



D6.1 Call Announcement and Guide for Applicants - First Open Call

Document Identification			
Status	Final	Due Date	31/08/2023
Version	1.0	Submission Date	31/08/2023

Related WP	WP6	Document Reference	D6.1
Related Deliverable(s)		Dissemination Level (*)	PU
Lead Participant	FBA	Lead Author	Elena Japundžić
Contributors		Reviewers	Carmen San Román (ATOS)
			Gabriele Giammatteo (ENG)

Keywords:

Project resources, Financial Support to third parties, project management, project internal communication, Guide for Applicants, Frequently asked questions, Application Form, Open call package documents, project reporting, Open Call management.

This document is issued within the frame and for the purpose of the ICOS project. This project has received funding from the European Union's Horizon Europe Framework Programme under Grant Agreement No. 101070177. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the European Commission.

The dissemination of this document reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains. This deliverable is subject to final acceptance by the European Commission.

This document and its content are the property of the ICOS Consortium. The content of all or parts of this document can be used and distributed provided that the ICOS project and the document are properly referenced.

Each ICOS Partner may use this document in conformity with the ICOS Consortium Grant Agreement provisions.

(*) Dissemination level: **(PU)** Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page). **(SEN)** Sensitive, limited under the conditions of the Grant Agreement. **(Classified EU-R)** EU RESTRICTED under the Commission Decision No2015/444. **(Classified EU-C)** EU CONFIDENTIAL under the Commission Decision No2015/444. **(Classified EU-S)** EU SECRET under the Commission Decision No2015/444.

Document Information

List of Contributors	
Name	Partner
Elena Japundžić	FBA

Document History			
Version	Date	Change editors	Changes
0.1	20/07/2023	Elena Japundžić (FBA)	Draft version to be reviewed
0.2	01/08/2023	Gabriele Giammatteo (ENG)	Peer review
0.3	04/08/2023	Carmen San Román (ATOS)	Peer review
0.4	14/08/2023	Elena Japundžić (FBA)	Reviewed version
1.0	31/08/2023	Carmen San Román (ATOS)	FINAL VERSION TO BE SUBMITTED

Quality Control		
Role	Who (Partner short name)	Approval Date
Deliverable leader	Elena Japundžić (FBA)	14/08/2023
Quality manager	Carmen San Román (ATOS)	31/08/2023
Project Coordinator	Francesco D'Andria (ATOS)	31/08/2023

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	2 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

Table of Contents

Document Information	2
Table of Contents	3
List of Acronyms.....	4
Executive Summary	5
1 Introduction	6
1 Call announcement	7
2 Guide for Applicants (GfA).....	10
3 Frequently Asked Questions (FAQ).....	41
4 Application Form Template.....	53
5 Reflections and Lessons Learned	76

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	3 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status: Final

List of Acronyms

Abbreviation / acronym	Description
EC	European Commission
FAQ	Frequently Asked Questions
GA	Grant Agreement
GfA	Guide for Applicants
KPI	Key Performance Indicator
OC	Open Call
PC	Project Coordinator
PU	Public
WP	Work Package
WPL	Work Package Leader

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	4 of 77				
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

Executive Summary

This document is the deliverable D6.1 Call Announcement and Guide for Applicants - First Open Call and it defines the Open Call (OC) package of documents for the management of the first Open Call in order to initiate Cascade funding of the project and engage in the Financial Support to Third Parties (FSTP) part of the project.

This document is based on FundingBox Accelerator (FBA) FSTP Management Procedures for Horizon Europe projects and built upon the FBA Quality Procedures.

The document follows a common structure according to the FBA internal quality standards and will include all the documents needed for the 1st ICOS Open Call for funding up to 5 Consortia Use Cases.

This deliverable contains the following documents:

1. Open Call Announcement for the 1st ICOS Open Call
2. Guide for Applicants for the 1st ICOS Open Call
3. Frequently Asked Questions for the 1st ICOS Open Call
4. Application Form template for the 1st ICOS Open Call

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	5 of 77	
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

1 Introduction

This deliverable includes the package of documents for the **1st ICOS Open Call** and it is composed of the open call announcement, the Guide for Applicants (GfA), the Frequently Asked Questions (FAQ) and the Application form.

This deliverable contains guidance documents that are targeting the potential applicants, **2-entities per consortia**, both SME/midcaps, to participate and join the 12 months support programme under ICOS project, known as the **Solutions development projects**. The applicants interested in the first open call are expected to apply through the dedicated open call platform at <https://icos.fundingbox.com/> between **28 August 2023 and 02 November 2023**.

The deliverable D6.1, including the package of documentation for the first open call in ICOS, is part of WP6, Task 6.2 Open Call Management, where FundingBox is the task leader and partners from ATOS, FBC and SUITE5 will bring their contributions in execution and management of Open Calls and the Financial Support provided in the form of lump sum to the third parties selected through the Open calls and coherency of the application process within the documentation. This deliverable is the first step towards accomplishing the objective of launching and managing the first of the two open calls expected in the ICOS project. The project targets to have two OC published for a total of 20 funded projects (5 in the first OC and 15 in the second) and 1.9M€ distributed as FSTP. 5 grantees of the 12 month support programme are targeted in the first open call.

The results of the application and selection process, as detailed in the Guide for Applicants, part of this deliverable, will be reported in the Deliverable D6.2 Public Summary Report - First Open Call after the Open Call is concluded.

The Call Announcement included in this deliverable has been posted online as well on the Participant Portal at:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/competitive-calls-cs/3761>

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	6 of 77	
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

1 Call announcement

Announcement of an open call for recipients of financial support

Information to be provided by the project consortium	
Call title:	ICOS 1st Open Call
Full name of the EU funded project:	Towards a functional continuum operating system
Project acronym:	ICOS
Grant agreement number:	101070177
Call publication date:	28 th of August 2023 at 09:00 CEST
Call deadline:	2 nd of November 2023 at 17:00 CET
Expected duration of participation:	Up to 12 months
Total EU funding available:	1,000,000.00
Submission & evaluation process:	Detailed information about the ICOS 1st Open Call submission and evaluation process can be found on the ICOS website: https://www.icos-project.eu/ and ICOS 1st Open Call microsite : https://icos.fundingbox.com/ .
Further information:	A more complete overview of the Open Call and proposal guidelines can be found on the official Open Call website here https://icos.fundingbox.com/ . Email address for further information: icos@fundingbox.com , or elena.japundzic@fundingbox.com Project website: https://www.icos-project.eu/

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	7 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

Task description:	<p>T6.1. Open Call Management:</p> <p>From GA:</p> <p>This task oversees the management of 2 Open Calls and the Financial Support (a total of 1.9M€) provided in the form of lump sum to the third parties selected through the Open calls (covering O6.2).</p> <p>The Open Calls are:</p> <ol style="list-style-type: none"> 1) Solutions Development projects open call, to be launched in M12 to fund up 5 consortia (tech provider and sectoral end-user), to develop ICOS implementation in 5 verticals (different to the pilot cases), and 2) ICOS uptake projects, launched at M21, to fund 15 SMEs aimed to use ICOS platform in one of the 9 verticals (from pilot cases plus those from 1st Open Call). <p>The management of the Open Calls and FSTP entails the following subtasks: (i) Open Call preparation, which will start 3 months before launching the Open Calls to prepare the Open Call package of Documents and the Communication Toolkit; (ii) Open Call launch and dissemination which will last 2 months to properly disseminate the Call among potential beneficiaries; (iii) Selection process and SGA signature where the FSTP beneficiaries will be selected through an exhaustive selection process, overseen by the Selection Committee, which guarantee transparency, equal treatment, conflict of interest and confidentiality (see Annex 1 for detail). The formal check and the ethics assessment of the beneficiaries will be done and the SubGrant Agreements (SGA) signed; (iv) Third parties projects execution where the 3rd parties projects will be executed according to the specifications included in the Individual Mentoring Plan (IMP) annexed to their SGA. A Mentoring Committee will be assembled to provide technical support to the 3rd parties in their interaction with ICOS and to evaluate the deliverables produced by the third parties according to their IMP; (v) 3rd parties follow-up and payment, where the Milestones Reviews to assess the performance of the FSTP projects and to validate the payments will be organized (see Annex 1 for detail on the Milestone review process). FBA will lead all the subtasks, except subtask (iv) for 3rd parties execution, led by ATOS, and FBA will chair and moderate the Mentoring Committee to ensure the alignment with the Milestone Review process implemented for the 3rd parties follow-up and payment. A detailed description of the Open Call and FSTP Management procedures is provided in Annex 1.</p> <p>Output: 2 OC published, 5&15 selected finalists, 20 SGAs signed, 20 funded projects using ICOS platform, 1.9M€ distributed as FSTP.</p> <p>From GfA:</p> <p>ICOS (https://www.icos-project.eu/) is a project funded by the European Commission (under the topic: HORIZON-CL4-2021-DATA-01-05 and Grant Agreement number: 10107017) covering a set of challenges emerging from the continuum paradigm. ICOS project will embed a well-defined set of functionalities, ending up in the definition of an IoT2cloud Operating System (ICOS).</p> <p>The main objective of the project ICOS is to design, develop and validate a meta operating system for a continuum, by addressing the challenges of: i)</p>
--------------------------	--

