
Annex 2:
Guide for Applicants
August 2021

© Copyright by the IoT-NGIN Consortium

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 957246



Disclaimer

This document may contain material that is copyright of certain IoT-NGIN beneficiaries and may not be reproduced or copied without permission. All IoT-NGIN partners have agreed to the full publication of this document. The commercial use of any information contained in this document may require a license from the proprietor of that information.

The IoT-NGIN Consortium is the following:

IoT-NGIN Consortium			
Participant Number	Participant organisation name	Short name	Country
1	Capgemini Technology Services	CAP	France
2	Atos Spain S.A.	ATOS	Spain
3	ERICSSON GmbH	EDD	Germany
4	ABB Oy	ABB	Finland
5	INTRASOFT International S.A.	INTRA	Luxemburg
6	Engineering-Ingegneria Informatica SPA	ENG	Italy
7	Bosch Sistemas de Frenado S.L.U.	BOSCH	Spain
8	ASM Terni SpA	ASM	Italy
9	Forum Virium Helsinki	FVH	Finland
10	Optimum Technologies Piroforikis S.A.	OPT	Greece
11	eBOS Technologies Ltd	EBOS	Cyprus
12	Privanova SAS	PRI	France
13	Synelixis Solutions S.A.	SYN	Greece
14	CUMUCORE Oy	CMC	Finland
15	Emotion s.r.l.	EMOT	Italy
16	AALTO-Korkeakoulusaatio	AALTO	Finland
17	i2CAT Foundation	I2CAT	Spain
18	Rheinisch-Westfälische Technische Hochschule Aachen	RWTH	Germany
19	Sorbonne Université	SU	France

The information in this document is provided "as is" and no guarantee or warranty is given that the information is fit for any particular purpose. The user thereof uses the information at its sole risk and liability. Moreover, it is clearly stated that the IoT-NGIN consortium reserves the right to update, amend or modify any part, section or detail of the document at any point in time without prior information.

The IoT-NGIN project, co-funded from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957246, foresees as an eligible activity the provision of financial support to third parties, as a mean to achieve its own objectives.

LEGAL NOTICE

The information and views set out in this application form are those of the author(s) and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained therein.

Funding Scheme: Research & Innovation Action (RIA) • Theme: H2020- ICT-56-2020
Start date of project: 01 October 2020 • Duration: 36 months

© IoT-NGIN Consortium, 2020

Reproduction is authorised provided the source is acknowledged.

Table of contents

Table of contents	3
List of Abbreviations and Acronyms	4
1 Introduction	5
1.1 Background information on IoT-NGIN project	5
1.2 IoT-NGIN Work Plan	8
1.3 IoT-NGIN approach & Funding Scheme	9
1.4 Timeline – Open Call #1.....	9
2 General information	10
2.1 Means of submission	10
2.2 Language.....	10
2.3 Documentation formats	10
2.4 Data protection	10
2.5 Origin of the funds.....	10
3 Proposal Eligibility Criteria.....	11
3.1 SME Definition.....	11
3.2 SME Eligibility Criteria	11
3.3 Proposal Eligibility Criteria	12
4 Open Call submission and selection process.....	13
4.1 Open Call Submission	13
4.1.1 Open Call publication	13
4.1.2 Applicants Registration	14
4.1.3 Proposal Preparation.....	14
4.1.4 Proposals reception.....	14
4.2 Evaluation Procedures.....	15
4.2.1 Step 1.1: Eligibility	15
4.2.2 Step 1.2: External remote evaluation	15
4.2.3 Step 1.3: Final Ranking and Selection	16
4.2.4 Step 1.4: Contract Preparation.....	17
4.2.5 Step 1.5: Contract Signature	18
4.2.6 Redress process	18
5 Responsibilities of beneficiaries	20
5.1 Participation to the IoT-NGIN project	20
5.2 Conflict of Interest.....	20
5.3 Data Protection & Confidentiality	20
5.4 Give visibility to the EU funding	21
5.5 Financial audits and controls.....	22
6 Checklist.....	24
7 Contacts	25
8 References	26

List of Abbreviations and Acronyms

AGV	Automated Guided Vehicles
AGLV	Automated Guided Land Vehicles
AR	Augmented Reality
AWU	Annual Work Unit
CET	Central European Time
DLT	Distributed Ledger Technology
DT	Digital Twin
EC	European Commission
EU	European Union
KPI	Key performance Indicator
GDP	Gross Domestic Product
M2M	Machine to Machine
MCM	Machine Cloud Machine
ML	Machine Learning
NGI	Next Generation Internet
PIC	Participant Identification Code
RTD	Research and Technological Development
SME	Small and Medium-sized enterprises
TRL	Technology Readiness Level
VAT	Value Added Tax

1 Introduction

The IoT-NGIN (Next Generation IoT as part of Next Generation Internet) is a project funded under the H2020 framework. Its strategic objective is to unleash the power of Next Generation IoT as an essential dimension of the Next Generation Internet (NGI) and become the “IoT Engine” that fuels that transition to an Intelligent Internet of Everything.

To enhance the public awareness and increase the IoT-NGIN community ecosystem, IoT-NGIN will organize 2 open calls. The objectives of the open calls are:

- a) to enhance IoT-NGIN with additional (HW/SW) solutions contributing in IoT-NGIN technology validation and User Acceptance evaluation with innovative Use Cases,
- b) to increase awareness and interest on IoT-NGIN technology and solutions,
- c) to motivate DIHs and clusters to promote and adopt IoT-NGIN technologies and
- d) to engage IoT device manufacturers and applications developers, stakeholders, decision makers to enter and make sustainable the IoT-NGIN ecosystem.

This document is Annex 2: “Guide for Applicants” for IoT-NGIN Open Call #1. It invites IoT devices manufacturers, embedded software and FPGA/soft core SMEs to join the IoT-NGIN consortium by offering a) open interfaces and access to their IoT systems or b) embed IoT-NGIN extensions and/or porting IoT software components to FPGA/soft core.

The funding for each new participant will be up to 150K€ and it is expected that at least 5 new partners will join the IoT-NGIN consortium via this open call. The new partners will have all the benefits and responsibilities of IoT-NGIN consortium members.

This document provides a full set of information regarding the Open Call #1 for Proposals for the IoT-NGIN project. Annex 1, Annex 3.1, Annex 4, Annex 5, Annex 6 and Annex 7 must also be considered for the submission of a Proposal.

1.1 Background information on IoT-NGIN project

It is well known that the Internet of Things (IoT) has been identified as one of the next big concepts to support societal changes and economic growth, and one of the fastest growing ICT segments. A whole new range of applications that leverage data and metadata from connected “things” provide novel human-centric services in areas such as smart city and urban mobility, human-centric industry 4.0, smart agriculture, and smart energy management. Within the IoT-NGIN (read as “IoT Engine”) project, we consider a “thing” as *any kind of sensor, actuator, wearable device, smart phone or autonomous system, such as autonomous guided vehicles (AGVs), robots or drones with networking capabilities*. We can consider as a “thing” even a group or swarm of things that behave as an autonomous, self-organised system.

