H2020-EUB-2017

4th EU-Brazil Coordinated Call

Successful Cooperation

EUB-2011

EUB-2013

EUB-2015

EUB-2017

First Cooperation Workshop
     University of Sao Paulo

> Themes for the first Coordinated Call

EUB-2011

1st Coordinated Call, launched in 2010 (5M€+Eq.)

5 approved projects

- BEMO-COFRA
- OpenBio
- BRSecFuNet
- PodiTrodi
- FIBRE

2nd Coordinated Call, launched in 2012 (5M€+Eq.)

4 approved projects

- EUBrazilCC
- IMPRESS
- GLOBAL ITV
- RESCUER

3rd Coordinated Call, launched in 20142 (7M€+Eq.)

5 approved projects

- **EUB-1 Cloud Computing, including security aspects**
  - EUBRAZILFORUM
  - EUBRA-BIGSEA
  - SECURECLOUD
- **EUB-2 High Performance Computing**
  - HPC4E
- **EUB-3 Experimental Platforms**
  - FUTEBOL

H2020-EUB-2017

Total budget: 8 M€ EU contribution + BR Eq.

EUB-01-2017 Cloud Computing   2.4 M€
EUB-02-2017 IoT Pilots   4.5 M€
EUB-03-2017 5G Networks   1.0 M€

H2020-EUB-2017

Dates

Call opening: 8th November 2016

Call deadline: 14th March 2017

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

ONE Project

1 DoW

Coordination Agreement

TWO Contracts

Additional eligibility criteria

- Participants in the EU collaborative projects are required to conclude a **coordination agreement** with the participants in the coordinated project funded by the **RNP (Rede Nacional de Ensino e Pesquisa - Brazilian National Research and Education Network)**. A draft of this agreement has to be provided with the proposal.

- Proposals submitted to this call which do not include coordination with [the corresponding] Brazilian proposal submitted to RNP for evaluation will be considered ineligible.

What drives a Coordinated call

- Alignment of common interests (research and policy) between EU and Brazil

- Specific topics for the collaboration are identified through consultations with stakeholders in both sides and followed by agreement at strategic level between the EC and the Ministry of Science, Technology, Innovation [and Communication] in Brazil

- Agreement on the call text and budget allocation → equal amounts of funding from both sides

- Aiming at...

EUB-01-2017

CLOUD COMPUTING

Projects from the 3ʳᵈ Coordinated Call

2 RIAs

SECURECLOUD

- aims to remove technical impediments to dependable cloud computing by ensuring the confidentiality, integrity, availability and security of applications and their data. It will validate and demonstrate the benefits of the approach by applying it to realistic and demanding Big Data use cases in the domain of critical infrastructures.

  https://www.securecloudproject.eu/

EUBRA-BIGSEA

- focuses on the development of advanced cloud services to support Big Data by providing services in the cloud for the processing of massive data coming from highly distributed sources.

  http://www.eubra-bigsea.eu/

INCOBRA Webinar, 06 Dec 2016   13

1 CSA

EUBRAZILCLOUDFORUM

- aims at establishing an organisational cooperation model that enables the EU and Brazil to formulate and develop a common policy and research strategy and approach for research & innovation in Cloud Computing in line with the priorities of each region.

  http://eubrasilcloudforum.eu/

Dr. Jorge Pereira, EC, DG CONNECT

Cloud Computing International priorities
in line with Digital Single Market (DSM) policy and EU Cloud strategy

➢ **Targeted Cloud research** that is driven through coordinated calls in FP7 and H2020 (current collaboration activities include, besides Brazil, Japan and South Korea)

➢ **Cloud policy** coordination on specific areas: international standards for SLAs, certification and cross border data flows (on-going bilateral dialogues and actions with USA and Brazil)

✓ *Results from international Cloud Research will facilitate policy coordination in the relevant areas between the EU and the involved third countries.*

EU-Brazil cooperation on Cloud Computing - the political context

**European Council Conclusions
EU Heads of State and Government,
25 Oct 2013**

**Chapter on "Digital Economy,
Innovation and Services"**

➢ *Several strategic technologies such as Big Data and **Cloud Computing** are important enablers for productivity and better services.* Cloud Computing should improve access to data and simplify their sharing. Big Data aims to process, collect, store and analyse large amounts of data

