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IMAGINE-B5G

Advanced 5G Open Platform for Large Scale Trials and Pilots across Europe

Guide for Applicants

Version v3   Date: 2024/02/22

Imagine
B-5G

1. Call Information

Project full name: IMAGINE-B5G

Project number: 101096452

Call identifier: IMAGINE-B5G -OC2

Call name: Second IMAGINE-B5G Open Call for Vertical Experiments and Platform Extensions

Types of projects: (i) Vertical Experiments, (ii) Platform Extensions

Type of participants: The profile of participants is SMEs, industry or academics, active in research and/or development of B5G technologies and/or applications. The rules of participation are the same as for any HEU proposal.

Number of partners per proposal: The target number of participants per proposal is one partner (Coordinator only) or maximum two partners (1 Coordinator and 1 Distinct partner).

Total budget for second open call: €2.000.000 (two million Euros). IMAGINE-B5G targets to allocate at least 50% of the open-call budget to the SMEs, scaleups and start-ups.

Number of proposals to be funded: up to 16 Vertical Experiments and up to 7 Platform Extensions.

Maximum funding per proposal: For Vertical Experiments and Platform Extensions - up to €100.000 for one partner or 140.000 Euros for two partners (broken down as follows: Coordinator €80.000 and partner €60.000).

Duration of the experiment/extension: The maximum allowed duration of Vertical Experiments and Platform Extensions are 12 Months.

Language of the proposal: English

Format of the proposal: Proposals must follow the **Proposal Template**

Proposal submission: https://imagine-b5g-oc2-2024.hotcrp.com/

Feasibility check deadline: May 15th, 2024 at 17:00h CET (Brussels time)

Call deadline: May 31st, 2024 at 17:00h CET (Brussels time)

Notification of acceptance: July 31st, 2024[1]

Starting date for projects: October 1st, 2024

Contact: imagine-b5g-opencall@iteam.upv.es

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[1] This is an indicative date.

2. Call Introduction and Objectives

IMAGINE-B5G brings together **four advanced 5G experimental facilities**, located in **Norway, Spain**, **Portugal,** and **France**. Collectively, the facilities will support a set of Beyond 5G (**B5G) applications** (including immersive **holographic**, **haptic and telepresence** communications for enhanced human interaction, among others) enabled by the integration of **advanced 5G technologies**.

The different facilities of IMAGINE-B5G will have diverse set of advanced 5G technologies as described in *Facility Description Document*[2]. The infrastructure of the facilities in Norway, Spain and Portugal will be based on industry equipment, with some components being open-source. The French facility will bring a completely **open-source end-to-end 5G implementation.** The project will implement easy-to-use portal and APIs to enable vertical trials to leverage resources of the facilities. The architectures will ensure the accessibility and openness as well as forward compatibility of the facility infrastructure using an open framework through portal and open APIs to provide access across the multiple interworking facility sites.

The functionalities built into the IMAGINE-B5G platform will enable the project to **identify, monitor and validate use case specific KPIs** (Key Performance Indicators) at different levels (application, management/network and societal), demonstrating the value of the advanced 5G solutions and applications.

IMAGINE-B5G has set out a comprehensive plan to on-board the third parties via open-calls. 40% of the project budget will be devoted for open-calls, i.e., 4.44 M€. This includes a 3-phase approach where each phase is associated with a **release of the IMAGINE-B5G platform** and a Financial Support to Third Parties (FSTP) **open-call for vertical experiments** through pilots and trials. Note: IMAGINE-B5G targets to allocate at least **50% of the open-call budget to the SMEs, scaleups and start-ups**. To this end, the open calls will specifically prioritize projects that involve SMEs, scaleups and start-ups.

In the second **open-call (OC-2),** third parties are invited to submit to one of two (2) types of projects that qualify for receiving financial support:

1. **OC-2-Ver. Vertical Experiments:** Research & Innovation & Experimentation projects for vertical applications (pilots and trials). To engage third-party stakeholders towards the conceptualization, development, experimentation, testing and validation of novel vertical applications through pilots and trials on the IMAGINE-B5G facilities.
2. **OC-2-Ext. Platform Extensions:** Hardware and / or Software Extensions to the IMAGINE-B5G Platform. To provide novel features through Hardware and / or Software extensions to the IMAGINE-B5G facilities thanks to the openness of the IMAGINE-B5G framework.