In the evolving next generation IoT era, we consider that the biggest challenges are:

- a) to research towards **federated on-device intelligence**, so that the “things” react as self-aware, and when applicable user-aware/ human-centric, semi-autonomous entities, even when their resources are constrained or network connectivity is not reliable,
- b) to enforce **interoperability and data sovereignty**, overcoming scalability and fragmentation of vertically oriented, closed systems,
- c) to ensure **trust, cybersecurity and privacy** and
- d) to introduce **novel human-centric interaction** based on Augmented Reality (AR).

However, replacing existing IoT architectures and platforms with a new, one located at the edge cloud or at a logically higher level and translating or interpreting applications’ requests to existing platforms’ queries has significant limitations. Instead, we believe that it is important

not to “reinvent the wheel”, but to base our research on mature results and leverage on existing technologies, such as 5G communications, edge cloud computing, inter-DLTs and federated AI in order to go beyond today’s state of the art, perform research and create innovation that can be sustainable.

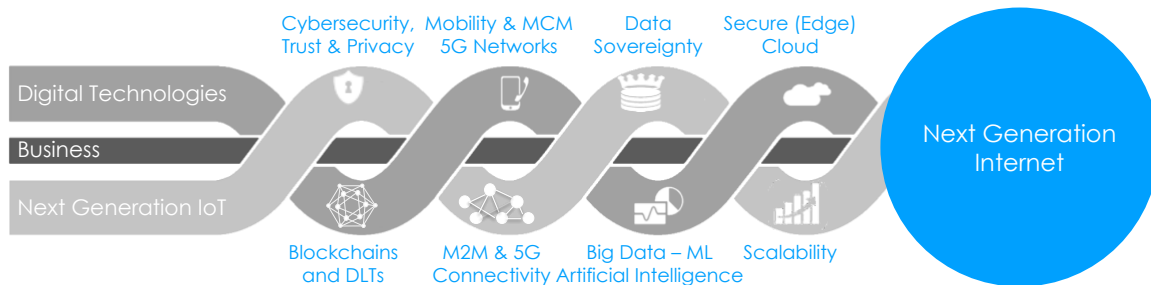


Figure 1: Next Generation IoT in the path towards Next Generation Internet

As shown in Figure 1, the main idea behind IoT-NGIN is **to research towards NGI by introducing key digital technologies such as Machine to Machine (M2M) and 5G Machine Cloud Machine (MCM) communication, cybersecurity and secure edge cloud framework, big data, federated ML/AI and blockchain/DLT transactions at “things” level**, so that it will be able to interact in an open and (semi-) autonomous way with any existing and forthcoming “thing” or IoT platform in a scalable and federated rather than integrated approach.

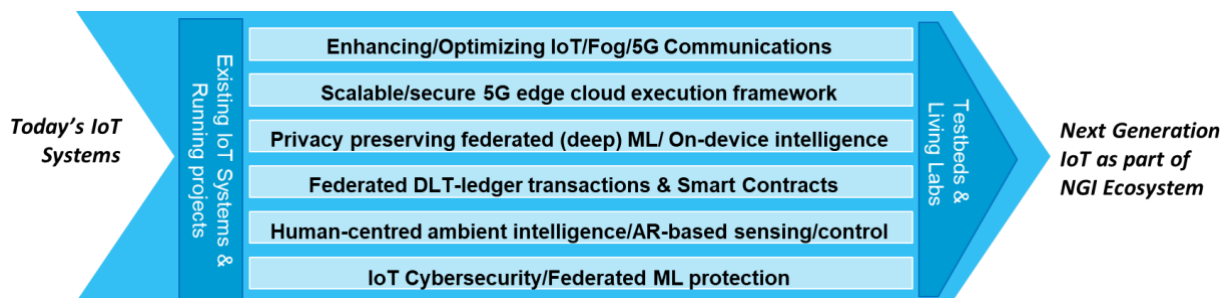


Figure 2: IoT-NGIN focus

Beyond networking, data sovereignty has recently emerged as a critical issue of personal, national and regional economic importance, as the ability to control the use of data is continually being eroded by global industries, such as social media platforms, and the data itself is becoming a product. Current IoT systems generate enormous volumes of data but they lack an association between the data and the identity or the role of those who have the authority to decide how the data is to be used. New techniques are required to store and process the data securely and ensure that the relevant data owners are able to control IoT data utilization in a secure, trusted and privacy preserving way. IoT-NGIN focus on various IoT related technologies including

- 5G New Radio & Edge Cloud connectivity
- Resource Self-Awareness & Dynamic Connectivity
- Cross Blockchains/DLT data sovereignty and Smart Contracts
- Federated ML/ Edge Cloud ML Aggregation
- Trained ML model sharing (e.g. AGV)
- Human Centric Ambient Intelligence/Augmented Reality based sensing/control
- IoT Cybersecurity/Attacks on Privacy preserving ML
- Privacy preserving Cross-Trial/ borders Federation

The IoT-NGIN outcomes will be validated across a multitude of real-life use cases through 7 trials, involving 5 living labs and 1 IoT/5G lab. The IoT-NGIN pilots and living labs are:

- Trial #1: IoT-NGIN Integration Infrastructure Technology Lab
- Trial #2: Human-Centred Twin Smart Cities Living Lab

- Trial #3: Smart Agriculture IoT Living Lab
- Trial #4 & Trial#5: Industry 4.0 Use Cases & Living Lab
- Trial #6: Smart Energy Grid Active Monitoring/Control Living Lab
- Trial #7: IoT-NGIN Technology and Living Labs Federation

Distributed throughout Europe as shown in Figure 5.

