2nd Fed4FIRE+ Open Call - Experiments "SME Cascaded Experiments"

Call information:
- Project full name: **Fed4FIRE+: Federation for FIRE**
- Project grant agreement number: **732638**
- Call identifier: **F4Fp-02**
- Call title: **2nd Fed4FIRE Competitive Call - Innovative Experiments Category "SME Cascaded Experiments"**

Submission deadline Stage 1: 18 September 2017, at 17:00 Brussels local time

Submission deadline Stage 2: 12 December 2017, at 17:00 Brussels local time

Financial information:

- Total available funding for 2nd Open Call:
  - Stage 1: € 187 500 (max. 15 experiments)
  - Stage 2: € 330 000 (max. 6 experiments)

- Maximum requested funding per experiment:
  - Stage 1 : € 12 500
  - Stage 2 : € 55 000

- The above mentioned amounts include the budget for the Fed4FIRE+ partner(s) acting as Patron for the experiment:
  - Stage 1: max. € 2 500 per experiment
  - Stage 2: max. € 5 000 per experiment

The proposer:
- Proposals will only be accepted from a single party eligible for participation in the EC H2020-projects
- Proposals will only be accepted from a parties which did NOT submit any proposal in Fed4FIRE+ Open Call 1
- Can only be selected for funding for one proposal (even if the proposer submitted multiple proposals that are ranked high enough to be selected for funding)

Detailed information about the open call and its aspects can be retrieved online (**www.fed4fire.eu)**

Language in which the proposal must be submitted: English

Contact: contact@fed4fire.eu

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2 Introduction to Fed4FIRE+

Fed4FIRE+ is a Research and Innovation Action under the European Horizon 2020 Programme addressing the work programme topic Future Internet Research and Experimentation. The project started on 01 January 2017 and runs for 60 months, until the end of 2021.

The Fed4FIRE+ project has the objective to run and further improve Fed4FIRE's "best-in-town" federation of experimentation facilities for the Future Internet Research and Experimentation initiative. Federating a heterogeneous set of facilities covering technologies ranging from wireless, wired, cloud services and open flow, and making them accessible through common frameworks and tools suddenly opens new possibilities, supporting a broad range of experimenter communities covering a wide variety of Internet infrastructures, services and applications.

Fed4FIRE+ continuously upgrades and improves the facilities and include technical innovations, focused towards increased user satisfaction (user-friendly tools, privacy-oriented data management, testbed SLA and reputation, experiment reproducibility, service-level experiment orchestration, federation ontologies, etc.). It will open this federation to the whole community and beyond, for experimentation by industry and research organisations, through the organization of Open Calls and Open Access mechanisms

The project also offers a flexible, demand-driven framework which allows test facilities to join during the course of its lifetime by defining a set of entry requirements for new facilities to join and to comply with the federation.

Fed4FIRE+ also continues to build on the existing community of experimenters, testbeds and tool developers and bring them together regularly (two times a year) in engineering conferences to have maximal interaction between the different stakeholders involved.

An overview of the available FIRE facilities offered through Fed4FIRE+ can be retrieved at the [facility overview page on the Fed4FIRE website](#)[1]. Additional background information about both the offered facilities, the tools adopted by the federation, and the implementation steps needed from a facility when joining the federation can also be found in [the Fed4FIRE training material](#)[2].

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[1] https://www.fed4fire.eu/testbeds/
[2] http://doc.fed4fire.eu/

3 Objectives of the call

The major objective of this Open Call is to make the federated infrastructure directly available for execution of innovative experiments by experimenters from SMEs with a limited amount of effort in preparing the proposals and increasing the quality of the experiments.

While previous Open Calls worked in a 1-stage scenario, the purpose of this 2nd Fed4FIRE+ Open Call is to work with a staged proposal submission process:

1) Stage 1: the SME experimenter submits a 3-page proposal after consultation with the required testbeds. These proposals are reviewed by external reviewers and a selection of up to 15 proposals is made. The selected experiments receive a budget of max. 10 000 euro (SME experimenter) and of max. 2 500 euro (for the testbed) to prepare for the next stage.

2) Stage 2: proposals selected after Stage 1 are elaborated more in detail together with the testbeds, which will be used in the testbed and are submitted for review. Only proposals selected in Stage 1 are admitted. External reviewers make a selection of max. up to 6 experiments to be funded. Selected experiments receive a budget of max. up to 50 000 euro (SME experimenter) and of max. 5 000 euro (for the testbed) to execute the experiment.

