa.eu/digital-single-market/en/free-flow-non-personal-data

- **IoT**

  https://ec.europa.eu/digital-single-market/en/policies/internet-things
  https://ec.europa.eu/digital-single-market/en/alliance-internet-things-innovation-aioti

- **AI**

  https://ec.europa.eu/digital-single-market/en/blog/future-robotics-and-artificial-intelligence-europe

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The Challenge

➢ Over the last years Cloud computing technologies have evolved into the major driver that brought together IoT, Big Data and mobile computing into an integrated and ubiquitous computing platform. The capability offered by the cloud platforms to deliver on-demand computing power and the ability to process the vast amount of data coming from an abundance of devices/sensors will provide a huge impetus to AI technologies as never realized before. **In order to provide AI services on Cloud computing platforms, the harmonious management of computing resources through multi-cloud federation environment as well as huge data management and analytics are necessary**. In addition, there is a need for new mechanisms using intelligence to manage the deluge of data from various surroundings; **standardizing open IoT data management platforms** to enable launching new value-added AI services; data acquisition method using IoT technologies.

➢ **Combining Cloud, IoT and AI** will bring tremendous technological advances with enormous benefits to business and societal applications.

The Scope

➢ The main focus of the joint research is to **develop innovative solutions integrating AI with Cloud and IoT technologies to support future AI applications in an efficient way**.

➢ A number of R&D areas need to be considered so as to deliver these **advanced cloud platforms with IoT for AI** (i.e., *innovative cloud computing models to deliver cross-border future AI applications; new data management models built on AI-based optimal resource allocation; new approaches for cloud resources orchestration for AI data processing; new approaches to handle a dynamic dataset in the federated clouds for AI functions; Cloud and IoT combined platforms managing intelligence from IoT objects and surroundings and supporting data-intensive applications; efficient navigation, device control and enhanced decision-making technologies using intelligence, etc*.).

➢ The technologies developed should be **validated through concrete cross-border AI applications in business** (cross-border enterprise settings) **and/or societal contexts** (e.g. autonomous vehicles in a complex urban area, smart living environments, personal health systems, etc.).

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Expected Impact

➢ **Concrete implementation of interoperable and reliable combined cloud/IoT solutions to support robust AI applications.**

➢ **Facilitate and enhance the adoption of combined cloud/IoT platforms and development, operation and delivery of AI services in future.**

➢ **Credible demonstrations based on cross-border business and/or societal AI applications on the cloud platform developed.**

➢ **Joint contributions to international standardization and/or forum activities.**

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Type of Action & Budget

Type of Action: Research and Innovation Action (RIA)
> **1 project will be funded**

Total EU budget for EUK-01: **2.2 MEUR**

✓ The Commission considers that proposals requesting a contribution from the EU of EUR 2.2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Formalities and schedule

H2020-EUK-01-2018: Opening date: 31 October 2017
Deadline: 31 January 2018 @17h00 (Brussels time)

Additional admissibility criterion

➢ Participants in the EU collaborative projects are required to conclude a **coordination agreement** with the participants in the coordinated project funded by MSIT (Ministry of Science and ICT)/IITP (Institute for Information and Communications Technology Promotion). **A Final draft of this agreement has to be provided with the proposal.**

Additional eligibility criteria:

➢ Proposals submitted to this call which **do not include coordination** with a South Korean proposal submitted to MSIT/IITP for evaluation will be considered **ineligible**.

➢ The proposed project duration shall not exceed **36** months.

➢ The Korean authorities can consider non-eligible proposals with participation of partners from third countries (countries other than South Korea, EU and Associated states). Consultation to MSIT/IITP representatives is highly advisable before submitting proposals involving third country organisations.

➢ Proposals will only be selected on the condition that their corresponding coordinated South Korean project will be funded by MSIT/IITP.

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Coordinated Call Conditions(*)

Submission and evaluation follow the principles of Horizon 2020 calls with certain specific conditions:

- Common PartB (DoA)
  - PMs for each partner (EU+K)/per task is required

- EU and Korean proposals submitted to the respective coordinated calls
  - European consortium signs contract with the EC
  - Korean consortium signs contract with the Korean funding agency MSIT/IITP

- Each proposal should include a coordination agreement
  - Signed before starting the project
  - Does not replace the Consortium Agreement (which is still required from all EU projects)

- EU-Korea research plan: balanced effort, genuine cooperation

- Duration: 3 years max.

- Max. funding (EU): 2.2M€ for 1 RIA project

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(*) read carefully pages 116-118 of WP2018-20 (pre-publication)

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NOTE to Proposers!!!!!!

The aim is <u>NOT</u> in the development of applications <u>using</u> <u>existing</u> cloud+IoT+AI technologies

➢ The aim is to **develop innovative solutions integrating AI with Cloud and IoT technologies to support future AI applications in an efficient way**

Points to check in the RIA proposals:

➢ Does the proposal develop **advanced** technologies (i.e., architectures, middleware and services) <u>**integrating**</u> **Clouds, IoT and AI technologies**?

➢ Does the proposal **advances the SoTA** in these technological areas?

➢ Does the proposal **validate the developed technologies** through **concrete cross-border AI applications in business and/or societal contexts**

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Further information

Horizon 2020

http://ec.europa.eu/programmes/horizon2020/

Participants Portal

http://ec.europa.eu/research/participants/portal/desktop/en/home.html

H2020 WP2018-20:
Call - EU-Korea Joint Call (pages 114-118)
Pre-publication
https://ec.europa.eu/programmes/horizon2020/sites/horizon2020/files/h2020-leit-ict-2018-2020_pre_publication.pdf

Digital Single Market – **Cloud Computing**

https://ec.europa.eu/digital-agenda/en/telecoms-and-internet/cloud-computing

https://ec.europa.eu/digital-single-market/en/programme-and-projects/research-and-innovation-software-services-and-cloud-computing

https://ec.europa.eu/digital-single-market/en/international-cooperation-cloud-computing

Digital Single Market – **IoT**

https://ec.europa.eu/digital-single-market/en/research-innovation-iot

Digital Single Market - **The Alliance for Internet of Things Innovation (AIOTI**)

https://ec.europa.eu/digital-single-market/en/alliance-internet-things-innovation-aioti

Digital Single Market -**AI**

https://ec.europa.eu/digital-single-market/en/programme-and-projects/ai-cognition-fet-project-factsheets

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