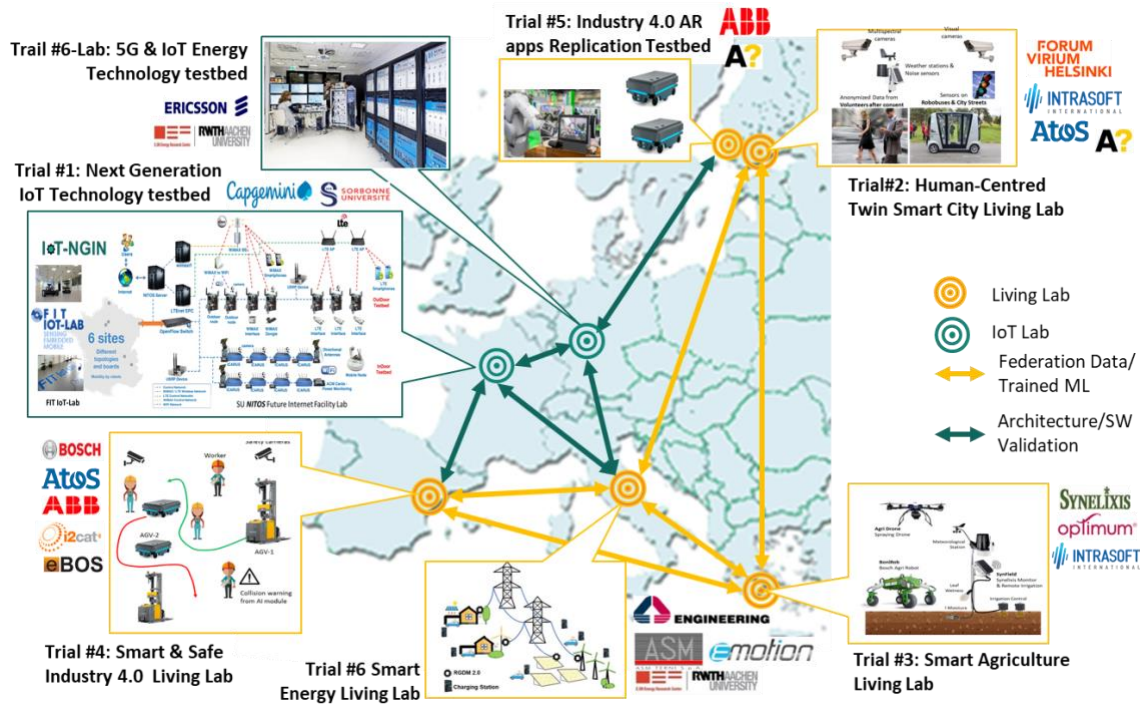


Figure 3: Trial #7: IoT-NGIN Technology & Living Labs Federation

Initial Use Case categories	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Trial 6	Trial 7
5G New Radio & Edge Cloud connectivity	✓	✓	✓	✓	✓	✓	✓
Resource Self-Awareness/Dynamic Connectivity	✓	✓	✓	✓	✓	✓	✓
Cross Blockchains/DLT data sovereignty		✓	✓		✓		✓
Federated ML/ Edge Cloud ML Aggregation		✓	✓	✓	✓	✓	✓
Trained ML model sharing (e.g. AGV/AGLV)			✓	✓			✓
Human Centric/AR applications Design		✓	✓		✓		✓
Cybersecurity attacks on Privacy preserving ML					✓	✓	✓
Privacy preserving Cross-Trial Federation							✓
3 rd Party Application Support	✓	✓	✓	✓	✓	✓	✓

More information is available at <https://iot-ngin.eu/>.

1.2 IoT-NGIN Work Plan

IoT-NGIN project is organized in 9 work packages as shown in Figure 4. **Error! Reference source not found..**

- **WP1** (duration M1-M34) identifies new requirements and refines the project use cases. It also defines a project benchmarking verification framework and analyzes the Data Privacy & GDPR requirements.
- **WP2** (duration M1-M30) focuses on “**Enhancing IoT Underlying Technology**” project strategy including the communications and dynamic management of 5G Resources.
- **WP3** (duration M1-M30) focuses on “**Enhancing IoT Intelligence**” project strategy, including the Machine Learning (ML) framework architecture and along with tools for secure sharing of ML models.
- **WP4** (duration M3-M31) focuses on “**Enhancing IoT Tactile & Contextual Sensing/Actuating**” project strategies and research towards enhancing IoT devices discovery, recognition and indexing.
- **WP5** (duration M3-M31) focuses on “**Enhancing IoT Cybersecurity & Data Privacy**” project strategies, including federated DLT- transactions and smart contracts.
- **WP6** (duration M6-M34) realizes the integration environment and offer continuous “**IoT-NGIN Platform Integration & Laboratory evaluation**” at the IoT-NGIN labs.
- **WP7** (duration M5-M36) performs **real Living Labs Validation and support 3rd parties via the Open Calls realization**. Moreover, it will perform cross-Living Labs experimentation, validate the IoT-NGIN results and define replication guidelines.
- **WP8** (duration M1-M36) ensures the **dissemination, exploitation and commercialization** of the results
- **WP9** (duration M1-M36) manages the project and coordinate the execution of the Open Calls including project selection and contracting.

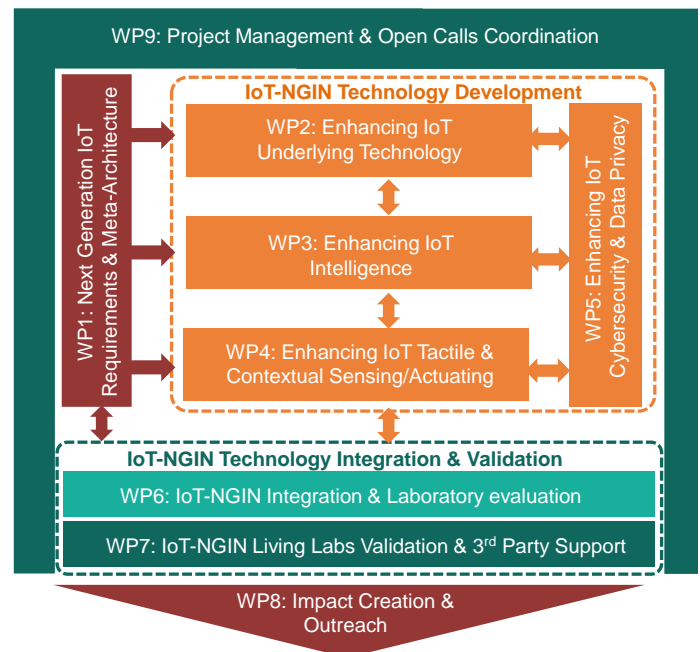


Figure 4: IoT-NGIN Work packages and Inter relationship

All selected technological components will be added in the relevant WP2-WP5 activities, integrated in WP6 and tested in WP7. Moreover, new beneficiaries will participate at the WP8 to realize the relevant impact creation activities.

It is important to note that according to the IoT-NGIN Consortium Agreement all new technological components will be offered as Open Source (HW/SW) under the proper Open Source License. All IoT-NGIN developments (existing and introduced via IoT-NGIN Open Call #1) will be utilized by the applicants/SMEs that will be invited via IoT-NGIN Open Call #2 to test and validate IoT-NGIN Technology.

1.3 IoT-NGIN approach & Funding Scheme

As already explained, IoT-NGIN will organize two open calls:

- Open Call #1 will select at least 5 new partners, who will join the IoT-NGIN consortium in M19 (April 2022). Open Call #1 targets IoT devices manufacturers, embedded software and FPGA/soft core SMEs to join the IoT-NGIN consortium by offering a) open interfaces and access to their IoT systems or b) embed IoT software components running on FPGA/soft cores.
- Open Call #2 will start at M28 (January 2023) and allowing new partners to enter the IoT-NGIN consortium and validate IoT-NGIN technology via innovative IoT applications and services that use heterogeneous IoT and IoT-NGIN components to offer new services for 9 months (1/1/2024 – 30/9/2023).

