Collaborative 5GINFIRE Open Call

"Innovative experiments"

Call information:

Call identifier: **5ginfire-c** – 5GINFIRE Collaborative Open Call "Innovative experiments"

Submission deadline: 3 July 2019 at 17:00 Brussels local time

Feasibility check[1] deadline: 30 June 2019

Call objectives:

In alignment with the overall project objectives, the 5GINFIRE project is organising a collaborative open call targeting external organisations, including industry, SMEs, research institutions, and academia, interested in performing experiments on the top of the infrastructure provided by 5GinFIRE. This 5GinFIRE open call invites **experimenters** to use the 5GINFIRE experimental facilities, taking advantage of the provided testbed features such as SDN, NFV, and VxFs to test vertical applications and other services in context of the 5G networks.

Available 5GINFIRE testbeds:

For this open call, beside the available experimenter tools, the following 5GINFIRE infrastructures can be used:

- WINS 5G
- PPDR ONE
- Media 5G,
- 5TONIC
- University of Bristol 5G testbed

The 5GINFIRE experimental facilities - the available testbeds / infrastructures and experimenters tools - are described on the 5GINFIRE website (https://5ginfire.eu/).

[1] The proposers can contact the 5GINFIRE consortium (at contact@5ginfire.eu) and elaborate their intentions in order to verify the feasibility of the proposals to be implemented in the scope of the 5GINFIRE project and to receive a first feedback on in the proposal planned activities, before submitting the full proposal.

Funding:

- There is **no funding** from 5GINFIRE or EC **for experimenters** participating in this open call. Therefore, the experimenters have to ensure the necessary resources to perform proposed experiments, if accepted, in collaboration with the 5GINFIRE team
- The 5GINFIRE testbed, used for experimentation, will provide necessary support for experimenters – subject of resources availability

Further remarks:

- Proposals will only be accepted from a single party eligible for participation in EC H2020-projects.
- There is no minimum or maximum number of experiments defined for acceptance in this open call
- The proposal has to be submitted in English language through the 5GINFIRE submission tool by using specific proposal template (mandatory). Access to the submission toll and proposal templates is available on the 5GINFIRE website https://5ginfire.eu/).

Awards:

- The best experiments from the open call will be awarded by web presence on the 5GINFIRE project website
- The best experiment will be invited to participate and talk at the Final 5GINFIRE Workshop

Contact: contact@5GinFIRE.eu

The contact e-mail address is archived.

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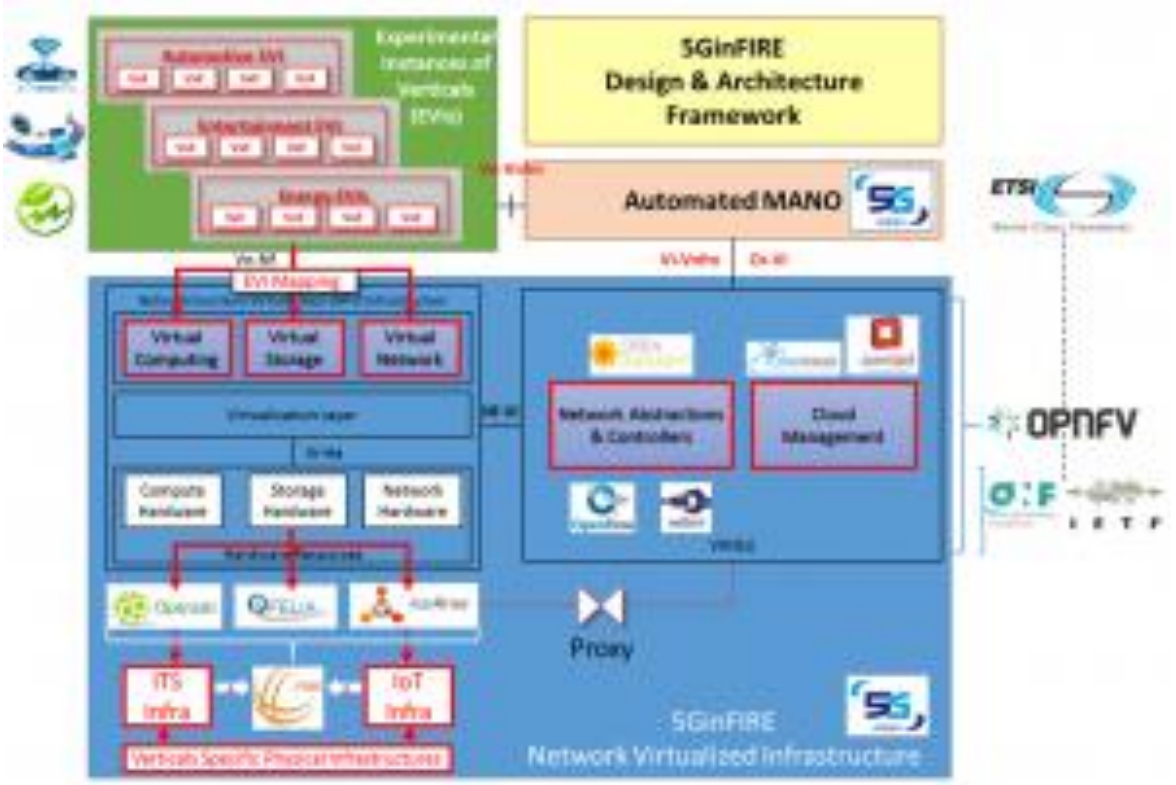
1 About 5GINFIRE

5G network infrastructures and embodied technologies are considered as a key asset of this emerging common environment and instrumental for the digitalization of the traditional industries, so-called vertical industry application sectors. Addressing these key questions, the main 5GINFIRE goal is to build and operate an open, and extensible 5G NFV-based reference (Open5G-NFV) ecosystem of experimental facilities that not only integrates existing FIRE facilities with new vertical-specific ones but also lays down the foundations for instantiating fully softwarised architectures of vertical industries and experimenting with them. The initial instantiation of the Open5G-NFV ecosystem will be driven by the automotive vertical deployed across state-of-the-art 5G infrastructures, however, it will also be as generic as possible in order to host other verticals.