The experiments submitted in Stage 1 are innovative experiments with a limited time in order to collect information on feasibility, requirements, challenges,.. to prepare for the 2nd stage. The experiments submitted in the 2nd stage are proposals for more extensive innovative experiments which are built upon the proposals and experiments run after selection in the 1st stage.

Examples of such experiments may include but are not limited to testing of new protocols or algorithms, performance measurements, service experiments. It is required that these experimenters will come from parties or organisations that are not part of the Fed4FIRE+ project consortium and which have NOT submitted any proposal yet in the previous Open Calls of the Fed4FIRE+ project. Parties which have submitted proposals in Open Calls from other projects are eligible.

The Fed4FIRE+ project is issuing this series of open and competitive calls for experiments with a degree of industrial and/or scientific innovation, relevance for the Fed4FIRE+ federation and an appropriate scale of complexity. Independent evaluations of the submitted proposals will be performed, in order to select experiments which will be executed within the project. It is required that the experiments are performed by a single organization.

This 2nd Open Call targets only experiments originating from SME's:

In both stages, external reviewers will evaluate proposals and selection of up to 15 proposals in Stage 1 and up to 6 proposals in Stage 2 will be made upon ranking of the proposals after review.

Benefits for an experimenter to propose experiments on the Fed4FIRE federation of testbeds:

- Possibility to perform experiments that break the boundaries of different testbeds or domains (wireless, 5G, wired, OpenFlow, cloud computing, smart cities, services, etc.)

- Easily access all the required resources with a single account.

- Focus on your core task of experimentation, instead of on practical aspects such as learning to work with different tools for each testbed, requesting accounts on each testbed separately, etc.

- An extra benefit which is offered in this call is the
  - 2-stage approach with a minimum effort in Stage 1
  - A dedicated support from specific Fed4FIRE members. Each proposer, preparing a proposal is required to seek a supporting Fed4FIRE consortium partner or partners (the "Patron") that will be in charge of dedicated (advanced) support of the experiment.
  - A limited budget available for running small experiments in preparation of the Stage 2 proposal submission

4 Inclusion into the consortium

Once a party is selected to perform the proposed experiment, it will be contracted by the project coordinator (imec) as a 3rd Party receiving financial support. This will require the signature of the Agreement of which can be found as download on the Fed4FIRE+ website together with this Call information.

5 Participation in meetings and submission of reports

5.1 Submission of reports (templates can be found as download on the Fed4FIRE+ website together with this Call information):

The proposer will need, if its experiment is:

- Selected for funding in Stage 1:
  - o to submit a report as part of the proposal submitted to Stage 2

- Selected for funding in Stage 2:
  - o To submit a report at the end of the experiment using the template in Annex 2 to this document.
  - o To prepare a Poster (A1-format) describing the objective and results of the experiment as well as the impact of the experiment on the proposers' business. This poster can be used by the Fed4FIRE+ consortium at public events and will be used at the occasion of the review meetings.
  - o To prepare a flyer (2 A4-pages) describing the objective and results of the experiment as well as the impact of the experiment on the proposers' business. This flyer can be used by the Fed4FIRE+ consortium at public events.
  - o To prepare a presentation and demo explaining and illustrating:
    - ▪ the objective and results of the experiment
    - ▪ the impact of the experiment on the proposers' business.
    - ▪ The feedback towards the Fed4FIRE+ consortium on the use of the facilities
  - o The production of a short video about the experiment is recommended. This video will be used by the Fed4FIRE+ project at public events.

5.2 Attendance at meetings

- The proposer will need to attend, if its experiment is:
  - o Selected for funding in Stage 1:

- FEC2 (October 4-6, 2017): Volos, Greece:
  - o To be attended by all selected experimenters
  - o Objective: attend tutorials and learn about Fed4FIRE+
  - o Discuss preparation of Stage 2 proposal with testbeds

- FEC3 (March 12-16, 2018 (tentative)): Paris
  - o To be attended by all experiments
  - o Objective: presentations by the finished experiments will serve as tutorials and demonstrations towards participants and new experiments attending the event.