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	8 of 77
Reference:	D6.1	Dissemination: PU	Version: 1.0
Status:	Final		

	<p>devices volatility and heterogeneity, continuum infrastructure virtualization and diverse network connectivity; ii) optimized and scalable service execution and performance, as well as resources consumptions, including power consumption; iii) guaranteed trust, security and privacy, and; iv) reduction of integration costs and effective mitigation of cloud provider lock-in effects, in a data-driven system built upon the principles of openness, adaptability, data sharing and a future edge market scenario for services and data.</p> <p>In order to achieve its goals ICOS project is looking for:</p> <ol style="list-style-type: none"> 1. Solutions development projects (1st Open Call): at least 2 organizations (SME/midcap; technology provider, and an end-user to validate the developed project) to partner for the project to develop a use case within a specific sector, through the ICOS technology. 2. ICOS uptake projects (2nd Open Call) : is oriented to technology providers (mainly SME/midcap) working as service providers in the sectors of the <u>pilot use cases</u> and the projects from the 1st Open Call. They will test their applications and services through the ICOS infrastructure to improve them. <p>The unstoppable proliferation of novel computing and sensing device technologies, and the ever-growing demand for data-intensive applications in the edge and cloud, are driving the next wave of transformation in computing systems architecture. The resulting paradigm shift in computing is centered around dynamic, intelligent and yet seamless interconnection of IoT, edge and cloud resources in one computing system, to form a continuum.</p> <p>A continuum (cloud continuum, IoT continuum, edge-to-cloud or fog-to-cloud) is expected to provide the means for data processing both in the edge and cloud, while inferring and persisting important information for post-mortem and offline analysis. We envision a holistic approach towards the solutioning of this technology trend in future systems, by architecting, designing and implementing the continuum as extensible, open, secure, adaptable, AI-powered as well as well highly performant and technology agnostic, managed through a meta OS, i.e., IoT2Cloud Operating System (ICOS).</p>
--	---

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	9 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

2 Guide for Applicants (GfA)



Guide for Applicants

1st Open Call

Submission starts on **28th of August 2023 at 9:00** (CEST)

Deadline is on the **2nd of November 2023 at 17:00** (CET)

V2, 05/07/2023



Funded by the
European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission. Neither the European Union nor the granting authority can be held responsible for them. ICOS has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101070177.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	10 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

Table of Content

1. Basic Info about ICOS	3
2. What do we offer?	4
3. Admissibility and eligibility Criteria	5
3.1 Who are we looking for?	5
3.2 What types of activities can be funded?	6
3.3 How to apply?	8
4. How will we evaluate your proposal?	9
4.1 First Admissibility and Eligibility Check	10
4.2 In/Out of Scope	10
4.3 External Evaluation	11
4.4 Consensus Meeting	13
4.5 What's next? Subgrant Agreement Preparation and Signature	13
5. Our Support Programme and Payment Arrangements	14
Payment schedule	14
Review process	15
6. Contact us	16
How can we help you?	16
Complaints	16
7. Last but not least - final provisions	16
8. Extra hints before you submit your proposal	17
Annex A: ICOS architecture White Paper	18
Annex B: List of proposed use cases	30
Annex C: ICOS PILOT use cases	32

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	11 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

1 Basic Info about ICOS

ICOS (<https://www.icos-project.eu/>) is a project funded by the European Commission covering a set of challenges emerging from the continuum paradigm. ICOS project will embed a well-defined set of functionalities, ending up in the definition of an IoT2Cloud Operating System (ICOS).

The main objective of the project ICOS is to design, develop and validate a meta operating system for a continuum, by addressing the challenges of: i) devices volatility and heterogeneity, continuum infrastructure virtualization and diverse network connectivity; ii) optimized and scalable service execution and performance, as well as resources consumptions, including power consumption; iii) guaranteed trust, security and privacy, and; iv) reduction of integration costs and effective mitigation of cloud provider lock-in effects, in a data-driven system built upon the principles of openness, adaptability, data sharing and a future edge market scenario for services and data.

In order to achieve its goals ICOS project is looking for:

1. **Solutions development projects (1st Open Call):** consortia of at least 2 organizations (SME/midcap; technology provider, and an end-user to validate the developed project) to partner for the project to develop a use case within a specific sector, through ICOS technology.
2. **ICOS uptake projects (2nd Open Call):** technology providers (mainly SME/midcap) working as service providers in the sectors of the [ICOS pilot use cases](#) and the projects from the 1st Open Call. They will test their applications and services through the ICOS infrastructure to improve them.

The ICOS pilot use cases play an important role in the project: they will provide functional and non-functional requirements for the ICOS System and they will be early adopters of the system providing essential feedback on how to improve it. At the same time, the adoption of ICOS will enhance the pilot cases with unique application deployment and runtime management features implemented by ICOS.

See below: [Annex A: ICOS Architecture/infrastructure](#)

2 What do we offer?

ICOS will launch 2 Open Calls (distributing up to 1.9 M€), to select up to 20 third party Projects. During the 1st ICOS Open Call, 5 completely new third party projects/use cases will be developed through the proposed use cases listed in [Annex B](#). Selected projects will join the 4 already existing use cases listed in [Annex C](#) and will deploy the ICOS developed technology in real scenarios for new application and services development.

5 project selected through the 1st Open Call ICOS will receive:

1. 12 month support from ICOS partners in implementing ICOS infrastructure in the use case;
2. up to **200,000 €** per project. Divided between 2 entities up to **150,000 €** for the Technology provider and up to **50,000 €** for End-User;

Applications are welcome from **28th of August 2023 at 9:00 (CEST)** until **2nd of November 2023 at 17:00 (CET)** on <https://icos.fundingbox.com/>.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	12 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
		Status:	Final		

3 Admissibility and eligibility Criteria

We will check the admissibility and eligibility of all proposals submitted before the deadline and via our online application form: <https://icos.fundingbox.com/>. All the admissibility and eligibility criteria are listed in this section of the Guide for Applicants. The projects that do not comply with those criteria will be excluded and marked as ineligible. We will check the admissibility and eligibility criteria based on the information provided in your application during the whole evaluation process.

3.1 Who are we looking for?

Through this 1st Open Call we are looking for ‘Solutions development projects’:

- 2 organizations (a **technology provider**, and an **end-user**) to partner on a project to develop new use cases for adoption application deployment and runtime management features implemented with the use of ICOS (proposed use cases listed in Annex B) within a specific sector through the ICOS infrastructure.
- Project needs to be **DIFFERENT from the pilot use cases**’ listed in [Annex C](#). In short: **the use cases applied for the 1st Open Call CANNOT be: agriculture robotics, railway inspection, automated vehicles or energy management at domestic uses.**
- The project must customize the [ICOS infrastructure](#) (alfa and beta releases), and finally deploy an application to operate with the ICOS framework.

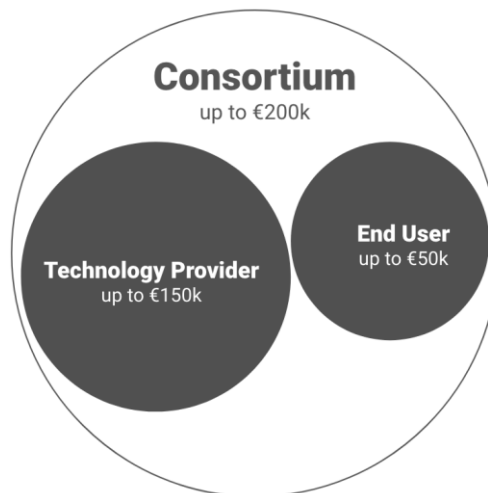


Figure 1: Consortium Composition

Technology Provider¹ is any entity, IoT infrastructure provider, that will be deployed across the ICOS continuum. This infrastructure may include IoT devices that allow deployment of ICOS controller² and/or agent³. Moreover, in the case that the capability to deploy ICOS is restricted, either due to processing resources limitations or because of access to the Hardware device OS, the APIs can be

¹ Leading team member of the consortium.

² The ICOS component/software that is responsible for peering with ICOS Agents for providing control and lifecycle.

³ The basic ICOS software component that needs to be installed on each node (infrastructure node) capable of executing external software and/or providing data and metadata.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	13 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

exploited. The final goal of Technology Provider is to use ICOS to gain the ability to open the infrastructure to multiple vertical applications.

End User is an entity that will be the end user of the deployed application/service.

Both entities of a consortium must have an SMEs⁴ or Mid-caps⁵ status and must be registered⁶ in one of the the following countries⁷:

The [Member States of the European Union](#) and its Overseas Countries and Territories (OCT)⁸ or [Horizon Europe Associated Country](#)⁹.