In terms of **Vertical Experiments** proposals, IMAGINE-B5G has shortlisted seven verticals: Public Protection and Disaster Relief (PPDR), media, education, smart agriculture & forestry, eHealth, transportation & logistics, and Industry 4.0. These verticals and IMAGINE-B5G use cases related to

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[2] https://imagineb5g.eu/2nd-open/

these verticals are described in *Vertical Experiment Document*[3]. In this document, we have also highlighted the desired vertical experiments that are complimentary to IMAGINE-B5G use cases, and these experiments will be prioritized. However, IMAGINE-B5G projects welcomes any other vertical or different use cases under the specified verticals.

In terms of **Platform Extensions**, IMAGINE-B5G has identified several potential HW and SW extensions to the facilities, and these are described in *Platform Extension Document*[4]. The extensions in that document will be prioritized; however, IMAGINE-B5G projects welcomes any other extension projects as long as these extensions can provide value to the IMAGINE-B5G facilities and open up new opportunities for vertical experiments. As our call is **open to all,** we are hoping to also attract the advances achieved through the SNS Stream A[5] or Stream B[6] Open Call projects as platform extensions.

Note that it is possible for a proposal to contain both experiment and extension elements. However, since it is only possible to submit to one area only, the proposer must determine the best fitting category to submit to as follows: If the majority of the proposed work involves experiment, trials and validation, and requires minor hardware and / or software extensions, it will fit best to a **Vertical Experiments** proposal. If the majority of the work involves hardware integration and / or software development and a minor amount of experimentation, it will best fit to a **Platform Extensions** proposal. If a proposer has questions on where the particular proposal best fits, they can ask the IMAGINE-B5G project team either before or during the feasibility check (see section 8) for assistance on this decision.

Expected duration of participation: The selected projects in will be given up to 12 months to carry out their experiments / extensions. For extension projects, to maximise impact for the entire IMAGINE-B5G ecosystem, it will be expected that the funded extensions projects will provide an integrated version of the platform extension by March 2025.   Please keep in mind that **Platform Extensions** projects are **required to provide continued support** on the implemented extensions until the end of the IMAGINE-B5G project (December 2025).

Maximum amount of financial support for each third-party project: The projects selected can be awarded a maximum budget of up to €100.000 for a one-partner team and €140,000 for a two-partner team over 12 months. Additional details are provided in section 4.

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[3] https://imagineb5g.eu/2nd-open/

[4] https://imagineb5g.eu/2nd-open/

[5] Any Open Call participant of BeGREEN, 5G-STARDUST, SEASON, 6Green, VERGE, NANCY or ACROSS.

[6] Any Open Call participant of EINSTEIN6G, ADROIT6G, DESIRE6G, PREDICT-6G, TERA6G, TERRAMETA, 6GTandem, CENTRIC, TIMES, FLEX-SCALE, ETHER, 6G-NTN, SUPERIOT, CONFIDENTIAL6G, RIGOUROUS, HORSE, PRIVATEER, Hexa-X-II, or 6G-SHINE

3. Call Eligibility criteria and allowable funding costs categories

3.1 Eligibility Criteria

The following are the **Eligibility Criteria** for each of the IMAGINE-B5G open-calls:
- Any legal entity in Europe and Associated country with a validated PIC number.
- Applicants based in Member States or EU Associated countries.
- Each project proposal must be submitted by a single legal entity acting as Coordinator (representing a single entity or a Team of maximum two members representing two different legal entities).
- A completed application relevant to the scope of the call before the deadline is submitted.
- At the time of submission, the coordinator must acknowledge their prior knowledge and acceptance of the terms of IMAGINE-B5G Open call *Sub-Grant agreement*[7], as there will not be a negotiation phase prior to signing of the IMAGINE-B5G Open call Sub-Grant agreement if the project is selected for funding.
- Applicants have not been awarded a grant in a previous IMAGINE-B5G call whose project period and content is overlapping with the current call (i.e., the same applicant can be awarded up to 2 projects in different Open calls only if the projects period and content is not overlapping).
- Applicants cannot have more than 1 successful applications to the same call. What this means in effect is that only one project per organization will be funded in same open call. While there is nothing to stop an organization from participating to two different proposals in the same open call, if both end up placed high on the ranking list, only one of them will be funded in the open call, the other will be ruled as "ineligible for funding".
- There is nothing to prohibit an application to IMAGINE-B5G open calls at the same time as an application to another SNS project(s) open call; however, under no circumstances is double funding for the same activity admissible and the SNS project team(s) will be coordinating with each other to determine multiple participations in open call projects.
- If accepted for funding, the coordinators are required to sign a Declaration of Honour (DoH) stipulating that the entity is eligible for financing in line with eligibility rules of Horizon Europe, declares no double funding and has operational capacity, with the possibility for requests for additional documentation if/when required.