The selected partners will be funded as follows:

Table 1: New partners funding schema for Open Call #1

Funding %	Funding (in EUROS)	Condition / Event
75%	Up to 112.500€	After inclusion of the partner in IoT-NGIN Amended Grant Agreement and signature of the IoT-NGIN Consortium Agreement (estimated time M19/April 2022)
Up to 25 %	Up to 37.500€	After reporting of the actual costs, final review of the project and costs' acceptance of the Funded Authority (EC)*

*It should be noticed that:

- All payments to be made promptly after the coordinator receives the same from EC.
- The Coordinator is entitled to withhold any payments due to a Defaulting Party except the amount of contribution that the Funding Authority, after acceptance of reporting, decides to be provided to the Defaulting Party

1.4 Timeline – Open Call #1

Submission to the Open Call #1 will be enabled on the 1st of October 2021 and will end on the 30th of December 2021 at 17:00CET time (Brussels time). Below are presented the dates for the different phases. The opening and closing dates of each phase can be subject to change in case of any modifications in the project's schedule.

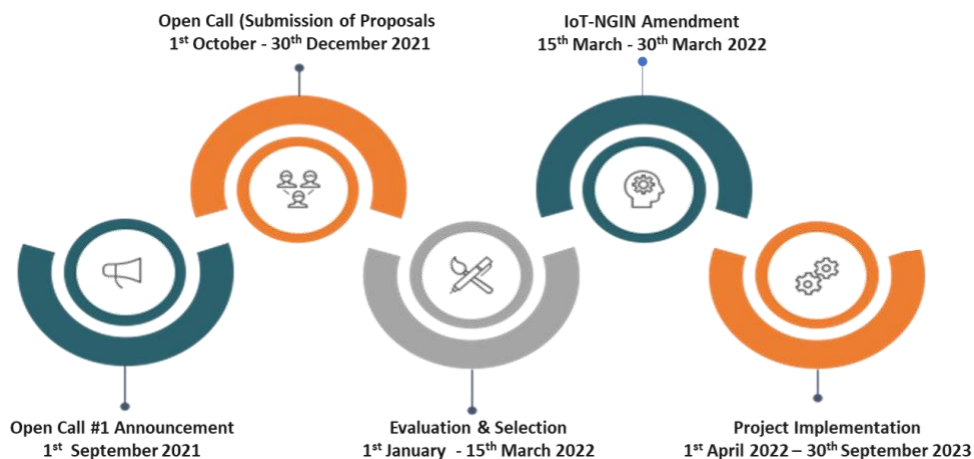


Figure 5: IoT-NGIN Open Call #1 timeline

2 General information

2.1 Means of submission

The F6S platform (<https://www.f6s.com/h2020-iot-ngin/>) will be the entry point for all proposals' submission to IoT-NGIN Open Calls. Submissions received by any other channel will be automatically discarded.

Documents required in subsequent phases will be submitted via dedicated channel, which will be indicated by IoT-NGIN consortium during the sub-granted projects execution.

2.2 Language

English is the official language for IoT-NGIN open calls. Submissions done in any other language will not be evaluated. English is also the only official language during the whole execution of the IoT-NGIN programme. This means any requested submission of deliverable will be done in English in order to be eligible.

2.3 Documentation formats

Any document must be submitted electronically in PDF format without restrictions for printing.

2.4 Data protection

In order to process and evaluate applications, IoT-NGIN will need to collect Personal and Industrial Data. INTRASOFT, as the Project Open Call Organizer will act as Data Controller for data submitted through the F6S platform for these purposes. The F6S platform's system design and operational procedures ensure that data is managed in compliance with The General Data Protection Regulation (EU) 2016/679 (GDPR). Each applicant will accept the F6S terms to ensure coverage. Please refer to <https://www.f6s.com/terms> to check F6S platform data privacy policy and security measures.

Please also note that IoT-NGIN requests the minimum information needed to deliver the evaluation procedures or introduce the new partners to the consortium. For example Annex 6: Bank account information is provided just for reference and will only be requested if the applicant is accepted in the IoT-NGIN consortium.

2.5 Origin of the funds

Any selected proposer will be inserted in the IoT-NGIN consortium an amendment to the project Grant Agreement. This activity will take place via the relevant EC electronic system.

The funds to the new consortium member come directly from the funds of the European Project IoT-NGIN, which is funded itself by the Directorate-General for Communications Networks, Content and Technology, and remain therefore, property of the EU until the payment of the balance, whose management rights have been transferred to the IoT-NGIN project coordinator via European Commission Grant Agreement Number 957246.

This relation between the new partners and the EC carries a set of obligations¹

¹ More information at https://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm

3 Proposal Eligibility Criteria

IoT-NGIN invites IoT devices manufacturers, software and FPGA/soft core SMEs to join the IoT-NGIN consortium by offering a) open interfaces and access to their IoT systems or b) embed IoT-NGIN extensions and/or porting IoT software components to FPGA/soft core.

3.1 SME Definition

An SME will be considered as such, if complying with the European Commission Recommendation 2003/361/EC² and the SME user guide³. As a summary, the criteria which define an SME are:

- a. Independent (not linked or owned by another enterprise), in accordance to Recommendation 2003/361/EC.
- b. Headcount in Annual Work Unit (AWU) less than 250.
- c. Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.

3.2 SME Eligibility Criteria

An applicant is considered eligible for IoT-NGIN open call if it complies will ALL the following rules:

- i. It is a legal entity, that comply to the SME definition as defined in section 3.1⁴
- ii. It is established and based in one of the EU Member States or an H2020 Associated country as defined in H2020 rules for participation⁵
- iii. It is a IT technology provider in the IoT domain. As examples, we refer to IoT device manufacturers, (embedded) software and FPGA/soft core SMEs, already active in the area of IoT-NGIN technology.
- iv. Applicants should be able to prove their financial stability and capacity and pass any financial check required by the European Commission, including **Financial capacity assessment**⁶.
- v. A start-up SME is also considered eligible, though **it should have been established at least one year before the submission of the application**. Moreover, it should be able to provide accurate Annual turnover and positive Balance Sheets of **at least one closed financial year** and comply with the financial capacity assessment criterion (iv).
- vi. In case an SME is awarded a position in the IoT-NGIN consortium, it will remain eligible even if, at a certain point during the project execution, it does not fulfil criteria (b) or (c) of section 3.1.

² European Commission Recommendation 2003/361/EC. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:en:PDF>

³ http://ec.europa.eu/enterprise/policies/sme/files/sme_definition/sme_user_guide_en.pdf

⁴ In case you are not sure if the legal entity that you represent in an SME, run the EC self-evaluation test <https://ec.europa.eu/growth/tools-databases/SME-Wizard/>

⁵ Governed by Article 7 of the Horizon 2020 Regulation. The list of associated countries is available at: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf

⁶ Please refer to https://ec.europa.eu/research/participants/docs/h2020-funding-guide/grants/applying-for-funding/register-an-organisation/financial-capacity-check_en.htm

- vii. Have not been convicted for fraudulent behaviours, other financial irregularities, unethical or illegal business practices.
- viii. Are not under liquidation or an enterprise under difficulty accordingly to the Commission Regulation No 651/2014 art. 2.18.

NOTE for UK applicants: Applicant SMEs from the UK remain eligible for grants and procurement procedures as if the UK were a member state for the entirety of the Horizon 2020 framework programme and previous framework programmes. This also applies for financial support to third parties according to Article 204 FR (cascading grants) and applies for the duration of H2020 projects.