Consortium members applying for this Open Call cannot be entities related by capital.

3.2 What types of activities can be funded?

Participants are expected to address the deployment of ICOS system through developing the services within a specific end user domain, based on the project information provided in this guide regarding project objectives, reference architecture and components already under development (see [Annex A](#)). Selected projects must customize the ICOS infrastructure (from alpha and beta releases) to the service in a specific end user domain that will lead to **developing the use case service with at least TRL 3-4¹⁰ by integrating it into the ICOS ecosystem and adopting the ICOS architecture/infrastructure** (see [Annex A](#)). The developed service is expected to be validated by the participant acting as an End User, reaching TRL 5.

⁴ An SME will be considered as such if it complies with the European Commission’s Recommendation 2003/361/EC. As a summary, the criteria defining an SME are:

- Headcount in Annual Work Unit (AWU) less than 250;
- Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.

Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

⁵ **Middle-capitalization company’ or ‘Midcap’** means an enterprise that is not a SME and that has up to 3 000 employees, knowing that the staff headcount is calculated in accordance with Articles 3 to 6 of the Annex to Commission Recommendation 2003/361/EC: <https://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF>

⁶ Entities must be registered as legal entities no later than the end date of this open call (no later than 2nd November 2023).

⁷ The applicants who are subject to [EU restrictive measures](#) under Article 29 of the Treaty on the European Union (TEU) and Article 215 of the Treaty on the Functioning of the EU (TFEU) are not eligible to participate in this open call. Please note that the EU Official Journal contains the official list and, in case of conflict, its content prevails over that of the EU Sanctions Map.

⁸ Following the Council Implementing Decision (EU) 2022/2506, as of 16th December 2022, no legal commitments can be signed with Hungarian public interest trusts established under Hungarian Act IX of 2021 or any entity they maintain. Affected entities may continue to apply to calls for proposals. However, in case the Council measures are not lifted, such entities are not eligible to participate in the ICOS 1st open call. In case of consortium, co-applicants will be invited to remove or replace that entity. Tasks and budget may be redistributed accordingly.

⁹ (AC up to 28.08.2023): Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, North Macedonia, Norway, Serbia, Türkiye, Tunisia, and Ukraine, for the most up-to-date list please first part of this [document](#).

¹⁰ https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-13-general-annexes_horizon-2021-2022_en.pdf

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	14 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Participants are expected to:

develop the use case in one of topics defined by ICOS¹¹

1. Large and heterogeneous scenarios with massive deployment of mobile (far) edge/IoT devices
2. Critical scenarios demanding for distributed execution while supporting strong security/privacy guarantees.
3. Energy-aware framework to cover demands across the whole cloud-to-edge continuum and across different use cases.
4. Cloud-Edge-IoT continuum frameworks for autonomous groups of vehicular nodes
5. Hardware Acceleration scenario where intelligence applications will require computing infrastructure that provides Hardware acceleration capabilities.
6. Deploy, operate and maintain a highly available and reliable fleet of robotic services across the device-edge-cloud continuum, implementing a SWARM approach across the continuum.
7. Open Use case¹²

Always under conditions:

Applicants should address the deployment of ICOS platform for improving and optimizing the services within a specific domain, **different** from the [pilot use cases](#) of the project:

- Domains excluded (from the [ICOS pilots](#)): agriculture robotics, railway inspection, automated vehicles, energy management at domestic uses.
- The project must customize [the platform](#) (from alpha and beta releases) with the service in a specific domain.
- The project will deploy a specific application in the given domain to operate with the adopted ICOS infrastructure.

3.3 How to apply?

When applying to ICOS’ 1st Open Call, please also note the following:

- **Be on time and use our system:** Make sure you submit your proposal through the [online form](#) before the deadline **2nd of November 2023 at 17:00 (CET)** (admissibility criterion). If you submit the form correctly, the system will send you a confirmation of your submission. Get in touch with us if it is not the case. It is important for you to know that we will not be evaluating any proposal sent after the deadline and submitted outside the dedicated form.
- **English language:** Your proposal must be written in **English** in all mandatory parts in order to be eligible. Only information provided in English will be evaluated. If the mandatory parts of the proposal are in any other language, the entire proposal will be rejected (admissibility criterion).
- **Every question deserves your attention:** All mandatory sections of your proposal - generally marked with an asterisk - must be completed (admissibility criterion). The data provided should be actual, true, and complete and should allow assessment of the proposal. Additional material, not specifically requested in the online application form, will not be considered for the evaluation. We will ask you to insert the exact cost estimation/exact budget split in the application form.
- **European Dimension:** Your project should have a clear European Dimension meaning that your project should participate in increasing European autonomy in data processing required to support

¹¹ Detailed description about the use case topics is included in [Annex C](#).

¹² You can present your project in other vertical from the ones proposed by the consortium, while addressing the deployment of ICOS infrastructure

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	15 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

future hyper-distributed applications by building open platforms and an open edge ecosystem including business models, driven by European actors. Moreover it should be in some way triggering a market shift from the widespread of cloud-based infrastructure models dominated by non-EU players, towards a future strategy for European product and system innovation and leadership based on a compute continuum with strong capacities at the edge and far edge infrastructure. It should impact an improved European leadership in the global data economy and reinforce Europe’s ability to manage urgent societal challenges.

- **Be exhaustive:** You have to verify the **completeness of the form**, as it won’t be possible to add any further information after the deadline. After the proposal is submitted, you will be able to modify the form until the deadline.
- You can submit **only one proposal** in this open call. If more than one proposal submitted by you, your consortium or your consortium partner is identified, only the last proposal which has been submitted in order of time will be evaluated. Other proposals will not be eligible. So no point in multiplying your chances this way, it is better to submit only one proposal and focus on it.
- **Conflict of interest:** We will take into consideration the existence of potential **conflict of interest** among you and one or more ICOS [Consortium partners](#)¹³. Consortium partners, their affiliated entities, employees and permanent collaborators cannot take part in the ICOS support programme. All cases of potential conflict of interest will be assessed on a case-by-case basis. See more in the [FAQ](#).
- **Healthy finances and a clean sheet are a must:** We **don’t accept entities that are under liquidation** or are an enterprise that are under liquidation or are an enterprise under difficulty according to the Commission Regulation No 651/2014, art. 2.18, or that are excluded from the possibility of obtaining EU funding under the provisions of both national and EU law, or by a decision of both national or EU authority. We also don’t accept entities that are meeting national regulations regarding bankruptcy.
- Your project should be based on your original work or your right to use the **IPR** must be clear. Going forward, any foreseen developments must be free from third party rights, or those third-party rights must be clearly stated (you must have a license agreement or the IPR must be transferred to you from somebody who created the work). In particular, any work related to the implementation of the project described in the application may not violate the IPR of third parties, and the IPR to the application project may not be the subject of a dispute or proceedings for infringement of third party IPR.
- All the developed technology **to be integrated in the ICOS architecture** must be open source. Results are owned by the beneficiaries that generate them. The Open Call Sub-Grant Agreement will introduce provisions concerning joint ownership of the results generated within the ICOS project, if applicable. This will be assessed and negotiated on a case-by-case basis.
- Acceptance of the open call rules: to apply for this open call you have to accept its rules and regulations detailed in this Guide for applicants.

¹³ <https://www.icos-project.eu/consortium>

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	16 of 77	
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

4 How will we evaluate your proposal?

Our evaluation process is transparent, fair and equal to all our participants. We will evaluate your project in four phases as shown below:

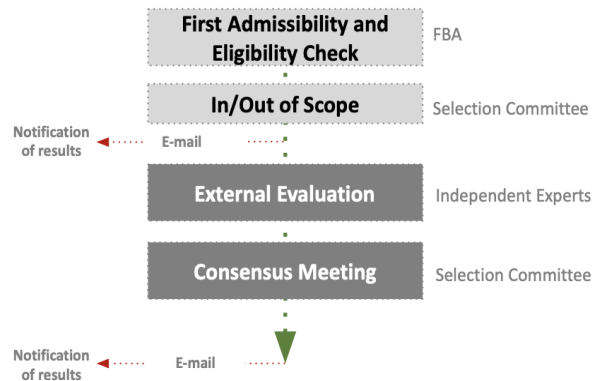


Figure 2: Evaluation process

4.1 First Admissibility and Eligibility Check

Once the open call is closed, we will check whether it meets the admissibility and eligibility conditions set up in [section 3](#). We will do it on the basis of the statements included in your proposal.

At this stage, the eligibility criteria are checked against a Declaration of Honour or self-declarations included in the application form. Later on, the above criteria will be verified during the whole evaluation process (including the final formal check).

The projects that do not comply with these criteria will be rejected.

As a result of the checking, a ‘List of Eligible Applications’ will be produced.