In order to offer its testbeds to a wide community of experimenters, the 5GINFIRE project will organize at least two open calls for experiments to be implemented and executed on the top of the 5GINFIRE experimental infrastructure. Furthermore, the 5GINFIRE open calls will also seek for further relevant testbeds to be integrated within the 5GINFIRE experimental framework and offered to be used by the experimenters.

1.1 5GINFIRE objectives

The 5GINFIRE is, by design, a duality project that sets its overall technical objectives as a prerequisite for achieving a longer term strategic objective that aspires to resonate beyond its lifetime and act as valuable source of constant feedback. As such, it is indeed quite ambitious but at the same time pragmatic and feasible in identifying, building, and eventually specifying, a critical mass of technological components and optimal architecture designs.



5GINFIRE Reference Model Architecture

In order to guarantee architectural and technological convergence the proposed open, and extensible 5G NFV-based reference (Open5G-NFV) ecosystem of experimental facilities will be built in alignment with on-going standardization and open source activities, also targeted by other closely related programme activities such as FIWARE and 5G-PPP to name a few. Accordingly, the Open5G-NFV FIRE ecosystem may serve as the forerunner experimental playground wherein new components, architecture designs and APIs may be tried and proposed before they are ported to more industrially "mainstream" 5G networks that are expected to emerge in large scale.

Accordingly, the specific 5GINFIRE project objectives are defined as follows:

- Establish the first 5G NFV-enabled experimental testbed capable of instantiating and supporting vertical industries based on industry-leading and open source technologies
- Specify Implement and Operate Verticals drawn from the Automotive Industry on top of the Open5G-NFV common experimental facility.
- Provide a platform for innovation in Europe specifically suitable for SMEs
- Develop open source Management and Orchestration (MANO) functionality and toolsets for experimental architecture instantiation featuring automation of deployment process, orchestration and lifecycle management aiming at enabling truly Open Experimentation that fosters innovation.
- Enable in-testbed and extra-testbed demonstrations in an open reference platform
- Open software and APIs for rapid prototyping and inclusion of new building block functionalities with the necessary metadata definition
- Accelerate the formation of an open European-initiated, global-reach, long-term sustainable community and liaise with other relevant initiatives to further the goals of this project.

2 Open Call definition

2.1 Technical scope of the Call

In this Open Call, the 5GINFIRE is looking for experiments to use the 5GINFIRE experimentation facilities, taking advantage of the provided testbed features such as SDN applications, VNFs and VxFs to test vertical applications. Priority will be given to experimenters that provide additional functionalities (VNFs, VxFs, …) needed for the experimentation, which can remain in 5GINFIRE catalogue.

Just for an example, Core Network VNFs like open source PCRF (Policy and Charging Rules Function) or probes (potentially based on Wireshark but with dedicated plugins and the ability to be deployed through OSM) are expected but also VxFs which would be more at application level like a webRTC based video conferencing system or to support any further application in the automotive sector.

Examples of recently implemented experiments in 5GINFIRE can be found on the project website (https://5ginfire.eu/).

2.2 Evaluations and ranking of the proposals

To perform evaluations of the received proposals, the project will involve experts from the consortium, in particular from organizations hosting the addressed testbeds. The evaluations will be done in accordance with requirements and objectives specified in the Open Call, along the following three criteria:

- Impact (threshold = 3 / weight 2): societal and economic value of the targeted product/service
- Innovation and technology (threshold = 3 / weight 2): innovativeness and technological value of the proposal
- Implementation (threshold = 3 / weight 1): quality of methodology and of proposed participants

During the evaluation phase, the proposers might be contacted by the 5GINFIRE representatives to provide further clarification about the proposed experiments. The last step in the evaluation process will be to create ranking among all received proposals and select experiments for implementation in 5GINFIRE.

Evaluation of the received proposals, ranking, and decision on proposals to be implemented will be completed until 15 July 2019.

3 Participation of successful proposals in 5GINFIRE

3.1 Formal agreements

Once a proposal is selected, the proposer organization will be need to conclude an agreement with the project coordinator (Eurescom) and organizations hosting the used testbeds. The agreement will simply clarify time line of the experimentation, IPR, and liability issues as well as will be based on the submitted experiment proposal.

The experimenters will have to acknowledge the 5GINFIRE project while presenting results achieved by using its experimental facilities and will need to formally accept Terms and Conditions for using the selected testbeds in accordance with the standard rules and practices adopted by the testbed providers' organizations.

3.2 Timing for implementation

The experiments accepted in this Open Call will start the planned work in August 2019 and should be completed latest in December 2019.

3.3 Participation at meetings

The accepted proposers will be invited to attend project meetings (kick-off meeting and consultation on experiment status) in Patras, Greece, during the week 9-13 September 2019 (max one day attendance needed, not mandatory).