➢ *EU action should provide the right framework conditions for a single market for Big Data and Cloud Computing, in particular by promoting* high standards for secure, high-quality and reliable *cloud services*

https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/139197.pdf

**7th EU-Brazil Summit:
Brussels, 24 Feb 2014**

Joint Statement, Chapter on "Boosting Competitiveness, Growth and Jobs, Paragraph 16:

"In the domain of ICT cooperation we welcomed the enlarged policy cooperation in Cloud Computing. On ICT infrastructure, we welcomed the plans for the future installation of a fibre-optic submarine cable linking Brazil and Europe, which will improve communications between the two continents, facilitate the take-up of broadband, stimulate ICT investments, reduce the interconnectivity costs for our businesses and researchers, enhance the protection of communications and provide better functional characteristics"

EC and Brazil Presidents: "These *aims should be translated into concrete initiatives by the next EU-Brazil Joint Action Plan 2015-2017*"

EUB-01-2017: Cloud Computing

Specific Challenge

Cloud computing is now an established global paradigm for the delivery of IT services in all sectors of the digital economy. However, further enhancements are still required in critical aspects of cloud computing, including **enhanced security and privacy**; **trustworthy clouds**; **resource pooling; data management and traceability; virtualization; and hybrid systems**. Support towards **intercontinental experimentation** on cloud infrastructures and services are necessary as well, especially in the context of EU-Brazil cooperation.

EUB-01-2017: Cloud Computing

Scope - Research and Innovation Actions (RIA)

➢ The focus of the joint research will be the development of **innovative technologies** for **next generation cloud infrastructures and services** able to cope with the challenges from different application domains in **business** and **societal** contexts. The technologies to be developed should aim at **future standardization** as well as take into account **interoperability** and **data portability**.

Expected impact

The joint EU-Brazil research is intended to develop **innovative cloud computing technologies leading to next generation solutions**. The research collaboration will also facilitate and enhance policy coordination between the EU and Brazil in relevant areas.

In particular, projects are expected to:

➢ Facilitate the development of **cloud-enabled**, **secure and trustworthy** applications **based on robust standardized technologies.**

➢ Develop technologies to manage **hybrid resources** in the cloud, as well as solutions for **cloud-centered** data management.

➢ Submit **joint contributions** towards **international standardization** activities.

Types of Action & funding

Research and Innovation Actions:

The Commission considers that proposals requesting a contribution from the EU between EUR 1.0 and 1.5 million would allow this specific challenge to be addressed appropriately by two distinct projects.

Total available EU funding = €2.5 million with matching funds from Brazil

Nonetheless, this does not preclude submission and selection of proposals requesting other amounts

---

Useful links

Horizon 2020
   http://ec.europa.eu/programmes/horizon2020/

H2020 WP2016-17 - EU-Brazil Joint Call (pages 115-120)
   http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-leit-ict_en.pdf

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

   http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eub-01-2017.html

Digital Single Market – Cloud Computing
   https://ec.europa.eu/digital-single-market/en/cloud

EUB-01-2017 Call coordinator:
Maria Tsakali   maria.tsakali@ec.europa.eu

   Proposers should contact their National Contact Point for pre-proposal check
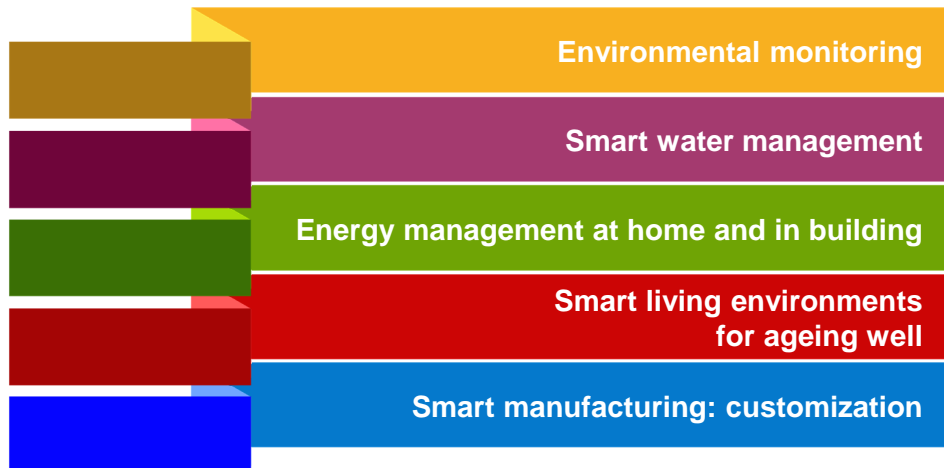
EUB-02-2017
IOT PILOTS

Specific Challenge

- Demonstrate the rich potential of IoT in real-world scenarios in controlled environments with a validation goal. Replicable pilots in view of solving specific societal challenges

- Reuse of previous work done on M2M/IoT, CPS architectures, platforms and standards is encouraged. Demonstrate generic applicability or identify missing standards.