4.2 In/Out of Scope

In order to make sure that our support helps in achieving an optimal impact in the framework of ICOS project it’s important that all proposals match the scope of the types of activities described in [Section 3.2](#) and clearly demonstrate it.

For this reason, at least, one Selection Committee partner will review the following aspects of your proposal:

- **Scope.** The objectives of the proposal must fit within the scope of the project as it is described in this Guide for Applicants. It should be clear that applicants are going to make use of the ICOS platform in the deployment for the Solutions development (Use Case), in new sector domains.
- **European Dimension.** As described in [section 3.3](#) above.

The experts from our Selection Committee will assess if your proposal complies with the aspects above on a YES/NO basis and will provide reasoning in the cases where no compliance evidence is found. The Selection Committee will confirm which are the rejected proposals.

Be aware that proposals that do not comply with any of the aspects described above will be rejected. The ones complying with all of them will move on to the external evaluation phase.

We will inform you about the results of the first eligibility check and the In/Out of Scope pre-screening.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	17 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

4.3 External Evaluation

In this phase, each project will be evaluated by 3 independent experts, appointed according to the specific characteristics of the applicants from the pool of External Experts. Your project will be evaluated within the following awarding criteria:

EXCELLENCE will evaluate:

- **Ambition:** Applicants have to demonstrate to what extent the proposed Solution Development (use case) project contributes to the ICOS project scope, has a European dimension and is beyond the state of the art. Applicants have to describe the innovative approach behind the proposal (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models) that they plan to implement ICOS in new extended domains.
- **Innovation:** applicants have to provide information about the level of innovation within their sectoral domain and about the degree of differentiation that this project will bring.
- Soundness of the approach and credibility of the proposed methodology.

IMPACT will analyse:

- **Market opportunity:** applicants have to demonstrate a clear idea of what they want to do and whether the new/improved product (use case/service) has market potential, e.g. because it solves a problem for a specific target customer.
- **Competition:** applicants have to provide information about the degree of competition for their particular use case/service and if the idea is disruptive and breaks the market. i.e. the use case/services to be brought to market can be clearly differentiated from the competition.
- **Commercial Strategy and Scalability:** applicants have to demonstrate the level of scalability of the new/improved product (use case/service) meaning by not addressing a specific problem but able to be commercialised to solve a structural problem in their specific sector/process/etc. of application.
- **Environmental and Social Impact:** applicants have to demonstrate the project contribution towards environmental, social and economic impacts to contribute to sustainable development, Green Deal and other European policies.

IMPLEMENTATION will consider:

- **Team:** applicants have to demonstrate their management and leadership qualities, their ability to take a concept from ideas to market, their capacity to carry through their ideas and understand the dynamics of the market they are trying to tap into. The team should be a cross-functional team, with a strong background and skills base and taking into account its gender balance.
- **Resources:** Demonstrate the quality and effectiveness of the resources assigned in order to get the objectives/deliverables proposed.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	18 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

The evaluators will score each award criterion on a scale from 0 to 5:

- 0 = Proposal fails to address the criterion or cannot be assessed due to missing or incomplete information.
- 1 = Poor – criterion is inadequately addressed or there are serious inherent weaknesses.
- 2 = Fair – proposal broadly addresses the criterion, but there are significant weaknesses.
- 3 = Good – proposal addresses the criterion well, but a number of shortcomings are present.
- 4 = Very good – proposal addresses the criterion very well, but a small number of shortcomings are present.
- 5 = Excellent – proposal successfully addresses all relevant aspects of the criterion. Any shortcomings are minor.

Each evaluator will produce an Individual Evaluation Report. The **threshold for individual criteria** will be 3. The **overall threshold**, applying to the sum of the three individual scores, will be 10. The final score will be calculated as an average of the individual assessments provided by the Evaluators.

Ties will be solved using the following criteria. The criteria in order of priority are:

1. The highest score in the Impact Section.
2. Gender balance among the personnel responsible for carrying out the activities.

As a result of the Independent Evaluation, a ‘Ranking List’ will be produced. All proposals obtaining a score above the threshold, will pass to the next phase.

Please note that we need time to process through all the proposals in this phase, so you probably won’t hear back for a while.

4.4 Consensus Meeting

The ‘Selection Committee’ formed at the time of writing this deliverable by [FundingBox](#), [ATOS](#), [UNIVERSITAT POLITECNICA DE CATALUNYA BARCELONATECH \(UPC\)](#), [Ireland’s Centre for Applied AI \(CEADAR\)](#), [Engineering \(ENG\)](#), [Worldsensing \(WSE\)](#) and 3 external experts (in advisory capacity) will decide by Consensus (minimum 2/3 of the votes) the ‘List of Finalists’ and the ‘Reserve List’. The discussion will be based on the ranking obtained as a result of the External Evaluation.

Whilst normally the highest ranked proposals will be selected for funding, the Selection Committee might have fair reasons for objecting to a specific third party, like the alignment with ICOS’ goals and scope, the ability to achieve the highest impact possible, commercial competition, as well as the existence of significant ethical concerns or a potential conflict of interest. In this case, the choice may pass to the next-ranked proposal.¹⁴

The exact number of proposals approved will be decided based on the overall **quality** of the proposals.

¹⁴ Please note that this is not a closed list of reasons.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	19 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status: Final

4.5 What’s next? Subgrant Agreement Preparation and Signature

Before you get started with the ICOS support programme, you need to sign the Subgrant Agreement with the ICOS Consortium.

Prior to signing the Agreement, you should go through the ethics assessment and provide documents regarding your formal status for the legal check process. The ICOS Consortium will verify them to prove your eligibility (for the details please check our [Frequently Asked Questions Document](#)). Please send the requested documents within the deadlines that will be communicated to you. If you fail to deliver them on time, without clear and reasonable justification, we will exclude you from the further formal assessment and you will be replaced with the company from the ‘Reserve List’.

5 Our Support Programme and Payment Arrangements

Once your eligibility has been confirmed following the formal check and the Subgrant Agreement has been signed, you will become an official grantee of the ICOS support programme.

The programme will last up to 12 months and consists of three stages:

Stage 1: Requirements & Design	1 Month
Stage 2: Divide level implementation of ICOS	5 Months
Stage 3: Application-scale demonstration	6 Months
Total:	12 Months

Figure 3: Project stages

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	20 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

5.1 Payment schedule

As a selected grantee, you will receive a fixed lump sum¹⁵ of up to €200 000, divided as follows: up to €150 000 to the Tech Provider and up to €50 000 to the End User.

	Solution development projects				
	Stage duration	Deliverable	Fixed lump sum		
			Tech Provider	End-User	TOTAL
Stage 1 Requirements & design	1 month	Design of sectoral application	Up to 20,000 €	n/a	Up to 20,000 €
Stage 2 Device level implementation of ICOS Platform	5 months	ICOS implementation at new sectors (device level)	Up to 10,000 €	Up to 10,000 €	Up to 20,000 €
			Up to 45,000 €	Up to 15,000 €	Up to 60,000 €
Stage 3 Application-scale demonstration	6 months	Development of new sectoral service based on Stage 2 implementation	Up to 52,500 €	Up to 17,500 €	Up to 70,000 €
			Up to 22,500 €*	Up to 7,500 €*	Up to 30,000 €*
TOTAL	12 months		Up to 150,000 €	Up to 50,000 €	Up to 200,000 €

*The date and amount associated to this payment are subject to receiving the funds from the European Commission (payment of the balance)

Figure 4: Stages and payment schedule

Please note: Delayed payment mechanism will be implemented for each payment tranche. 15% of each payment tranche will be paid approximately six months after the end of the ICOS project. The expected end of ICOS is August 2025. It's important to note that despite the delayed payment mechanism, the ICOS support program must still be completed within the designated time frame, and all milestones must be achieved to receive the full grant amount.

5.2 Review process

Grantees selected will define, at the beginning of the support programme, together with the technical mentors allocated, their 'Individual Mentoring Plan' (IMP)¹⁶. At the end of each milestone, an exhaustive review process will be implemented by the technical mentors in order to pay the grantees against the validation of the deliverables and KPIs pre-defined in IMP. The Selection Committee will take the final decision, and approve the payments.

Please note: All the developed technology **to be integrated in the ICOS architecture** must be open source. Results are owned by the beneficiaries that generate them.

The Open Call Sub-Grant Agreement will introduce provisions concerning joint ownership of the results within the ICOS project, if applicable. This will be assessed and negotiated on a case-by-case basis.

For a more detailed payment schedule please check the [FAQ](#).

¹⁵ The lump sum is a simplified method of settling expenses in projects financed by Horizon Europe funds. This means that as the grantee, you will not be required to present strictly defined accounting documents (e.g. invoices) to prove the costs incurred (e.g. invoices). However, you will be obliged to demonstrate that the project implementation is in line with the set milestones (i.e. KPIs/Deliverables) (see [FAQ](#)), which will be defined in the Individual Mentoring Plan at the beginning of the programme. We will carefully assess your progress and the quality of your work during Interim Reviews, not your accountancy. The lump sum method does not exempt you from collecting documentation to confirm the costs under fiscal regulations.

