

## Open Call 3: EU – US Platforms interconnections and NGI results experimentation

NGIatlantic.eu 3<sup>rd</sup> Open Call Duration: 01 December 2020 until 26 February 2021, 17:00 CEST

The main goal of the NGIatlantic.eu Open Calls is to incentivize EU – US NGI teams to carry out experiments using EU and/or US based experimental platforms. This will take the form of funding to be provided through a cascade grant process for the EU counterparts of the teams formed.

### 3<sup>rd</sup> Open Call Topic Priorities

The **priority coverage areas** of the NGIatlantic.eu 3<sup>rd</sup> open call is **twofold**:

- a) **EU – US Experimental Platforms interconnection**: this topic invites established designers and facility providers of experimental infrastructures, testbeds, and platforms enabling experimentation in the NGI areas on both sides of the Atlantic to interconnect with each other, to offer their facilities on a continuous basis to its community of experimenters and application developers in other NGI topics.
- b) **NGI Priority topics where results are already available for experimentation on EU – US platforms**. The focus on this part of the call will be taking results from topics already in a mature state in the related priority topics of the NGI initiative to the next stage of experimentation of results on EU – US experimental platforms. In addition to continuing with the 3 prior ICT-24-2018 topics in our first two open calls, the project has added two new topics arising out of the project's EU – US External Advisory Group (EAG) workshop held on 24 November 2020. **Please note** that similar to the first two open calls, while the focus is on these topics addressed in other NGI RIA projects and their 3<sup>rd</sup> party projects, the NGIatlantic.eu 3<sup>rd</sup> open call also **welcomes new EU innovators not already involved in other NGI projects** that have their own results related to these topics and who wish to carry out experiments with a US-based team.

**Note: it is possible for EU – US teams to put in one application that include both elements of a) and b).**

### Expected scope of the 3<sup>rd</sup> open call.

#### a) **EU – US Experimental Platforms interconnection**

The proposed applications for EU – US infrastructures and platforms, both wired and wireless or combination of both, should be suitable for experimentation and application development in the following NGI priority areas: Privacy and Trust enhancing technologies; Decentralized data governance; Discovery and identification technologies; Strengthening internet trustworthiness with electronic identities; Service and data portability; and Open Internet architecture renovation. The transatlantic experimental platforms must also be relevant with key NGI enabling technologies: 5G (or beyond), IoT, Big Data, AI, ML, Next Generation Media, Self-Sovereign-identity (SSI) infrastructures, Governance interoperability infrastructures between local assurance communities that keep track of trusted issuers, cybersecurity and resilience, and others.

Successful EU – US infrastructures/platforms will be integrated in the NGIatlantic.eu project and made available for future NGIatlantic.eu experimentations. The EU – US infrastructure/platform



facilities will be listed on the NGIatlantic.eu website and promoted as a suitable transatlantic platform for experimentation/implementation to be funded in the subsequent NGIatlantic.eu open calls. The accepted EU – US experimental facilities will also be promoted on the NGIatlantic.eu Twinning Lab for the remainder of the project.

Where the EU – US infrastructure/platforms are utilized in the forthcoming successful projects, the owners/providers will be entitled to receive funding for the support and maintenance required, depending on specific conditions of the open calls and requirements of the proposal. Any costs needed to run/maintain these platforms could be included by the coordinator applicant in the proposal budget, to be agreed between the partners. **Note:** This funding for experimental platforms will also be subject to the EU – US Implementation arrangement rules.

**b) NGI Priority topics where results are already available for experimentation on EU – US platforms.**

Key enabling NGI technologies - 5G, Big Data, IoT, Cybersecurity, A.I., Self-Sovereign-identity (SSI) infrastructures, and others, addressing NGI priority topics where results are already mature enough for experimentation, including:

1. **Privacy and Trust enhancing technologies – experimentation of results** on the NGI call topic related to the development of robust and easy to use technologies to help users gain improved trust and greater control when sharing their personal data, attributes and information.