Please note that signed version of **Annex 4: Honour Declaration** and **Annex 5: SME Financial Stability Declaration** are mandatory for a proposal submission.

3.3 Proposal Eligibility Criteria

The following proposal's eligibility criteria also apply:

- i. Proposals must offer either **open interfaces and access to their IoT systems or (embedded) IoT software components running on FPGA/soft cores or IoT devices**. Any developed HW/SW component within IoT-NGIN will be tested in IoT-NGIN pilots and provided as **Open Source**.
- ii. Proposals must have a **clear European dimension, facilitate IoT based innovation** and contribute towards European Union digitization, **targeting clear economic and societal impact**.
- iii. **Each applicant may submit only one (1) proposal at each IoT-NGIN open call. Multiple submissions per call is a disqualify factor**. In case an entity submits more than one proposal, all proposals that they have submitted will be automatically excluded from the evaluation process.
- iv. **It is considered as Conflict of Interest and the relevant proposals will be automatically considered not eligible, in case an individual participates, controls, submits or is associated in any way with more than one proposals**. As indicative example, without excluding other cases, it is not allowed for an individual to be in the project team or the advisory board of more than one proposals. Moreover, it is not allowed for an individual to have a legal, administrative, technical, advisory or financial position or capacity in more than one applicant or is in the position to access or influence in any way more than one proposals.
- v. **An SME may participate in maximum one (1) accepted application**. Applicants that will be accepted via Open Call #1, even if they do not manage to complete the contract preparation are automatically excluded from participating in Open Call #2 even if they submit a different proposal.
- vi. **In case an SME participates or plans to participate in more than one H2020- ICT-56-2020 "Next Generation Internet of Things" Open Call, it will be additionally checked to avoid double funding cases**.

4 Open Call submission and selection process

IoT-NGIN will issue two open calls. Open Call #1 targets IoT devices manufacturers, embedded software and FPGA/soft core partners to join the IoT-NGIN consortium by offering a) open interfaces and access to their IoT systems or b) embed IoT software components running on FPGA/soft cores or IoT devices. The following figure summarizes the open call process:

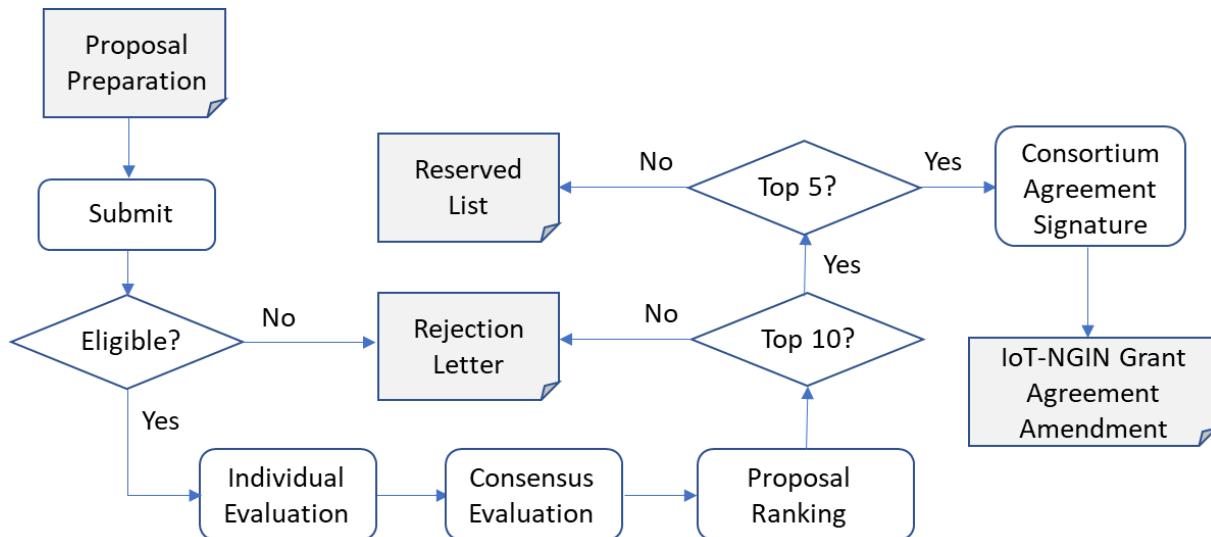


Figure 6: IoT-NGIN Evaluation process summary

4.1 Open Call Submission

The Open Call submission will follow the steps that are listed in this section:

4.1.1 Open Call publication

The open call #1 will be published on the dates shown in section §4.1.4. It will be supported by:

- **Annex 1: Open Call text**, which provides a full set of information regarding the Open Call for Proposals for the IoT-NGIN project.
- **Annex 2: Guidelines for Applicants**, this document.
- **Annex 3: Proposal Template**, an online application form, available at F6S platform (<https://www.f6s.com/iot-ngin-1st-open-call>).
- **Annex 3.1: Proposal Supplement Template**, a word document to be completed and submitted together with the proposal. It includes information on proposal concept, schedule, applicant/team, Ethical & Security details.
- **Annex 4: Honour Declaration**, which declares that all conditions of the Open Call are accepted by an SME legal representative.
- **Annex 5: SME Financial Stability Declaration**, which evaluates the status of the SME and its financial stability.
- **Annex 6: Bank account information**, which collects information on the applicant(s)' bank account where the IoT-NGIN payments will be sent to (for reference at submission time).
- **Annex 7: Frequently Asked Questions & Answers**, a document with Q&A.

4.1.2 Applicants Registration

Interested applicants should register at the IoT-NGIN F6S page (<https://www.f6s.com/iot-ngin-1st-open-call/>). This will be the central interface for managing the proposal applications for the remainder of the open calls.

4.1.3 Proposal Preparation

Please follow the steps:

1. For the proposal preparation, the applicants are requested to apply online and answer to all mandatory questions (with no exception) at: <https://www.f6s.com/iot-ngin-1st-open-call/apply>.
2. Applicants that do not accept the terms and conditions and do not sign and upload to the f6s platform the completed **Annex 4: Honour Declaration** and **Annex 5: SME Financial Stability Declaration** will not be eligible.
3. Be concrete and concise. Questions have character/page limitation. Please read carefully all open call documents/Annexes (<https://iot-ngin.eu/index.php/open-calls/>).
4. It is highly recommended to submit your proposal well before the deadline. If the applicant discovers an error in the proposal, and provided that the call deadline has not passed, the applicant may request its proposal to be withdrawn so that they may re-submit it (for this purpose please contact us at opencalls@iot-ngin.eu). **However, IoT-NGIN consortium is not committed that the submitted proposal will be withdrawn in time in case the request for resubmission is not received by the IoT-NGIN team at least 48 hours before the call deadline.**

It is strongly recommended not to wait until the last minute to submit the proposal. Failure of the proposal to arrive in time for any reason, including network communications delays or working from multiple browsers or multiple browser windows, is not acceptable as an extenuating circumstance. The time of receipt of the application as recorded by the submission system will be definitive.