¹⁶ The Individual Mentoring Plan (IMP) is the document that establishes the individual budget, KPIs, Deliverables and a schedule that will be taken into account when evaluating the Grantees' performance at the Milestones Review. The IMP will be defined by the Grantees, together with the technical partners, at the beginning of the Support Program and validated by the Selection Committee.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	21 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

6 Contact us

6.1 How can we help you?

If you have any questions regarding the application process, please feel free to post them on the [Helpdesk Space](#), or send us a message at icos@fundingbox.com. In case of any technical issues or problems, please include the following information in your message:

- Your username, telephone number and your email address;
- Details of the specific problem (error messages you encountered, bugs descriptions, i.e. if a dropdown list isn't working, etc.);
- Screenshots of the problem.

6.2 Complaints

If you believe that a mistake has been made after receiving the results of one of the evaluation phases (when foreseen), you may submit a complaint. To do so, please email us your complaint in English at icos@fundingbox.com and include the following information:

- Your contact details, including email address,
- The subject of the complaint,
- Information and evidence regarding the alleged breach.

You have **3 calendar days** to submit your complaint, starting from the day after the communication was sent. We will review your complaint within seven calendar days of its receipt. If we need more time to assess your complaint, we will notify you by email of the extension. Please note that we will not review anonymous complaints or complaints with incomplete information.

Please be aware that the evaluation is conducted by experts in the relevant field, and we do not interfere with their assessment. Therefore, we will not evaluate complaints related to the results of the evaluation other than those related to the mistakes in the evaluation of the “first admissibility and eligibility check” criteria.

7 Last but not least - final provisions

Any matters not covered by this guide will be governed by Polish law and rules related to the Horizon Europe and EU grants. Please take into account that we make our best effort to keep all provided data confidential. However, for the avoidance of doubt, you are solely responsible to indicate your confidential information as such.

Your IPR will remain your property.

For the selected grantees, the Subgrant agreement will include the set of obligations towards the European Commission (for example: promoting the project and giving visibility to the EU funding, maintaining confidentiality, understanding potential controls by the EC/ECA, EPPO and OLAF).

The ICOS Consortium might cancel the call at any time, change its provisions or extend it. In such a case we will inform all applicants about such change. Signature of the SubGrant agreement is an initial condition to establish any obligations among applicants and any Consortium partners (with respect to the obligation of confidentiality of the application).

Did not find what you were looking for? You may want to check our [Frequently Asked Questions](#).

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	22 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

8 Extra hints before you submit your proposal

A proposal takes time and effort and we know it. Here are some few crucial points you should read before submitting your proposal:

- Is your project in line with what ICOS is looking for? You are not sure? You can consult this [section](#) and this [one](#).
- Did you present your project in a way that will convince evaluators? Not sure if you did? Go back to this [section](#).
- Is your project fulfilling all eligibility requirements described in the Guide? Check again this [section](#).
- Are you sure you are able to cope with our process of the SubGrant agreement signature and payment arrangements for selected proposals? You may want to go over this [section](#).
- Did you check our SubGrant agreement Template? You didn't? Check it here.
- Do you need extra help? [Contact us](#)

And as a bonus: You can read our [R.E.C.I.P.E. for an outstanding European Funding Opportunity application](#) for additional advice. Good luck!

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	23 of 77	
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

Annex A: ICOS architecture White Paper

Motivation and objectives

A continuum, today also referred to as Cloud continuum, IoT continuum, Edge-to-Cloud or Fog-to-Cloud, is expected to provide the means for workloads execution and data processing both in the Edge and the Cloud. According to International Data Corporation's (IDC) forecast, the total Edge spending in the EU will reach 75 billion dollars by 2026. In Europe, Edge computing is expected to increase at an annual growth rate of 26,5%, from €815m in 2020 to €2.6bn in 2025^{17,18}. Ensuring the security of data at the Edge as well as setting-up and maintaining an Edge infrastructure that can support highly demanding workloads are among the main barriers to the Edge adoptions in the enterprises¹⁹.

Despite the intensive research activities and clear industrial trends in this field, performance and efficiency of resource usage as well as contextual intelligence of a continuum, remains a daunting challenge. This is not only due to the continuum being intrinsically heterogeneous, volatile, distributed and increasingly cognitive, but also due to the emerging request to be open and collaborative. Networking, AI, green computing and parallel processing are just some of the further research topics that need to be leveraged in order for the continuum to become mainstream.

There is a real need for an integrated platform to unleash the potential of European providers across the continuum. Currently missing from the Edge-Cloud scape is an open, non-proprietary, interoperable, robust, secure, sustainable multi-Cloud and multi-Edge continuum hosting solution, aimed at optimising the execution of workloads, especially in data intensive applications, and able to adapt to different strategies (e.g., execution time reduction, concurrent execution, Edge processing, fog security, locality, high resource utilisation, low latency and high energy efficiency), while being scalable, extensible and open to experimentation.

ICOS pushes the envelope towards the next generation of continuum management by proposing a high-level meta operating system (metaOS) to realise an extensible, open, secure, adaptable, AI-powered as well as well highly performant and technology agnostic continuum.

¹⁷ Rowan, Brendan, Álvarez, José Enrique, & Kušíková, Zuzana. (2023). Technology scoping paper (1.0). Zenodo. <https://doi.org/10.5281/zenodo.8020703>

¹⁸ Worldwide Edge Spending Guide (2021). IDC. https://www.idc.com/getdoc.jsp?containerId=IDC_P39947

¹⁹ Future Enterprise Resiliency and Spending Survey (2022). IDC. <https://www.idc.com/getdoc.jsp?containerId=US48925022>

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	24 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

ICOS continuum will contribute to an open ecosystem, enabling interoperability with existing and emerging frameworks, towards a collaborative European Edge market scenario. It will provide new opportunities to European actors to establish.

The ICOS project will design, develop and validate a meta operating system for the continuum built upon the principles of openness, adaptability, data sharing and a future Edge market scenario, addressing the challenges of: i) devices volatility and heterogeneity, ii) continuum infrastructure virtualization and diverse network connectivity; iii) optimised and scalable service execution and performance, as well as resources consumptions, including power consumption; iv) guaranteed trust, security and privacy, and; v) reduction of integration costs and effective mitigation of Cloud provider lock-in effects.

The ICOS Architecture

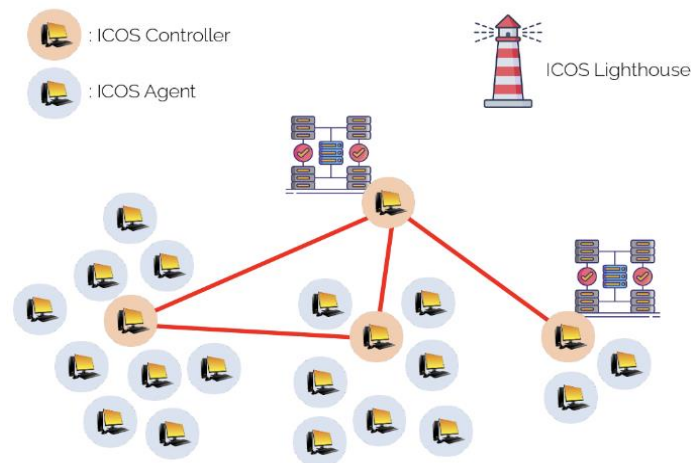


Figure 1: ICOS continuum nodes

ICOS has been conceived as a dynamic metaOS distributed along the continuum. The major design principle in ICOS leverages the capabilities of both the Cloud (virtually unlimited computing and storage capacity, ubiquity) and the Edge (locality exploitation, latency and communication reduction, privacy preservation), to optimise both the usage of resources and the performance of the users' workloads. One of the most interesting characteristics of ICOS is its elasticity, being able to manage dynamic and mobile nodes efficiently and seamlessly. Thus, nodes can join or leave the system dynamically, or move throughout the continuum, establishing new proximity-based relationships between other nodes in different geographic locations. To realise these scenarios, two types of nodes will compose the continuum (Figure 1): the **Agents** that execute the users' workloads, and the **Controllers** that are responsible for managing the agents. The architecture also includes a 'Lighthouse' functionality to simplify and automate the dynamic on-boarding, disconnection, re-connection and migration of ICOS Agents to ICOS Controllers.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	25 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

ICOS Agents are distributed along the continuum, ranging from constrained computation devices at the far Edge to high performance computing resources at the Cloud level. IoT and storage devices are attached to Agents, so both data access and computation of users' workloads are executed on Agents. The ICOS metaOS has been designed to be able to provide a very large number of heterogeneous Agents distributed over a wide geographical area. In order to efficiently manage such a huge number of nodes while exploiting the advantages of locality, a set of ICOS Controllers should be deployed along the continuum to cover the whole geographical area. ICOS Controllers are distributed with a flat, unstructured organisation. ICOS will run both on Agents and Controllers realising a unique, distributed Continuum middleware.