2. **Decentralised data governance - experimentation of results** on the NGI call topic related to leveraging distributed open hardware and software ecosystems based on blockchains, distributed ledger technology, open data and peer-to-peer technologies with particular focus on ethical, legal and privacy issues, as well the concepts of autonomy, data sovereignty and ownership, values and regulations.

3. **Discovery and identification technologies - experimentation of results** on the NGI call topic related to new methods of search, discovery, and access of large heterogeneous data sources, services, objects and sensors, devices, multi-media content, etc. and which may include aspects of numbering; providing contextual querying, personalised information retrieval and improved quality of experience.

4. **Strengthening internet trustworthiness with electronic identities - experimentation of results** on the NGI call topic related to increasing trust in the internet such as authentication, authorisation, traceability, privacy and confidentiality in personal and non-personal interactions. This results within this topic being experimented can include self-sovereign-identity (SSI), federated and/or decentralised technologies for supporting internet-wide e-identities with various levels of identification, reputation and trust, to serve as a basis for new business models for verifying and valuating personal data. Proposers should pay attention to the following dimensions: interoperability, scalability, ease of use, deployability, sustainability, standardisation and compatibility with the eIDAS framework[1].

5. **Greening the Internet: a Sustainable and Climate-friendly NGI – experiments of results** related to use case implementations of innovative internet technologies and transparency mechanisms on EU – US experimental platforms shown to: fight against the climate change with significant improvement of energy efficiency, carry out measurements to create awareness of environmental impact of the Internet, and promotion of technologies that help reduce the energy consumption and carbon emission. As background, the NGI Forward project has identified a *Sustainable and Climate-friendly Internet* as one of eight key topics that will set out a vision for a better, more human-centric future internet and inform the initiative's policy and technology research agenda going forward<sup>1</sup>. The authors of the eight topics at DATALAB, Aarhus University, point out if more priority isn't given

<sup>1</sup> <https://datalab.au.dk/stay-tuned/nyhed/artikel/eight-goals-for-a-human-centric-internet/>



immediately towards the greening of the internet, including sustainability and controlling emissions, it is estimated that the global carbon footprint of the Internet and the supporting systems is already similar to the amount produced by the airline industry globally and that the carbon footprint of the global internet technologies will double by 2025<sup>2</sup>. Indeed, optimal resource consumption and minimization of carbon emission is a great challenge for the Next Generation Internet. Data centres and networking devices consume significant amounts of energy. It is imperative to improve energy efficiency, both locally and at the Internet level. Currently, there is a significant lack of transparency of environmental cost, which should be urgently resolved given the vast scale of resource usage. Therefore, NGIatlantic.eu invites EU – US applicants that can provide and experiment with transparency mechanisms on the environmental cost of the Internet. Identification and tagging of most resource consuming elements are also very important and urgent. On both sides of the Atlantic, there has already been some early research and innovation projects and initiatives<sup>3</sup> focussing on alternatives to improving energy efficiency to ensure the greening and sustainability of the Internet and of the economy relying on it. This topic welcomes the results from these EU activities to team up with US teams (or vice versa, with US teams twinning with EU teams) to carry out experiments in this vitally important NGI topic.

As mentioned, **please note this open call is open to all**, and not only restricted to the NGI 3<sup>rd</sup> party projects funded already in the NGI RIAs in these areas.

### Type of Proposals

Two types of proposals can be funded under the NGIatlantic.eu Open Calls, as shown below.

Proposal type	Description	Maximum Contract duration	Monitoring frequency	Funding range*
LT – Long term contributions	EU-US NGI experiment project with R&I activities	6 months	Monthly	€50,000 - €150,000
ST – Short-Term contributions	EU-US NGI experiment project with R&I activities.	3 months	Fortnightly	€25,000 - €75,000

\* Eligible Costs: Cost of personnel (inclusive of 25% overhead) and travel & subsistence (cost-reimbursement contracts).