- Pilot's objectives include user acceptability, technology assessment and optimisation, business model validation, approaches to sustainability and development.

Scope   RIA

- The joint call would support three pilots each addressing a distinct area among the following areas of interest for EU-Brazil collaboration:

Environmental monitoring

Smart water management

Energy management at home and in building

Smart living environments for ageing well

Smart manufacturing: customization

Expected impact   RIA

- Empower citizens and businesses and improve associated public services where appropriate.

- Beyond validation, business models are expect to guarantee sustainability

- Take into account security and privacy aspects relating to access to and processing of collected information

- Improved sharing of information, approaches and solutions, as well as expertise through:

  - pilots on both sides and across the Atlantic, involving end-users.

  - establishing common benchmarks;

  - contributing to standardisation and to open-source and open-data repositories

  - linking with ongoing work in the IoT Focus Area.

Useful links

Horizon 2020
http://ec.europa.eu/programmes/horizon2020/

H2020 WP2016-17 - EU-Brazil Joint Call (pages 115-120)
http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-leit-ict_en.pdf

Participants Portal

- http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eub-02-2017.html

Internet of Things in DSM: **http://ec.europa.eu/digital-agenda/en/internet-things**

The Alliance of Internet of Things Innovation AIOTI **http://www.AIOTI.eu**

IOT – European Platform Initiative http://www.IOT-EPI.eu/

EUB-02-2017 – Topic Coordinator:
Georges Lobo *Georges.Lobo@ec.europa.eu*

Proposers should contact their National Contact Point for pre-proposal check

---

EUB-03-2017
5G NETWORKS

Specific Challenge

- 5G is expected not only to boost the services already provided by 4G (LTE-Advanced-PRO), but also to enable several **new services and applications in multiple environments**.

- **5G standardisation** started in 2016 and is expected to extend until 2020 for a full specification. There is still significant work to carry out to make sure that the **multiple technologies** contemplated for 5G will meet the **full range of service requirements**.

- **Early validation** with the widest possible footprint of candidate technologies for 5G is hence needed to support global consensus based on "derisked" technologies.

Scope

- **Test and validate** technologies currently contemplated for early 5G standardisation, **primarily at radio access level** but with a **clear use case focus**.

- Address specific vertical use case scenarios:
  - **massive Machine-type Communications (mMTC) or Ultra-Reliable and Low-Latency Communications (URLL) OR**
  - **coverage of low population density areas**. For this latter case, validation of spectrum options is in scope.

Testing and validation

- The testing and validation of technologies supporting core 5G standards is expected to be carried out through prototypes and user experiments.

Expected Impact

- To support the development of **innovative technologies** in the context of 5G radio access or core network, to provide solutions for demanding requirements of [relevant] "vertical" sectors or for coverage of low density regions.

Other impacts

- novel contributions on 5G standards in support of global industry consensus,

- support and spin off contributions to the ITU/3G PP standardisation roadmaps, e.g. through submission of joint contributions in these fora by EU and Brazilian players,

- validation of 5G use cases applicable to low density regions or mMTC/URLL scenarios.

Type of Action and Funding

Research and Innovation action

- The Commission considers that proposals requesting a contribution from the EU of **EUR 1 million** would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Useful links

Horizon 2020
   http://ec.europa.eu/programmes/horizon2020/

H2020 WP2016-17 - EU-Brazil Joint Call (pages 115-120)
   http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-leit-ict_en.pdf

Participants Portal
   http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/eub-03-2017.html

EU-Brazil Call Coordinator

EUB-02-2017 – Topic Coordinator:
Jorge Pereira   *Jorge.Pereira@ec.europa.eu*

Proposers should contact their National Contact Point for pre-proposal check