- Formal review meeting (Belgium)
  - o A formal review meeting by EC representatives of all finished experiments will also be required. These formal review meetings will be organized according to the availability of the reviewers. In some cases these will be co-located with one of the FEC events but they can also be organized as separate meetings. It is therefore recommended to budget these as separate meetings in the proposal.

- Project meetings
  - o As the experimenter will be linked to the project as 3rd Party, there will no possibility to attend formal meetings of the consortium but specific (remote) meetings regarding the experiment can be set up with Fed4FIRE+ partners. The engineering conferences should be used to discuss face-to-face.

6 Targeted timing:

6.1 Stage 1

- Feasibility Check Deadline: 08 February 2017

  (draft proposal to Fed4FIRE partner(s) acting as Patron)

- Submission deadline: 18 September 2017
- Targeted acknowledgment of selection: 26 September 2017
- Attending FEC2 Tutorials: 4-6 October 2017
- Start of the experiment: October 2017
- End of the experiment   November 2017
- Submission of Report & Proposal for Stage 2:   12 December 2017

6.2 Stage 2

- Submission deadline: 12 December 2017
- Targeted acknowledgment of selection: 09 January 2018
- Start of the experiment: January 2018
- Attending FEC3:   12-16 March 2018 (tentative dates)
- End of the experiment   September 2018
-        (this includes the time needed for the final reporting)
- Submission of Report: September 2018
- Presentation at FEC4:   September / October 2018
- Attendance of formal review: Fall 2018 (Large Experiments)

  (eventually co-located with either FEC4,

  but to be budgeted as separate meeting)

7 Proposal template

The use of a specific proposal format as described in this section is mandatory. The template (can be found as download on the Fed4FIRE+ website together with this Call information) is limited in size and is focusing on "what experimenters want to do" and "what the expected result is".

7.1 Proposal template – Stage 1

Section A   Information page and Summary (200 word summary)
The information in this section may be used in public documents and reports by the Fed4FIRE consortium.

Section B   Description and Expected Results (target length 2 pages)
describing the details on the planned experiment (what do you hope to obtain, how, why is it relevant, how this prepares to a Stage 2 proposal). This section should also include all information with respect to the State-of-the-Art to show the innovative character of the experiment and the expected business impact

Section C   Requested Fed4FIRE+ tools, testbeds and facilities (1 page, standard form)
The information in this section needs to be collected in collaboration with the Fed4FIRE partner acting as patron on this experiment. For this section a specific format needs to be used, which is attached to this document and available for download.

Section D   Compliance check (max. 1 page, standard form to be provided by the Fed4FIRE+ Patron)
This section contains the formal statement of the Fed4FIRE+ partner(s) acting as patron on this experiment that he/she has been informed about your proposed experiment and that he agrees that it can be carried out on the required testbed(s).

Section E   Background and qualifications (target length 1 page)
This section describes the proposing experimenters and includes an overview of the activities, your qualifications, technical expertise and other information to allow the reviewers to judge your ability to carry out the experiment.

Section F   Expected feedback to the Fed4FIRE+ Consortium (target length 1 page)
This section contains valuable information for the Fed4FIRE consortium and should indicate the expected feedback the Fed4FIRE consortium can expect form the use of its federated facilities after carrying out your experiment. This information is essential in view of the sustainability of the facilities and use of tools and procedures. Note that the production of this feedback is one of the key motivations for the existence of the Fed4FIRE open calls.

Section G   Requested funding (0.5 page. standard form).
This section provides an overview of the budgeted costs and the requested funding. A split is made in personnel costs, other direct costs (travel, consumables,..) and indirect costs (see section 6). This section also includes the split between the budget allocated to the experimenter and the budget allocated to the Patron(s), clearly argumenting this split (max. €2 500 in total for the patron(s) in Stage 1). It is thus possible to have e.g. one patron providing specific testbed resources and setup for €1 500 and another patron offering consulting help for €1 000 for the same experiment.

7.2   Proposal template – Stage 2

Section A   Information page and Summary (300 word summary)
The information in this section may be used in public documents and reports by the Fed4FIRE consortium.

Section B   Detailed Description and Expected Results (target length 6 pages)
describing:
- the details on the results of the experiment carried out in Stage 1 and
- the details on the planned experiment (what do you hope to obtain, how, why is it relevant).