3.2 Allowable funding costs categories

Within the FSTP programme in IMAGINE-B5G, the **activities that qualify for the financial support to third parties** are:
- Personnel costs for the development, integration, experimentation, testing and validation activities.
- Infrastructure, hardware, and software to deploy the project.
- Travel and accommodation to participate in IMAGINE-B5G proposed activities.
- Communications and promotional activities.

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[7] https://imagineb5g.eu/2nd-open/

4. Funding Scheme for the Experimenters

The awarded projects in Open Call 1 have different maximum funding levels to be granted per project depending on the type of the open-call project, and number of team members (up to maximum of two), as follows.

i. **Vertical Experiments:** Research & Innovation & Experimentation projects for vertical applications (pilots and trials)**. The maximum grant values are shown in Table 1**. Here, we target larger projects with significant impact. To achieve a greater impact with these projects, careful design and thorough analysis of the experiments are required. Considering that learning to run experiments in a new experimental platform also takes time even in the presence of available resources such as a user manual and targeted hands-on workshops, these projects are given a 12 month-period to design and execute their experiments.

ii. **Platform Extensions:** Hardware and / or Software Extensions to the IMAGINE-B5G Platform. The **maximum grant** values **are shown in Table 1**.

Table 1. IMAGINE-B5G FSTP Maximum grant values per project

Call #	Type of call	Partner 1 [up to]	Partner 2 [up to]	Maximum
Open Call 2	Vertical Experiments (Trials and Pilots) & Platform Extensions (HW&SW)	€100.000	N/A	€100.000
		€80.000	€60.000	€140.000

 Please note these maximum values are indicative and other lower cost values are acceptable dependent on the scope and length of proposed project as detailed in the proposal.

With this funding, we expect the following number of projects in each one of the test facilities:

Table 2. Expected number of projects to be funded in each facility.

Facility	Norway*	Spain*	France*	Portugal*
Vertical Experiments	3-6	3-5	2-4	2-4
Platform Extensions (including Stream A or B)	1-2	1-2	0-1	1-2

* Indicative numbers depending on accepted funding allocations.

Please note: Further details on the Deliverables and Payments can be found in section 7 below and in the IMAGINE-B5G Open calls **Sub-Grant agreement** Annex 2, page 15.

5. Conflict of Interest and Ethics and Values

The requirements in relation to Conflicts of Interest and Ethics and Values are highlighted in the IMAGINE-B5G Open calls Sub-grant agreement. In essence, the open call projects are obliged to adhere with the relevant articles in the Horizon Europe Model Grant Agreement (HE-MGA), whose latest annotated full version can be found here [8] for further reference.

In relation to **Conflict of Interest**, the most relevant Article in HE-MGA that Open call participants are obliged to follow is **ARTICLE 12 — CONFLICT OF INTERESTS**, including:

12.1 Conflict of interests. The beneficiaries must take all measures to prevent any situation where the impartial and objective implementation of the Agreement could be compromised for reasons involving family, emotional life, political or national affinity, economic interest or any other direct or indirect interest ('conflict of interests'). They must formally notify the granting authority without delay of any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation. The granting authority may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

12.2 Consequences of non-compliance. If a beneficiary breach any of its obligations under this Article, the grant may be reduced (see Article 28 in HE-MGA) and the grant or the beneficiary may be terminated (see Article 32 in HE-MGA). Such breaches may also lead to other measures described in Chapter 5 in HE-MGA.

In relation to **Ethics and Values**, the most relevant Article in HE-MGA that Open call participants are obliged to follow is **Article 14 – ETHICS AND VALUES**, including:

14.1 Ethics. The action must be carried out in line with the highest ethical standards and the applicable EU, international and national law on ethical principles. Specific ethics rules (if any) are set out in Annex 5 in HE-MGA.