4.1.4 Proposals reception

Submissions will be done ONLY via the F6S platform on <https://www.f6s.com/iot-ngin-1st-open-call/apply>. A full list of proposers will be drafted containing their basic information for statistical purposes and clarity (which will be also shared with EC for transparency).

The application reception will close at **17:00 CET (Brussels time) on Thursday 30th of December 2021**. There will not be any deadline extensions unless a major problem caused by the submission platform (and not by the proposers), makes the system unavailable.

4.2 Evaluation Procedures

4.2.1 Step 1.1: Eligibility

An automatic filtering to discard non-eligible proposals will follow the short list. Eligibility criteria check will verify that:

- a. The proposing entity is a legal entity eligible for EC funding under the rules of H2020 [Y/N]
- b. The participation rules as expressed in section 3.2 "SME Eligibility Criteria" are followed [Y/N]
- c. The participation rules as expressed in section 3.3 "Proposal Eligibility Criteria" are followed [Y/N]
- d. The proposal and all associated documents are written in the English Language [Y/N]
- e. All required annexes i.e. **Annex 4: Honour Declaration** and **Annex 5: SME Financial Stability Declaration** are correctly completed, signed, stamped and submitted [Y/N]

Proposals being marked as non-eligible will get a rejection letter including the reasons (a to e) for being catalogued as non-eligible. No further feedback on the process will be given.

4.2.2 Step 1.2: External remote evaluation

Two (2) IoT-NGIN consortium external evaluators with experience in IoT technologies, the relevant IoT-NGIN activities and business development will evaluate each proposal, scoring it based on the following evaluation criteria:

Criteria	Description
Criterion 1: Concept and Innovation	<ul style="list-style-type: none"> • Innovation, novelty and feasibility of the proposed subsystem objectives. • Design, reliability, feasibility, and quality of the proposed subsystem. • Level of innovation and technological challenges addressed.
Criterion 2: Technology	<ul style="list-style-type: none"> • Analysis of the technological and implementation capacity (existing and target TRL). • Quality and feasibility of the workplan (including proposed milestones). • Quality of the alignment with the IoT-NGIN project. • Details on how the proposed components will be tested and validated at the IoT-NGIN pilot/living labs.
Criterion 3: Impact	<ul style="list-style-type: none"> • Economic and societal impact of the proposed subsystem. • Market potential and go to market strategy. • European dimension, cross-sector/-border business scalability. • Exploitation / business plan and commercialization milestones.
Criterion 4: Applicant Entity/Team	<ul style="list-style-type: none"> • Capacity to applicant entity/team to perform the task. • Knowledge, technological and business expertise. • Financial viability/stability and capacity. • Commitment of the company and the team. • Allocation and justification of requested resources.

Each criterion will get a mark between 1 and 10. Half point scores are not given. For each criterion under examination, score values will indicate the following assessments:

- **1-2: Fail.** The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information.
- **3-4: Very poor.** The criterion is addressed in an unsatisfactory manner.
- **5: Poor.** There are serious inherent weaknesses.
- **6-7: Good.** While the proposal broadly addresses the criterion, there are significant weaknesses that would need correcting.
- **8-9: Very Good.** The proposal addresses the criterion well, although certain improvements are possible.
- **10: Excellent.** The proposal successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

The threshold for each criterion will be **six (6)**, while the overall score threshold will be **twenty-six (26)**. That means if a proposal receives less than 6 in one criterion or less than 26 overall score it is automatically rejected.

Each evaluator will record his/her individual evaluation/opinion of each proposal on an Individual Evaluation Report. After individual evaluation, the experts will communicate to prepare a single consensus Evaluation Summary Report (ESR) for each proposal, representing opinions and scores on which the evaluators agree and which they will sign.

4.2.3 Step 1.3: Final Ranking and Selection

At the end of the evaluation process all proposals will be ranked in a single list. The criteria for the ranking of the proposals will be semi-automatic following the rules below:

- **Rule 1:** The proposals will be ranked based on their overall score (sum of criterion 1 to 4 scores).
- **Rule 2:** In case following Rule 1 there are proposals in the same position, priority will be given to innovation of the concept (Criterion 1).
- **Rule 3:** In case following Rule 2 there are proposals in the same position, priority will be given to proposals that their technology better fit to IoT-NGIN scope (Criterion 2).
- **Rule 4:** In case following Rule 3 there are proposals in the same position, priority will be given to proposals that have higher impact and market potential (Criterion 3).
- **Rule 5:** In case following Rule 4 there are proposals in the same position, priority will be given to the application that has lower funding request.
- **Rule 6:** In case following Rule 5 there are proposals in the same position, priority will be given to the number of female researchers participating in the team.
- **Rule 7:** In case following Rule 6 there are proposals in the same position, priority will be given to the application that increases IoT-NGIN project footprint in Europe.

In case following Rule 7 there are still proposals in the same position, which are in the top 5 proposals, the IoT-NGIN consortium will invite at least 1 additional evaluator to read the specific proposals and break the conflict by re-evaluating them.

At the end, 5 proposals will be selected, while 5 additional proposals will remain in a reserve list. In case one of more selected proposals fail during contract preparation, the list of accepted proposals will be filled with proposals in the reserved list.

All proposals will receive an acceptance or rejection letter together with an anonymized version of their proposal Consensus Evaluation Report.

4.2.4 Step 1.4: Contract Preparation

After the Open Call evaluation conclusion and projects selection, the IoT-NGIN coordinator will inform the EU for the results and start the contract preparation in collaboration with the applicants that have been evaluated in the short list. Contract preparation will go via an administrative and financial checking (and potentially into technical or ethical/security negotiations) based on evaluators' comments. On a case by case approach, at least one phone call or teleconference may be needed for clarification.

The objective of the contract preparation is fulfilling the legal requirements between the European commission, the IoT-NGIN consortium and every selected beneficiary SME of the call. The items covered will be:

- To address the comments (if any) in the Evaluation Summary Report of the proposals.
- To validate the status information of the applicant. IoT-NGIN will support the European Commission in checking the financial stability and status of the applicant. In case the SME is not yet validated by the European Commission, at least the following documents will be required:
 - **Legal existence.** Company Register, Official Gazette or other official document per country showing the name of the organisation, the legal address, the official founding date, ownership and a copy of a document proving VAT registration (in case the VAT number does not show on the registration extract or its equivalent).
 - **Financial Stability.** It includes the headcount (AWU), balance, profit & loss accounts of the latest closed financial year and the relation, upstream and downstream, of any linked or partner company. In the event the applicant declares being non-autonomous, the balance sheet and profit and loss account (with annexes) for the last period for upstream and downstream organizations should also be provided.
 - In cases where the **number of employees and/or the ownership is not clearly identified:** any other supporting documents which demonstrate headcount and ownership such as payroll details, annual reports, national regional association records, etc.

In all cases, the SME should have a valid 9-digit **Participant Identification Code (PIC)**, have registered at the relevant ECAS system⁷ and completed the SME self-evaluation procedure⁸

- **To sign the IoT-NGIN Consortium Agreement.**
- **To provide the applicant Bank account information:** The account where the funds will be transferred will be indicated via a form signed by the Applicant legal representative and the bank representative. The account should be a business bank account of the applicant company.