This section should also include all information with respect to the State-of-the-Art to show the innovative character of the experiment and the expected business impact

Section C   Requested Fed4FIRE+ tools, testbeds and facilities (1 page, standard form)
The information in this section needs to be collected in collaboration with the Fed4FIRE partner acting as patron on this experiment. For this section a specific format needs to be used, which is attached to this document and available for download.

Section D   Compliance check (max. 1 page, standard form to be provided by the Fed4FIRE+ Patron)
This section contains the formal statement of the Fed4FIRE+ partner(s) acting as patron on this experiment that he/she has been informed about your proposed experiment and that he agrees that it can be carried out on the required testbed(s).

Section E   Background and qualifications (target length 1 page)
This section describes the proposing experimenters and includes an overview of the activities, your qualifications, technical expertise and other information to allow the reviewers to judge your ability to carry out the experiment. This section can be copied from the Stage 1 proposal.

Section F   Expected feedback to the Fed4FIRE+ Consortium (target length 1-2 pages)
This section is an updated and more elaborated version of Section F of the Stage 1 proposal. It contains valuable information for the Fed4FIRE consortium and should indicate the expected feedback the Fed4FIRE consortium can expect form the use of its federated facilities after carrying out your experiment. This information is essential in view of the sustainability of the facilities and use of tools and procedures. Note that the production of this feedback is one of the key motivations for the existence of the Fed4FIRE open calls.

Section G   Requested funding (1 page).
This section provides an overview of the budgeted costs and the requested funding. A split is made in personnel costs, other direct costs (travel, consumables,..) and indirect costs (see section 0). This section also includes the split between the budget allocated to the experimenter and the budget allocated to the Patron(s), clearly arguing this split (max. €5 000 in total for the patron(s) in Stage 2). It is thus possible to have e.g. one patron providing specific testbed resources and setup for €1 500 and another patron offering consulting help for €3 500 for the same experiment.

Section H   Participation in previous Open Calls of the Fed4FIRE+ project.
This section provides information on previous participation in Open Calls of the Fed4FIRE+ project:

- Parties who have submitted proposals in the Fed4FIRE+ Open Call 1 are NOT eligible

- Parties belonging to a legal entity of which other groups have submitted proposals in previous calls also need to indicate the difference between the current proposal and the previously submitted proposals.

Section I   Survey.
This survey contains a list of specific requirements which you expect your experiment has for our federated testbeds. This survey will be done through a specific template which will become available on-line. This survey is an integral part of your proposal. Proposing parties who do not complete this survey by the set deadline are not eligible for evaluation.
The survey responses will remain within the Fed4FIRE consortium and will be used for reports and evaluation of the Fed4FIRE tools, testbeds and concept. The results will not be forwarded to the reviewers and will consequently not influence the scoring of your proposal during the evaluation process.

8 Support during experiment and the role of the Patron

Experimenters in this open call category have access to basic and advanced support:

A. Basic support

- Guaranteeing that the facility is up and running (e.g. answering/solving "could it be that server X is down?")
- Providing pointers to documentation on how the facility can be used (e.g. "how to use the virtual wall testbed" => answer: check out our tutorial online at page x")
- Providing pointers to technical questions as far as relevant (e.g. answering "do you know how I could change the WiFi channel" => answer: yes, it is described on following page: y"; irrelevant questions are for example "how to copy a directory under Linux")
- This support will be handled through the support forum detailed at http://doc.fed4fire.eu/support.html

B. Dedicated (advanced) support includes all of the following supporting activities by the patron:

- Deeper study of the problem of the experimenter: invest effort to fully understand what their goals are, suggest (alternative) ways to reach their goals. To put it more concretely (again using the example of the Virtual Wall testbed), these experimenters do not need to know the details on the Virtual Wall or how it should be used, they will be told what is relevant to them and can focus on their problem, not on how to solve it.
- Help with setting up the experiments (e.g. "how to use the virtual wall" => answer: the tutorial is there, but let me show you how what is relevant for you, let me sit together with you while going through this example and let us then also make (together) an experiment description that matches what you are trying to do.
- (Joint) solving of practical technical problems (e.g. "do you know how I could change the WiFi channel" => yes, it is described on page y, in your case you could implement this as following: ..., perhaps we should quickly make a script that helps you to do it more easily, ...)
- Custom modifications if needed: e.g. adding third-party hardware and preparing an API for this.
- Technical consultancy during/after the experiments (e.g. "I do get result x but would have expected y, what could be the problem?")