The ICOS conceptual architecture is built on four functional layers (Figure 2): the Distributed Meta-Kernel Layer, the Intelligence Layer, the Security Layer and the Data Management Layer. All layers are distributed along the ICOS Continuum providing functionalities at node level (e.g., node security assessment) as well as at continuum level (e.g., global workloads deployment optimisation). This widely distributed approach allows to decentralise the management of the continuum, reduce data transfers, ensure privacy and better exploit computational resources at the Edge without the need for a central point of control. An additional module, referred to as ICOS Shell, includes the user interfaces and the tools to interact with the ICOS continuum.

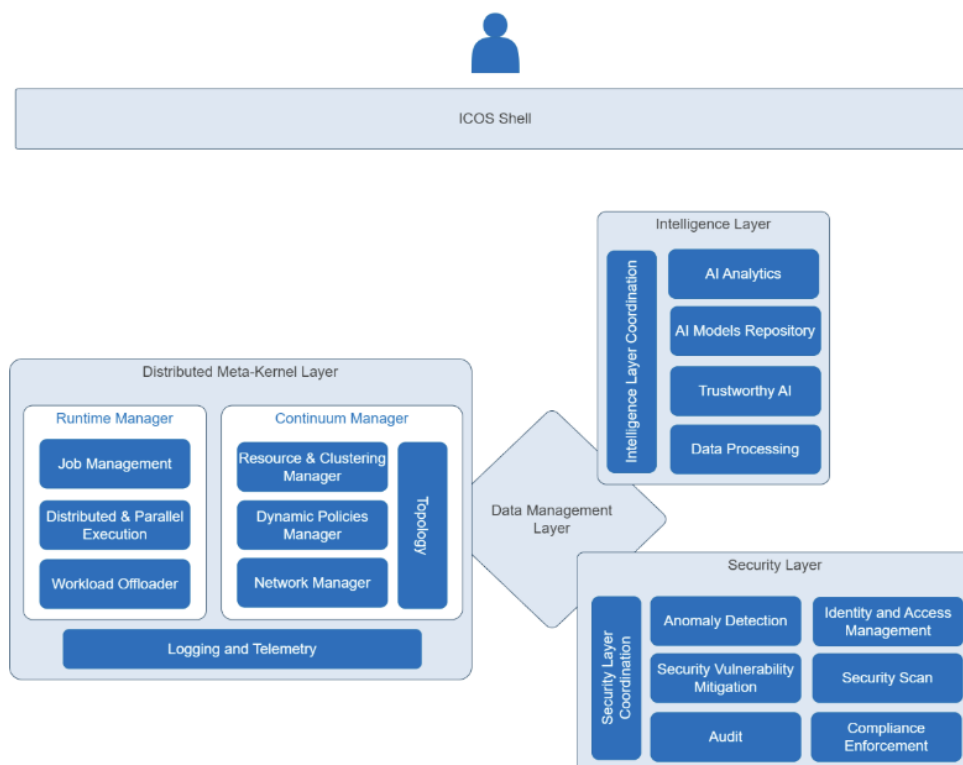


Figure 2: The ICOS conceptual Architecture

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	26 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

The **Distributed Meta-Kernel Layer** provides the base functionalities necessary to make Cloud and Edge resources manageable and ICOS-ready: the set-up and maintenance of an ICOS Continuum, and the execution of user's workloads. Key modules of this layer are described next.

The Continuum Manager is responsible for: i) registering and configuring resources (Cloud resources and Edge devices) to the Cloud Continuum; ii) discovering, labelling, and classifying the Edge devices and the IoT devices; iii) enabling the infrastructure and operational aspects to fulfil the remote execution of the user's workloads on the ICOS Continuum, and; iv) monitoring the status of the continuum and enforcing system and application policies.

The Runtime Manager is responsible for ensuring the underlying devices to fulfil execution requests from the upper layers of the ICOS metaOS (i.e., the ICOS Shell). The Runtime Manager components will: a) convert the service execution request into a workflow of tasks and generate an execution strategy; b) distribute the execution of tasks into multiple devices and orchestrate their execution; c) enforce optimal allocation policies and react to anomalies adapting the execution, and; d) ensure that the user workload is performing according to the expected Service Level Agreement (SLA) criteria. These functionalities are realised thanks to a joint collaboration of three main components: the Job Manager, deployed in the ICOS Controllers and receiving execution requests; as well as the Distributed & Parallel Execution and the Workload Offloader both deployed in the ICOS Agents and controlling the actual execution.

The Logging and Telemetry facilitates the collection of telemetry from the whole continuum, providing vertical application operators with a single view of performance, errors, logs, and component availability. Its goal is to effectively run and operate an end-to-end, multi-tenant, easy-to-operate and scalable observability system on the ICOS metaOS. The component enables the ingestion, long-term storage, and use of common observability signals, such as Quality of Service (QoS) metrics of applications and resources, logging and tracing from the entire continuum under a single consistent system with well-defined tenancy APIs and signal correlation and prediction (using the functionalities of the Intelligence Layer) capabilities. Monitoring a large and diverse set of distributed computing resources and software, generates a large amount of data of various types and may require these data to be analysed, pre-processed, and aggregated if necessary, and transmitted from Edge nodes / IoT devices where monitored services are deployed to locations where end-to-end services and resources management decisions are made. To prevent resource and application monitoring data from further contributing to the data overload, intelligent mechanisms will be implemented by the Monitoring and Telemetry component to automatically and dynamically decide what data to collect (i.e., what type of monitoring data to measure), the granularity of the data (i.e., what level of information to collect for a given item), and the frequency of the data (i.e., the interval between two collections for a given item).

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	27 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

The **Security Layer** is responsible for guaranteeing the security of ICOS users, resources, and applications at all times. It includes modules for authentication and authorization operations in the system, assess security of resources and applications and suggest mitigation actions, proactive discovery of anomalous behaviours and verification of the compliance of resources and applications. The main modules of this layer are introduced next.

The layer is coordinated by the Security Layer Coordination module that provides a unified interface for interacting with the Security Layer functionalities. It also manages data flows inside the layer and provides additional logic needed for seamless interactions between Security Layer's modules (e.g., task scheduling and periodic tasks).

The Anomaly Detection module is responsible for detecting anomalies in system and application logs. The Anomaly Detection module follows two workflows. The first workflow is a typical log-based anomaly detection workflow, consisting of log template extraction, learning normality, and anomaly detection²⁰. The second workflow is the time series models using the numerical features extracted earlier from log-templates.

The Security Vulnerability Mitigation module operates based on rule triggering by which fulfilment of a certain rule initiates the execution of a certain recovery or mitigation processes. The latter can either be fully independent and automated or require the user's input. The basic rules and responses are pre-defined in static maps that can be further modified by the end user and also the Intelligence layer's AI Analytics module will offer further mitigation strategies and rules.

The Audit module is responsible for executing a series of light-audit checks, defining specific checkpoints that need to be passed to consider the audit successful. Those checkpoints explore different aspects of the Cloud Continuum realisation and take place upon the on-boarding of any infrastructure, ICOS element and resource. The goal of the component is to identify potential vulnerabilities and risks, either during on-boarding or when triggered during runtime by the Security Coordination Module. Furthermore, it can assist in developing a security compliance checklist that may be tailored to each deployed application.

The Security Scan actively checks for security issues within deployed ICOS resources (at runtime and potentially at the design time²¹), detects issues and recommends mitigations

²⁰ Jan Antić, Joao Pita Costa, Aleš Černivec, Matija Cankar, Tomaž Martinčič, Aljaž Potočnik, Gorka Benguria Elguezabal, Nelly Leligou, & Ismael Torres Boigues. (2023, May 15). Runtime security monitoring by an interplay between rule matching and deep learning-based anomaly detection on logs. <https://doi.org/10.5281/zenodo.7937448>

²¹ Matija Cankar, Nenad Petrović, Joao Pita Costa, Aleš Černivec, Jan Antić, Tomaž Martinčič, & Dejan Štepec. (2023, April 15). Security in DevSecOps: Applying Tools and Machine Learning to Verification and Monitoring Steps. ICPE '23 Companion: Companion of the 2023 ACM/SPEC International Conference on Performance Engineering, April 2023 (ICPE). <https://doi.org/10.1145/3578245.3584943>

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	28 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

and/or recovery processes (with help from the Security Vulnerability Mitigation module). The module may be called by the Audit module in case a security audit is to be enforced.

The Compliance Enforcement module is responsible for defining (and, in general, managing) security compliance policies for resources and applications in the ICOS System, automating the verification of the active policies and triggering remediation activities for compliance violations. Compliance Enforcement will work in conjunction with the Security Vulnerability Mitigation module for the definition of remediation activities.