It should be emphasised that each **SME should provide at contract preparation time a valid VAT⁹. Failure to provide the VAT number will automatically result in proposal rejection.**

⁷ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/participant-register>

⁸ <https://ec.europa.eu/growth/tools-databases/SME-Wizard/>

⁹ To be checked at EC services such as http://ec.europa.eu/taxation_customs/vies/

In general, the contract preparation (including all the above documentation) should be concluded within 2 weeks. An additional week may be provided by the IoT-NGIN coordinator in case of a significant reasoning. In case negotiations have not been concluded within the above period, the proposal is automatically rejected and the next proposal in the reserve list is invited.

4.2.5 Step 1.5: Contract Signature

At the end of the contract negotiation phase, an amendment to the IoT-NGIN Grant Agreement will be requested from the European Commission. In the amendment:

- The applicants selected from the Open Call #1 will be added as beneficiaries to IoT-NGIN consortium.
- All new proposed technological components will be added in the relevant WP2-WP5 as new tasks or activities, integrated in WP6 and tested in IoT-NGIN pilots at WP7.
- All new dissemination/impact creation and standardization activities will be included in the relevant Tasks (WP8)

After completion, signature and acceptance of the IoT-NGIN Grant Agreement Amendment by the European Commission, the project coordinator will release to the applicant 75% of the requested funding as advanced payment. All developments will go via normal review process of the project by external evaluators.

The provided funding remains property of the European Commission until the payment of the balance, whose management rights have been transferred to the project partners in IoT-NGIN via European Commission Grant Agreement Number 957246.

4.2.6 Redress process

Within 3 working days of the delivery of a rejection letter considering the proposal as non-eligible or an ESR, a proposer may submit a request for redress if s/he believes the results of the eligibility checks have not been correctly applied, or if s/he feels that there has been a shortcoming in the way his/her proposal has been evaluated that may affect the final decision on whether to enter the IoT-NGIN Consortium or not.

In that case, an internal review committee of the IoT-NGIN consortium will examine the request for redress. The committee's role is to ensure a coherent interpretation of such requests, and equal treatment of applicants.

Requests must be:

- Related to the evaluation process or eligibility checks.
- Clearly describe the complaint.
- Received within the time limit (3 working days) from the reception of a rejection letter considering the proposal as non-eligible or the ESR information letter delivered.
- Sent by the applicant legal representative that has also submitted the proposal.

The committee will review the complaint and will recommend an appropriate course of action. If there is clear evidence of a shortcoming that could affect the eventual funding decision, it is possible that all or part of the proposal will be re-evaluated.

Please note:

- This procedure is concerned only with the evaluation and/or eligibility checking process. The committee will not call into question the scientific, technical or impact judgement of appropriately qualified experts.

- A re-evaluation will only be carried out if there is evidence of a shortcoming that affects the final decision on whether to include the partner in IoT-NGIN consortium or not. This means, for example, that a problem relating to one evaluation criterion will not lead to a re-evaluation if a proposal has failed anyway on other criteria.
- The evaluation score following any re-evaluation will be regarded as definitive. It may be lower than the original score.

Only one request for redress per proposal will be considered by the committee. All requests for redress will be treated in confidence and have to be sent to Project Coordinator via the F6S platform.

5 Responsibilities of beneficiaries

The selected applicants become beneficiaries of European Commission funding. As such, they are responsible for the proper use of the funding and comply with obligations under H2020 specific requirements as described in Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020) [1]. The obligations that are applicable to the recipients include¹⁰:

5.1 Participation to the IoT-NGIN project

The newly selected applicants will become full beneficiaries of the IoT-NGIN project. They will sign the IoT-NGIN Consortium Agreement and the IoT-NGIN Grant Agreement Amendment and get all benefits and responsibilities of current IoT-NGIN consortium members. A non-exhaustive list of benefits and responsibilities include:

- The applicants selected from the Open Call will be added as beneficiaries to the EU portal
- All new technological components will be added in the relevant WP2-WP5, will be integrated with IoT-NGIN developments in WP6 and tested in IoT-NGIN pilots at WP7.
- All new technological components will be offered as Open Source (HW/SW) and will be utilized by the partners that will be invited via IoT-NGIN Open Call #2 to validate IoT-NGIN Technology.
- All impact creation and dissemination/standardization activities of the new beneficiaries will be included in the relevant Tasks (WP8).
- New project beneficiaries will participate in IoT-NGIN activities, including consortium/WP meetings and phone calls, pilot and dissemination activities, reviews from the EC.

5.2 Conflict of Interest

The applicant becomes a new IoT-NGIN beneficiary/member of the IoT-NGIN consortium. Thus, they must take all measures to prevent any situation where the impartial and objective implementation of the proposed tasks are compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest ('conflict of interests').

They must formally notify to the IoT-NGIN coordinator without delay any situation constituting or likely to lead to a conflict of interests and immediately take all the necessary steps to rectify this situation. The IoT-NGIN coordinator may verify that the measures taken are appropriate and may require additional measures to be taken by a specified deadline.

5.3 Data Protection & Confidentiality

During implementation of the action and for five years after the end of the IoT-NGIN project, the parties must keep confidential any data, documents or other material (in any form) that is identified as confidential at Consortium Agreement signing time ('confidential information').

¹⁰ The obligations described here are not binding and may be modified, refined or additional obligations may be inserted during the sub-project negotiation if needed.

Additional rules for data protection & confidentiality are part of the IoT-NGIN consortium agreement. It should be noticed that all software/embedded software implemented within the IoT-NGIN project is considered open source, covered by the relevant Open Source License. During the Consortium Agreement signature, the new beneficiary may describe in a specific Annex of the Consortium Agreement any background knowledge or asset that they are willing to remain as background knowledge.

5.4 Give visibility to the EU funding

The new beneficiary must promote the participation in the IoT-NGIN project and its results, by providing targeted information to multiple audiences (including the media and the public) in a strategic and effective manner and to highlight the financial support of the EC.

Unless otherwise defined in the IoT-NGIN Consortium Agreement, or the European Commission or the IoT-NGIN coordinator requests or agrees otherwise or unless it is impossible, any communication activity related to the action (including in electronic form, via social media, etc.), any publicity, including at a conference or seminar or any type of information or promotional material (brochure, leaflet, poster, presentation etc.), and any infrastructure, equipment and major results funded by the grant must:

- (a) display the EU emblem;
- (b) display the IoT-NGIN logo and
- (c) include the following text:

For communication activities: *“IoT-NGIN project has received funding from the European Union's Horizon 2020 research and innovation programme (Grant Agreement No 957246)”*.

For infrastructure, equipment and major results: *“This [infrastructure][equipment][insert type of result] has been funded from the European Union's Horizon 2020 research and innovation programme under project IoT-NGIN (grant agreement No 957246)”*.

When displayed in association with a logo, the European emblem should be given appropriate prominence. This obligation to use the European emblem in respect of projects to which the EC contributes implies no right of exclusive use. It is subject to general third-party use restrictions which do not permit the appropriation of the emblem, or of any similar trademark or logo, whether by registration or by any other means. Under these conditions, the Beneficiary is exempted from the obligation to obtain prior permission from the EC to use the emblem. Further detailed information on the EU emblem can be found on the Europa web page.