It is essential that you get in contact with the Fed4FIRE+ partner in charge of the testbed(s) you will use for your experiment to discuss your experiment and the specific requirements. Each proposing party must therefore contact the Fed4FIRE+ consortium regarding its submission to identify a possible Patron. The proposing party must submit its draft proposal to this Patron. The feedback by the Patron is provided in section D of the proposal.

The role and support by the Patron will be reflected in the budget (see section G of the proposal). At least one Patron is needed per experiment, but more are possible.

9   Budget & Payment scheme

As the experimenter will be linked to the Fed4FIRE+ consortium as 3rd Party receiving financial support, specific arrangements exist with respect to financial costs and payment schemes:

9.1   Compliance rules

- As a 3rd Party, the proposing party needs to include an overview of the estimated costs in its proposal at the time of submission. Costs consist of personnel costs, direct costs (such as travel, consumables, etc.) and indirect costs. The costs of a 3rd Party have to comply with the rules and the principles mentioned in Section I, Article 6 (Eligible and ineligible costs) of the H2020 AGA — Annotated Model Grant Agreement (see http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf), in the same way as the beneficiaries, and must be recorded in the accounts of the 3rd Party. In other words, the rules relating to eligibility of costs, identification of direct and indirect costs and upper funding limits apply. Equally those concerning controls and audits of Section I, Article 22 of the H2020 AGA.

9.2   Budget

- The maximum requested funding for each experiment in this Call is set at:
    - 12.5k euro for Stage 1 and
    - 55 k euro for Stage 2

- The budget covers the costs for:
    - the experimenter including the costs for:
        - getting acquainted with the testbed
        - executing the experiment
        - reporting feedback about the federation framework
        - submitting the required documents
        - attending the required meetings (travel)
    - the Fed4FIRE+ partner(s) acting as Patron(s) including the costs for:
        - supporting the proposer during the preparation and execution of the experiment
        - specific adaptation of the testbed to run the experiment
        - providing feedback and quality-check on the submitted reports and materials by the experimenter.

- The budget can be split in a flexible way between the experimenter and the Patron but the split needs to be provided and argumented in the proposal (with a max. total of €2 500 for the patron(s) in Stage 1 and a max. total of €5 000 in Stage 2)

9.3   Submission of invoices

- The proposer will need, if its experiment is selected for funding:

- To submit an invoice for 75% of the budget allocated to the 3rd Party which will be paid by imec as coordinator upon an approval of the report by the Fed4FIRE+ consortium.

- To submit an invoice for 25% of the budget allocated to the 3rd Party which will be paid by imec as coordinator upon receiving a positive evaluation report by the EU appointed reviewers following a formal review by the EU representatives.

- Payments to the Fed4FIRE+ partner acting as Patron will be made internally within the consortium.

10 Access to Foreground information from the project

As indicated by the EC Guidelines, a 3rd Party is paid in full for its contribution made to a project by the coordinator. As a consequence 3rd Parties do not have any IPR rights on the foreground of the project.

10 Access to Foreground information from the project

11 Reporting

As the experimenter will be linked to the Fed4FIRE+ consortium as 3rd Party receiving financial support, no input will be required for any of the regular project reports which the Fed4FIRE+ consortium needs to submit to the EU.

A final report needs to be submitted after conclusion of the experiment. A specific template needs to be used (can be found as download on the Fed4FIRE+ website together with this Call information) and will include:

11.1 Stage 1 Reporting

Stage 1 reporting is covered through the preparation and submission of the Stage 2 proposal. No separate template or report needs to be submitted. In case the experimenter decides not to submit a Stage 2 proposal, the template for Stage 2 proposal preparation cab be used and should include a statement why there is no need for Stage 2 proposal submission.

11.2 Stage 2 Reporting

Part A.   Summary

Part B.   Detailed description
This section describes the details on the experiment and provides information as you have been collecting this from your point of view and from your business. It includes:
B.1   Concept, Objectives, Set-up and Background
B.2   Technical Results & Lessons learned
B.3   Business impact

Part C.   Feedback to Fed4FIRE
This section contains valuable information for the Fed4FIRE consortium and describes your experiences by running your experiment on the available testbeds. Note that the production of this feedback is one of the key motivations for the existence of the Fed4FIRE open calls. It includes:
C.1   Resources & tools used
C.2   Feedback based on design/set-up/running your experiment on Fed4FIRE
C.3   Why Fed4FIRE was useful to you

This report will not only serve as an evaluation tool to judge payment of the experimenter, but will mainly serve as input to the Fed4FIRE sustainability plans, evaluation of the user-friendliness of the Fed4FIRE tools and identification of missing gaps in both testbeds and tools.