The Identity and Access Management module has the overall objective of ensuring that the right people will have access to the right resources in the system. The three main responsibilities of this module are, the management of the users and their roles/permissions, the authentication of the users and the authorisation of the requests within the system. All ICOS components will rely on this module to make sure that the received requests are properly authenticated (the requesting entity is known, and it is confirmed that it is who it says to be) and authorised (the requesting entity has the requested privileges to do that request).

Trust and Privacy are fundamental principles on top of which the Security Layer, and the entire ICOS metaOS, is built. Trust will be implemented at the system-wide scale using a communication protocol that enables automated and assisted distributed systems to publish secure data which can be subscribed to by the safety monitoring ICOS system (both TLS and mutual TLS transport protocols). The safety monitoring system could run on the same virtual or physical ICOS controller (i.e., computer/device, a separate computer/device on the IoT network or a remote computer at the Edge or in the Cloud). Privacy comprehends a set of fundamental elements which can be utilised for transforming data, including encryption and anonymisation. The anonymisation is a part of the Data Management and Intelligence layers. In the case of the former, data stored might need to be anonymised to ensure compliance with the GDPR's specific component requirements. The Intelligence layer contains the data processing module, which aggregates different functions to anonymise data. Additionally, another part of this functionality is to ensure information encryption in communication and storage by using internal SSL/TLS certificates.

The **Intelligence Layer** has the objective of bolstering and enhancing the functions and efficacy of the security and meta-kernel layers. It is responsible for delivering capabilities to facilitate the training, testing, deployment, maintenance, and updating of analytical and machine learning models across data-intensive applications in the Edge/Cloud spectrum, while adhering to particular data and model usage policies, focusing on ensuring trustworthiness. Next, the key modules of the Intelligence Layer are presented.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	29 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

The layer is coordinated by the Intelligence Coordination module that provides a unified interface for interacting with the Intelligence Layer functionalities. It also coordinates the internal modules to fulfil the incoming requests.

The Data Processing module aggregates libraries and frameworks to allow data processing and transformation at scale in various devices, ranging from Cloud to low-end devices and user applications using the ICOS metaOS. It allows data Access & Storage and preprocessing using the Data Management module (batch, stream, local, remote).

The AI Analytics module aggregates libraries and algorithms to train and forecast using state-of-the-art methods to achieve a smart meta-kernel and support the project ML use cases.

This component comprises a selected stack of streamlined machine learning algorithms and pipelines tailored to train and test predictive and optimisation models. It encompasses deep learning, adaptive and static batch machine learning, traditional machine learning, transfer learning and reinforcement learning libraries optimised to function efficiently on constrained devices. It considers models for both structured (e.g.; time-series) and semi (nested objects) or unstructured data (Text, Images). Advanced techniques, such as transfer learning, are to be considered in the second version of the module. The AI Analytics module will enable the proliferation of Artificial Intelligence/Machine Learning (AI/ML) algorithms aiming to empower autonomous network management, heavily facilitating, and automating the orchestration of the network resources. Automatic management of AI/ML workflows and life-cycles can act as a significant subcomponent towards zero-touch automation.

The ICOS Model Repository offers a collection of pre-trained analytics and ML models that may be reused, updated, modified (e.g., transfer learning), and integrated to promote the deployment of novel AI approaches across the ICOS metaOS layers. It includes capabilities for training and compressing these models for being used in constrained devices. This repository will make it easier to store pre-trained models of different versions that can be pulled and integrated with the existing infrastructure. The management of all algorithms and libraries used in the various metaOS versions will be possible thanks to this repository, which also supports seamless collaboration, repeatability, and strong version control of the models.

The Trustworthy AI module addresses data privacy issues by using federated learning and data anonymization. Additionally, it provides functions to make models explainable and transparent, explaining what leads to a decision or a forecast.

Its goal is to provide specific algorithms to analyse the datasets and develop models while maintaining the utmost respect for privacy and trustworthiness policies. This can be done by allowing models to be trained in a federated learning fashion to ensure data protection in datasets containing user-specific data and by providing explainable AI algorithms that give meaningful insights into the output of models to the different layers in ICOS. Therefore, this component can be organised two-fold: 1) to ensure trustable, secure & robust model training

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	30 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

via federated learning techniques, and 2) to provide model explainability through a series of AI interpretability algorithms, to aid the decision-making process of the models while understanding inputs and outputs. Both explainable AI methods and the ability for models to be trained via federated learning will be made available to provide data security in datasets, including user-specific data. This will give the various ICOS layers confidence in the models' output.

The **Data Management Layer** enables the communication between the different layers abstracting over the distribution of the system. Its main functionality is to ensure that the required data is available in those devices where it is needed and at the time that it is needed, to efficiently support ICOS operations. This layer will abstract infrastructure and communication details, so that the rest of ICOS components can focus on their specific functionalities and remain agnostic of the dynamicity and heterogeneity of the infrastructure. In addition, unnecessary data transfers will be avoided to reduce network congestion and increase overall performance of the platform. This layer also ensures that all data transfers between devices, as well as data at rest, are confidential.

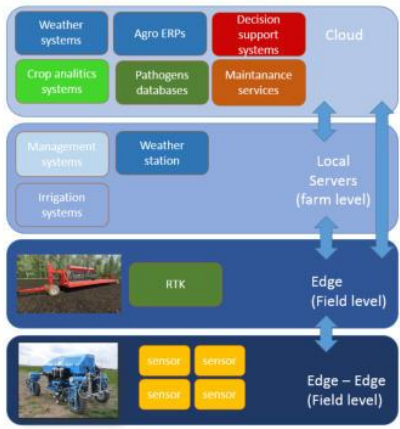
In addition to the four layers, the **ICOS Shell** layer will allow users to interact with ICOS (e.g., infrastructure providers to manage their infrastructures, system integrators to manage their applications). The ICOS Shell will consist of three main components: the command line interface (CLI), the graphical user interface (GUI) and the development and operations (DevOps) tools. The Shell will be able to integrate with other tools and pipelines through support for machine-readable input and output.

Early Adopters: the project's Pilot Cases

The ICOS project includes four pilot cases that play an important role in the project, summarised in two critical aspects. First, pilot cases will provide functional and non-functional requirements for the ICOS System and, second, they will be early adopters of the system providing essential feedback on how to improve it. At the same time, the adoption of ICOS will enhance the pilot cases with unique application deployment and runtime management features implemented by ICOS.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	31 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status: Final

Agriculture Operational Robotic Platform



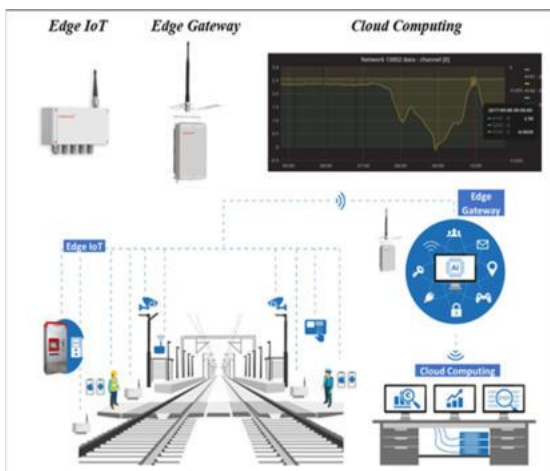
The Agriculture Operational Robotic Platform (AORP) is an agro robot that can execute different tasks and missions, like sowing and tending crops, removing weeds, monitoring crop development, and identifying threats. The platform moves autonomously through the field, performing the assigned missions. The robotic platform consists of control and driving modules. In addition, it is equipped with interchangeable tools - a seeder and a sprayer. The AORP is equipped with cameras, sensors and Edge computational devices that can be connected to the Cloud directly, via the transport platform, or via farm connectivity.

The **challenges** expected to be addressed in this pilot by ICOS are:

- Delays in accessing data affecting the limitation of field robots operating speed.
- Edge to Cloud orchestration of applications according to processing, or time requirements, improving the coexistence of real-time processing and coordination with Cloud services.
- Challenges in connectivity in real conditions and continuous monitoring of device operation.

The **benefits** expected by introducing the ICOS metaOS will be the reduction of the latency in decision taking by combining the computing capabilities on Edge and Cloud, the improvement of the AI models used during the missions, increasing the overall system availability, and the introduction of predictive maintenance in the AORP.

Railway Structural Alert Monitoring system



Today, the railway monitoring process is quite archaic. For most railway operators the inspection is done through physical inspections by railway staff or with a special train with sensors on its wheels which runs through the whole rail system. Unfortunately, with these methods, measurements are taken only once or twice a year; in the remaining months, nobody knows what happens, and moreover, there is no established procedure to evaluate the cost-effectiveness of the actions taken to address the identified rail line issues. That is where the IoT devices provided by [Worldsensing](#) can minimise

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	32 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

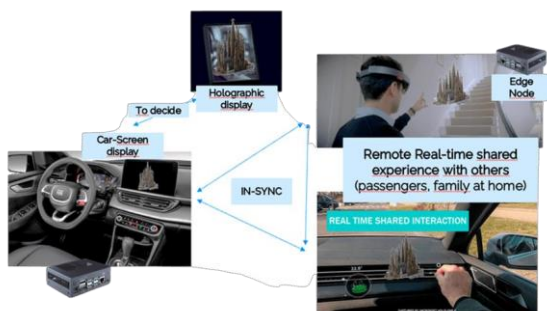
the monitoring and maintenance costs and allow operators to monitor in real-time important aspects like: rail tracks levelling, tensions and slope, surrounding areas settlements and falling elements, catenaries maintenance, cyber processes monitoring, etc.