Any publicity made by the beneficiary SME in respect of the project, in whatever form and on or by whatever medium, must specify that it reflects only the author's views and that the EC or IoT-NGIN project is not liable for any use that may be made of the information contained therein.

The EC and the IoT-NGIN consortium shall be authorised to publish, in whatever form and on or by whatever medium, the following information:

- the name of the beneficiary SME;
- contact address of the beneficiary SME;
- the general purpose of the new tasks/components;
- the amount of the financial contribution foreseen for the new beneficiary and after the final payment, the amount of the financial contribution actually received;
- the geographic location of the activities carried out;

- the list of dissemination activities and/or of patent (applications) relating to foreground;
- the details/references and the abstracts of scientific publications relating to foreground and the published version or the final manuscript accepted for publication;
- any picture or any audio-visual or web material provided to the EC and IoT-NGIN in the framework of the project.

The beneficiary shall ensure that all necessary authorisations for such publication have been obtained and that the publication of the information by the EC and IoT-NGIN does not infringe any rights of third parties.

Moreover, all software developed within IoT-NGIN will be available as Open Source, under the relevant license

Upon a duly substantiated request by the beneficiary, the IoT-NGIN coordinator, if such permission is provided by the EC, may agree to forego such publicity if disclosure of the information indicated above would risk compromising the beneficiary's security, academic or commercial interests.

5.5 Financial audits and controls

The European Commission (EC) will monitor that IoT-NGIN beneficiaries (including the newly added beneficiary) comply with all the Horizon 2020 Grant Agreement obligations and responsibilities.

Moreover, the EC may at any time during the implementation of the IoT-NGIN project and up to 5 (five) years after the end of the IoT-NGIN project, arrange for financial audits to be carried out, by external auditors, or by the EC services themselves including the European Anti-Fraud office (OLAF). The audit procedure shall be deemed to be initiated on the date of receipt of the relevant letter sent by the EC. Such audits may cover financial, systemic and other aspects (such as accounting and management principles) relating to the proper execution of the grant agreement. They shall be carried out on a confidential basis.

The beneficiary shall make available directly to the EC all detailed information and data that may be requested by the EC or any representative authorised by it, with a view to verifying that the grant agreement is properly managed and performed in accordance with its provisions and that costs have been charged in compliance with it. This information and data must be precise, complete and effective.

The beneficiary shall keep accurate global timesheets for all personnel involved in the project according to H2020 rules. Moreover, shall keep all project deliverables and all documents relating to the activity for up to five years from the end of the project. These shall be made available to the EC where requested during any audit under the grant agreement.

In order to carry out these audits, the beneficiary shall ensure that the EC's services and any external body(ies) authorised by it have on-the-spot access at all reasonable times, notably to the sub-project applicant offices, to its computer data, to its accounting data and to all the information needed to carry out those audits, including information on individual salaries of persons involved in the project. They shall ensure that the information is readily available on the spot at the moment of the audit and, if so requested, that data be handed over in an appropriate form.

On the basis of the findings made during the financial audit, a provisional report shall be drawn up. It shall be sent by the EC or its authorised representative to the beneficiary concerned, which may make observations thereon within one month of receiving it. The Commission may decide not to take into account observations conveyed or documents sent

after that deadline. The final report shall be sent to the beneficiary concerned within two months of expiry of the aforesaid deadline.

On the basis of the conclusions of the audit, the EC shall take all appropriate measures which it considers necessary, including the issuing of recovery orders regarding all or part of the payments made by it and the application of any applicable sanction.

The European Court of Auditors shall have the same rights as the EC, notably right of access, for the purpose of checks and audits, without prejudice to its own rules.

In addition, the EC may carry out on-the-spot checks and inspections in accordance with Council Regulation (Euratom, EC) No 2185/96 of 11 November 1996 concerning on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities' financial interests against fraud and other irregularities.

6 Checklist

- 1) **Does your planned work fit with the call for proposals?** Check that your proposed work does indeed address one of the topics open in this call.
- 2) **Does your proposal address IoT-NGIN technology?** Check that your proposed work does indeed address the IoT-NGIN technologies (IoT, in one of the target sectors).
- 3) **Is your proposal eligible?** The eligibility criteria are given in chapter 3 "Proposal Eligibility Criteria". In particular, make sure that you satisfy the minimum participation requirements (SME from eligible countries).
- 4) **Is your proposal complete?** Have you completed all mandatory questions and uploaded all necessary documents/Annexes?
- 5) **Does your proposal fulfil questions requests/comments?** Proposals should be precise, concise and must answer to requested questions, which are designed to correspond to the applied evaluation. Omitting requested information will almost certainly lead to lower scores and possible rejection.
- 6) **Have you maximised your chances?** There will be strong competition. Therefore, edit your proposal tightly, strengthen or eliminate weak points.
- 7) **Have you submitted your proposal before the deadline?** It is strongly recommended not to wait until the last minute to submit the proposal. Failure of the proposal to arrive in time for any reason, including network communications delays, is not acceptable as an extenuating circumstance. The time of receipt of the message as recorded by the submission system will be definitive.
- 8) **Have you provided the necessary annexes?**
- 9) **Do you need further advice and support?** You are advised to communicate with the IoT-NGIN team via the IoT-NGIN blog.

Do not forget that it is mandatory the applicant to have a valid PIC and VAT number during contract preparation time.

7 Contacts

The IoT-NGIN consortium will provide information to the applicants only via the F6S blog, so that the information (question and answer), will be visible to all participants.

No binding information will be provided via any other means (e.g. telephone or email).

More info at: <https://iot-ngin.eu/index.php/open-calls/>

Apply via: <https://www.f6s.com/iot-ngin-1st-open-call>

F6S support team: support@f6s.com

Q&A document: <https://iot-ngin.eu/wp-content/uploads/2021/09/Annex-7.-IoT-NGIN-Open-Call-1-FAQ.pdf>

Online Q&A: <https://www.f6s.com/iot-ngin-1st-open-call/discuss>

Other support¹¹: opencalls@iot-ngin.eu

¹¹ For non-binding information

8 References

- [1] Digital Innovation Initiatives based on European Networks of Competence Centres in H2020, available online at <https://smartanythingeverywhere.eu/smart-anything-everywhere/>
- [2] REGULATION (EU) No 1290/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 laying down the rules for participation and dissemination in "Horizon 2020 - the Framework Programme for Research and Innovation (2014-2020)" and repealing Regulation (EC) No 1906/2006
- [3] EUROPEAN COMMISSION, Directorate-General for Communications Networks, Content and Technology, "Guidance note on financial support to third parties under H2020", Annex K. "Actions involving financial support to third parties", http://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2016_2017/annexes/h2020-wp1617-annex-k-fs3p_en.pdf
- [4] H2020 Call Objective ICT-04-2017 TOPIC: Smart Anything Everywhere Initiative, <https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-04-2017.html>