14.2 Values. The beneficiaries must commit to and ensure the respect of basic EU values (such as respect for human dignity, freedom, democracy, equality, the rule of law and human rights, including the rights of minorities). Specific rules on values (if any) are set out in Annex 5 in HE-MGA.

14.3 Consequences of non-compliance. If a beneficiary breach any of its obligations under this Article, the grant may be reduced (see Article 28 in HE-MGA). Such breaches may also lead to other measures described in Chapter 5 in HE-MGA.

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[8] https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/agr-contr/unit-mga_he_en.pdf

6. Security considerations

As the results of the vertical experiment or platform extension are to deployed on live test facilities, there are additional requirements on successful applicants.

- Information on the technical configuration or internal structure of the test facilities are considered sensitive information, unless otherwise instructed. Care should be taken not to disclose this sensitive to other parties.

- Logins, credentials and security tokens are not to shared.

- The deployed experiment or platform extension **must be available** for the entire duration of the IMAGINE-B5G project (till December, 2025)

Additional security measures may be requested to be enforced. For example, such requests may include, but are not restricted to, some or all of the following:

1. Documenting and improving how the Open call project manages access control;
2. Data protection and privacy procedures, especially when Use Cases require sensitive data handling, storage and encryption;
3. Ethics consideration on the use or management of data;
4. Incident management and reporting - how potential vulnerabilities are identified, tracked and corrected;
5. Adherence to security standards and best practices;
6. Adherence to test-facility access and acceptable usage policies.

Please indicate on the work plan which task will handle these requests, should the need arise.

7. Reporting and Payments

The reporting requirement for open call projects is based on a defined template while being kept to a minimum to ensure the project's main work is focussed mainly on the achievement of the technical aspects.

In summary, two defined deliverables are required:

Deliverable 1 (D1). Detailed execution plan including report on usage of the PARTNER(s) resources to fulfil this contract (Even though a lump sum model is being used for payment, for monitoring purposes, the open call participants must report on the number of person months spent, personnel and other costs, as well as related indirect costs) for first month of the project must be provided to the IMAGINE-B5G coordinator.

Deliverable 2 (D2). Final report and results including report on usage of the PARTNER(s) resources for entire duration of the contract (Even though a lump sum model is being used for payment, for monitoring purposes, the open call participants must report number of person months spent, personnel and other costs, as well as related indirect costs). D2 must be accompanied by a corresponding signed request for payment from the PARTNER as evidence the money has been spent.

The reporting requirement is outlined in the IMAGINE-B5G Open calls Sub-grant agreement Annex 2, page 15.

7.1 Payments

Within IMAGINE-B5G, the grant is associated with the performance of the third-party and will be released in three instalments, one per phase of the project. To trigger payments, the Open call projects must:
- comply with the set of performance KPIs and deliverable contents that will be defined at the beginning of the project.
- Pass the deliverable review and payment approval.

The payments to the participants will be made to the project coordinators on the following schedule using a Lump Sum Model:
- 35% of the maximum financial support after approval of Deliverable 1 (D1) by IMAGINE-B5G consortium.
- 50% of the maximum financial support after approval of Deliverable 2 (D2) by IMAGINE-B5G consortium.
- 15% of the maximum financial support after the successful review of the project that includes the first two payments for the open call projects, only after approval of the PARTNER's work by the IMAGINE-B5G project and by the independent reviewers in the periodic review process. The final total amount to be paid to the PARTNER will be defined after approval of the final PARTNER's report, which cannot be higher than the maximum financial support defined above.

8. Proposal Template

Applicants must use the *proposal template*[9]. In the document, applicants will find instructional texts specifying the type of information expected per section.

Each section has indicated limited number of pages. The applicants are sole responsible for completing all required fields in the template according to the instructions.

Please remember when preparing your work plan, you are required to have at least two deliverables as follows:

- D1 – Detailed implementation and execution plan (due end of M1);
- D2 – Final report and results (due end of M12).

Other deliverables can be marked as WD (Working deliverables) with a corresponding number.

NOTE: If you are providing a Platform Extension, please remember you will have to have a basic version integrated by M6 (March 2025).

The deadline for submission of a proposal is **31st of May, 2024**.