Part of this report may be used by the Fed4FIRE+ consortium for inclusion in their reporting documents to the EU and in public presentations. Inclusion of confidential information should therefore be indicated and discussed with the Fed4FIRE+ consortium.

This report will also be used for the formal review by the European Commission.

12 Criteria for evaluation and ranking of experiments

Proposals can only be submitted by:

- Parties eligible for participation in the EC H2020 Programme

- Single parties (no consortia are allowed)

- Multiple proposals may be submitted by the same party, however in case multiple proposals are submitted reference should be made to each submitted proposal and clear indication should be given on the complementarity of the proposals.

Evaluation and ranking will be carried out by an external review panel. Selection will mainly be based upon:

Proposals for experiments have to demonstrate:

Criteria I. A degree of industrial and/or scientific innovation including a motivation for the experiment. (**Error! Reference source not found.** of the Proposal Template) The score given here should reflect the degree of innovation: if an experiment is pushing the boundaries of its domain, then it should get a higher score here then experiments testing trivial things. In order to demonstrate these criteria, the proposer may opt to indicate the State of the Art in the appropriate field.

Criteria II. A degree of industrial and/or scientific relevance (**Error! Reference source not found.** of the Proposal Template) This score should reflect the industrial relevance including the expected and projected impact on the experimenter through product development or the scientific relevance and the projected impact on the organisation

Criteria III. Clarity and methodology (**Error! Reference source not found.** of the Proposal Template) The experiment should be scientifically and/or technically sound. There should be a clear problem statement, a solid experiment design, a good methodology, etc.

Criteria IV. An appropriate scale and complexity of experiment in respect to its implementation and execution in the scope of Fed4FIRE and defined time frame (**Error! Reference source not found.** of the Proposal Template) Use of only a single testbed is acceptable, but multi-testbed experiments are preferred. No distinction is made between achieving this by running the same experiment in sequence on multiple testbeds (e.g. to evaluate different wireless environments), or by running a single experiment that relies on resources from different testbed at the same time. If however proposals have made their design artificially more complex than needed just in order to use multiple testbeds, then the score will be lower. Similarly, if proposals have made their designs too trivial while you can easily identify opportunities for involving other testbeds that would have made the experiment stronger, then the score will also be lower. In order to optimise the design of the experiment, the proposer should seek information on the available testbeds.

Criteria V. Relevance for Fed4FIRE framework in terms of planned facility and tools utilization and potential feedback to the project on their usage (**Error!**

Reference source not found. of the Proposal Template)
The Fed4FIRE consortium is seeking feedback regarding the available tools, procedures and testbeds. Proposals which can indicate that more information and feedback on the use of these tools and procedures will be provided will get a higher score. So the more of the Fed4FIRE tools and APIs that an experiment will use, the better. If they need to use additional non-Fed4FIRE tools, that is not a problem as long as they clearly indicate the added value of these additional tools.

Criteria VI. Indication on possible future follow-up experiments and how this can support the sustainability of the federated testbed facilities. (**Error! Reference source not found.** of the Proposal Template).
The proposer may indicate possible follow-up projects and experiments which can contribute to the sustainability of the Fed4FIRE facilities. The quality, the size and the expected feasibility to carry out these future experiments will be reflected by the score in this criterium.

Criteria VII. The proposer should exhibit technological expertise and quality. This information must be included in **Error! Reference source not found.** of the Proposal Template.

Amongst all above listed criteria, Criteria I, II and V will be weighted higher.

The proposed experiment must be executed on the available Fed4FIRE+ testbeds. This competitive call allows for both experiments using multiple testbeds (in parallel and/or in sequence) and experiments using a single testbed. Information about the current Fed4FIRE testbeds is available at the dedicated pages[1]. The proposed experiment must use the experimentation tools provided by Fed4FIRE+ in order to provide feedback to the project about their usefulness and maturity in a final report. In justified cases additional external tools may be used.