**Guidance:** For projects applying in **a) Experimental Platform interconnections**, since these projects are dealing with the interconnection activities of already mature experimental platforms, there would be an expectation that these projects would probably best fit in the Short Term (ST) projects category. Please note there are already some funding mechanisms provided by the NSF in a similar funding range as provided to ST projects that the US teams can avail of. For example, see Supplemental Funding Requests to Conduct Experimental Research on the NSF-funded Platforms for Advanced Wireless Research (PAWR)<sup>4</sup>. However, this guidance does not preclude other project types and amounts being requested, if explained and justified.

<sup>2</sup> <https://www.bbc.com/future/article/20200305-why-your-internet-habits-are-not-as-clean-as-you-think>

<sup>3</sup> <https://ictfootprint.eu/en/register-our-marketplace>

<sup>4</sup> <https://www.nsf.gov/pubs/2020/nsf20046/nsf20046.jsp>



**The following proposals will be preferably selected for funding, as follows:**

**Category a:** minimum 2 proposals with a clear centre of gravity in Cat a. It is recommended to use the ST type for proposals that focus on this category. If proposals combine topics of Cat a and b, they can use the LT type;

**Category b (5):** minimum of 2 ST proposals with a centre of gravity in Cat b (5);

**Category b (1-4):** all topics 1-4 shall be covered by proposals, with expectation of 3 ST projects funded and 1 LT project funded (please note this 1 LT could be a combined project concerning category a and category b).

### Open Call for Applications - Process and Timing

#### **3rd Call timing:**

- Launch: 1 December 2020;
- Submission of Declaration of Honor (DoH) by 26 February 2021, 17:00 CET with the application;
- Deadline: 26 February 2021, 17:00 CET;
- Evaluation: Each proposal will be evaluated by members of an External Pool of Evaluators (EPE);
- Notification of Outcome: Applicants will be notified on the outcome of their proposal within two months of the deadline.

If your proposal is successful, you will be contacted within 5-10 business days of notification to take the steps necessary to prepare and sign the contract for the funding. Please note that a deadline of 10 business days will be applied to confirm both EU and US coordinator's intention to take up the contract to enable the funds to be re-allocated to other successful applicants.

#### Evaluation Criteria

Each proposal will be evaluated based on the 4-criterion given below, with a scoring from 1 to 10 and the weighting indicated:

Criteria 1: Soundness of the proposal and foreseen impact on the Open Call topic (30%);

Criteria 2: Technical excellence & adherence to the Open Call topics (30%);

Criteria 3: Experience and qualifications of the applicant (20%);

Criteria 4: Economics of the proposal (20%).

The final scoring and ranking will be automatically determined by averaging the scores provided by the 3 independent evaluators identified from NGIatlantic.eu's EPE.

#### Who can receive financial support?



Private and public organisations of any size (not individual researchers) located within the EU Member States or Associated Countries and twinned with a US counterpart, as described above to carry out the activities proposed. Please note that the funding is limited to coverage of the work to be carried out by the EU team. For the US teams, please refer to the funding mechanisms of your US partners (e.g. National Science Foundation).

### **Will there be more open calls?**

Yes. In addition to this call, NGIatlantic.eu will launch another 2 Open Calls in the period May 2021 – November 2021 – this is just the 3<sup>rd</sup> chance to get your EU – US NGI experiment funded!



## Supporting Documents

Full Open Call text as PDF file

Proposal template in pdf format (contains brief instructions and its use is mandatory)<sup>5</sup>

Proposal template in word format (contains brief instructions and its use is mandatory)

Template for DoH

General information presentation

Declaration of Honor (DoH) to be signed by both EU coordinator and US coordinator<sup>6</sup>

Standard Contract for successful proposals (Cost-reimbursement contract)<sup>7</sup>

[FAQ](#)

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<sup>5</sup> Will be available when call opens.

<sup>6</sup> Will be signed by both EU and US coordinators at application submission stage.

<sup>7</sup> Will be available for signature by the EU coordinator after signatures of the DoH.