9. Feasibility Check

It is mandatory that the open call proposers get feasibility check before the submission of the proposal. To get the feasibility check, the open call proposers will fill in a template supplied by the project and meet with the facility of interest and discuss the feasibility of the extension/experiments on this facility. Each facility will organize feasibility checks during regular intervals, and each proposing party must therefore contact the IMAGINE-B5G (imagine-b5g-opencall@iteam.upv.es) with the main idea of the proposal and the facility of interest and sign up for a feasibility check session.

The meetings with the facilities will be arranged as a first come first serve basis; therefore, we encourage the proposers to get in touch well in advance of this deadline. After the feasibility check meeting, the facilities will provide feedback to the proposers, which must be copied into Section F of the proposal template. If a feasibility check is not carried out, the proposal will be deemed ineligible during the evaluation process.

The deadline for the feasibility check is **15th of May, 2024**.

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[9] Please download from https://imagine-b5g.eu/2nd-open/

10.   Criteria for Evaluation

The evaluation of proposals will be carried out by the IMAGINE-B5G FSTP Evaluation Board, which is composed by a group of internal and external experts to ensure scientific excellence, transparency, and non-conflict of interest. All submitted proposals will be evaluated using criteria similar to Horizon Europe by at least three evaluators one of which will be external. All evaluators will be asked to sign a non-conflict of interest agreement, to ensure selection process independency. The recruitment of the evaluators will also follow an OC process to ensure full transparency. While forming the Evaluation Board, we will pay extra attention to have the board with a broad range of experience on the specific topics addressed by the call. The evaluation criteria have been defined:

- **Excellence (0 to 5 points):** Proposals must demonstrate a clear set of objectives aligned with the definition of the IMAGINE-B5G Call and with the general objectives of the project. The experiment should be scientifically and/or technically sound. For vertical experiments, there should be a clear problem statement a solid experiment design, and a good methodology. For platform extensions, the applicant should clearly indicate the usefulness and feasibility of the extensions. The applicant should exhibit prior research/development experience and the necessary qualifications to perform the vertical experiment or implement platform SW/HW extensions. The *Excellence* is evaluated according to the following criteria: *(i)* Clarity and pertinence of the objectives; *(ii)* Excellence, innovation, and quality of the objectives and the methodology. **Minimum score to pass the evaluation: 3.**

- **Impact (0 to 5 points):** Proposals must define a clear set of deliverables aligned with the objectives of the call. Proposals must demonstrate adequate impact on the IMAGINE-B5G ecosystem and its contribution to meeting the overall objectives of IMAGINE-B5G project. For scientific impact of vertical experiments, the score reflects the extent to which the broader scientific community can benefit from the proposed solution or the extension. For the industrial impact of vertical experiments, the score reflects the potential for exploiting the results of the experiment in commercial solutions. For platform extensions, the applicant should clearly indicate how the extensions complements the current IMAGINE-B5G platform. The *impact* is evaluated according to the following criteria: *(i)* Strengthening the competitiveness and growth of 6G by deploying a use-case and stimulating innovation/disruption that meet the needs of European and global markets; *(ii)* Effectiveness of the proposed measures to exploit and disseminate the funded project results, to overall communicate the project, and to manage research data where relevant. **Minimum score to pass the evaluation: 3.**

- **Implementation (0 to 5 points):** Proposals must provide credible evidence that the project delivery team has the necessary skills, resources, infrastructure, and management experience to be able to deliver the project in the timescales and budget specified. The quality and the efficiency of the implementation will be evaluated according to the following criteria: *(i)* Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources, justification of resources; *(ii)* Appropriateness of the skills and experience of the project delivery team. **Minimum score to pass the evaluation: 3.**

Minimum total score to pass the evaluation: 10.

Socio-economic and other relevant non-technical aspects will also be considered.

A number of top-ranked proposals will be selected to achieve the target budget of the call. IMAGINE-B5G targets to allocate at least 50% of the open-call budget to the SMEs, scaleups and start-ups. To reach this target, during the final selection and ranking of the proposals, two different ranking lists will be created: one for SMEs, scaleups and start-ups, and one for all the other projects. The budget then will be distributed to the top ranked projects (starting from the SMEs, scaleups and start-ups list) to the facilities based on the specified number of open call users each facility can support (see Table 2). To ensure a balanced portfolio covering as many strategic sectors as possible, grants will be awarded to proposals not only in order of ranking but also considering broad coverage of different sectors. The sectors that are not covered by higher ranked proposals can be prioritised given that the proposals for these sectors attain all required thresholds.