The **challenges** expected to be addressed in this pilot by ICOS are:

- Implement energy-efficient solutions for low-power IoT devices to guarantee safety operation monitoring in real time while ensuring a very long lifetime of the deployed technology in remote locations. Improve raw data transmission and balance processing between the Edge and Cloud.
- Improve wireless networking protocols to achieve reliable system operation in remote locations while ensuring connectivity management for the whole ICOS continuum.
- Edge to Cloud orchestration of several applications according to complexity, processing, or time requirements while using the same devices deployed and improving the coexistence of real-time processing and coordination with Cloud services.

The **benefits** expected in this pilot case by adopting the ICOS metaOS will be a reduction of latency in decision taking (because some decisions will be taken at Edge level), an increase in the overall availability of the system, and an improvement in the data security.

In-car Advanced Infotainment and Multimedia Management system



In-car services are crucial for establishing a positive business case for the development of connected and autonomous vehicles. Mobility is changing, making vehicles an integral part of the customer digital world (or life): as vehicles become increasingly tech forward, the experience will expand beyond the screen to delight all the senses. The rise of autonomous and connected cars will also generate new demand for in-car infotainment and

entertainment. The automotive pilot will offer innovative media content and services focused on tourism to enhance the user experience while travelling in a car and getting to know and explore new places. In more detail, this pilot case will provide the user with an in-depth tailored experience about the place they are visiting, showing the tourist extra information and knowledge around that new area in an immersive way. The possibilities of this technology will be exploited not only for interaction between users inside the car but also for others remotely.

The **challenges** expected to be addressed in this pilot by ICOS are:

- Ensure seamless user experience by optimising the distribution of multimedia content and maintaining high levels of quality of service (QoS) and quality of experience (QoE) also in case of low connectivity.
- Provide secure multiuser communication and interaction infrastructure able to ensure privacy and security of shared data.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	33 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

The **benefits** expected by the introduction of ICOS will be an optimised distribution of multimedia content so that high-quality reception can be achieved even in low-connectivity situations while avoiding service interruptions. Energy optimization with consequent impact on cost and sustainability are further taken-away expected by the innovative solution.

Energy Management and Decision Support system



The SSEA pilot aims at providing an Energy Management and Decision Support System (EMDS), using the ICOS continuum with data collected from five smart homes. Each house will be equipped with smart technology which may include Micro-generation systems: PhotoVoltaics (PV) or Wind Turbines, Electric Vehicles (EV), Heat pumps, Home energy storage, and Smart meters.

Real time energy consumption will be measured with the use of inductive power monitoring clamps (IoT devices), that will send the collected data to an Edge device installed in the house managed by the ICOS metaOS.

The energy management system will generate personalised and optimised energy suggestions tailored to customer needs based on AI models and sustainable solutions. The AI will dictate when/how energy will be used/produced/stored, with hyperparameters adapting or updating through reinforcement and/or federate learning. The customers should be able to track improvements between actual vs optimised costs to build their trust in the energy management system.

The **challenges** expected to be addressed in this pilot by ICOS are:

- Provision of secure solutions, where data protection and data security must be ensured throughout all stages, including data collection, analysis, storage, and processing.
- Provision of customised, innovative solutions for optimal energy usage, and increase of self-consumption to pave the path towards households net zero emissions.
- Ensure viable and sustainable real time solutions in all settings including areas of poor connectivity.

The **benefits** expected by the introduction of ICOS will be the delivery of secure and efficient energy management systems based on advanced and reliable Machine Learning techniques for energy forecasting and home-to-home parameters sharing to avail of learnings obtained in other houses. Thanks to ICOS, the application will be able to leverage Cloud and Edge capabilities for real time solutions, with latency reduction, increased security and flexibility to tailor to customers' specific needs, increasing client satisfaction and retention.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	34 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

Roadmap

The ICOS project started in September 2022 and will end in August 2025. The project follows an iterative development approach that includes analysis, design, implementation, integration and validation phases for each iteration. The project just concluded the first analysis phase and defined the **first version of the ICOS Architecture in May 2023** that is presented in this white paper. The fully detailed architecture is documented in the project's deliverable D2.2²².

In May 2023 the project started the first iteration for the design and **implementation** of the overall system. The project aims at implementing a first set of integrated functionalities that can be validated and prove the value of the ICOS metaOS.

In September 2023 the project will launch its **first Open Call** to select 5 solution development projects to enrich the capabilities and functionalities of the ICOS metaOS. ICOS allocated 1M€ budget for these new projects. The selected projects will implement their solutions in the course of 2024.

In November 2023 the first release of the ICOS metaOS (**alpha version**) is expected. It will consist of a deployable and working system that will be validated in the project's early adopters pilot cases.

In February 2024 the first **validation** report from the pilot cases will be available. This will be an important milestone for ICOS since it will provide feedback that can help the project to improve and enrich the functionalities of the system.

From March 2024 the project will start a **new development iteration** that will bring to the release of two additional refined and enhanced ICOS metaOS releases: the beta version (June 2024) and the final version (April 2025).

In June 2024 the project will launch the **second Open Call** to select 15 ICOS uptake projects to validate the ICOS solution across various domains with a total budget of 900K€. The selected projects will use and validate the ICOS metaOS and will receive support to integrate ICOS in their solutions.

ICOS is part of the [EUCloudEdgeIoT.eu](https://eucloudedgeiot.eu)²³ initiative that promotes the collaboration between research projects, developers and suppliers, business users and potential adopters to realise a **common roadmap** for the understanding, the development and the adoption of the Cloud,

²² D2.2 - ICOS architectural design IT-1 (2023). ICOS project - <https://www.icos-project.eu/deliverables>

²³ <https://eucloudedgeiot.eu/about/>

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	35 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

Edge and IoT (CEI) Continuum in Europe. ICOS is active and will contribute mainly to the Open-Source Management, Architecture, and Market & Sectors task forces.

Who we are

ICOS is a project funded by the European Union’s HORIZON research and innovation programme under the grant agreement N° 101070177. ICOS brings together 22 organisations (7 industry partners, 8 academia and research centres, 6 SMEs, and 1 organisation from the public sector) from 10 European Union countries, Switzerland and Israel. Background and experience of the partners covers different areas and disciplines such as IoT-Edge-Cloud continuum management, AI, Security, OS development, Data Management, Networking and Ethics. This allows a multidisciplinary approach and creates a strong and solid basis for ensuring success of the project’s activities.



- Web | <https://www.icos-project.eu/>
- Twitter | https://twitter.com/icos_project
- Youtube | https://youtube.com/@icos_project
- LinkedIn | <http://linkedin.com/company/icos-project>

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	36 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

Annex B: List of proposed use cases

1 : Large and heterogeneous scenarios with massive deployment of mobile (far) edge/IoT devices

The envisioned use case should challenge ICOS to support a largely dynamic (mobility) set of heterogeneous systems, deployed close to the edge (i.e., far edge and IoT), some of them could be including their own native OS (open AI), running services demanding for large computing and extreme data processing to be optimally distributed within the continuum.

2 : Critical scenarios demanding for distributed execution while supporting strong security/privacy guarantees

The envisioned use case should be built on highly demanding critical services, where the continuum may notably contribute to an optimal execution, while ensuring security provisioning (communication, data, ICOS functionalities, etc.) as a fundamental pillar.

3: Energy-aware framework to cover demands across the whole cloud-to-edge continuum and across different use cases

The envisioned use case must include (preferably extreme) demands regarding energy-awareness, either due to resource constraints or energy scarcity. The use case scenarios might include one or more of the following parameters (or other that are not explicitly mentioned here): energy expenditure due to extensive radio transmissions, resource-hungry computations, constrained memory resources, battery depletion, etc.

4: Cloud-Edge-IoT continuum frameworks for autonomous groups of vehicular nodes

This topic involves the extension of the ICOS meta-operating system for addressing the requirements of task-oriented groups of mobile nodes (such as autonomous Unmanned Sensor Platforms (UxVs) or self-driving cars, different from automated vehicles already ICOS PILOT use case), enabling their coordinated actuation and mobility, via the intelligent distribution of networking and computation tasks along the continuum, for supporting delay critical applications (e.g. Ultra-Reliable Low Latency Communications - URLLC) and dynamic formations (e.g UxV swarms, autonomous car fleets).

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	37 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

5: Hardware Acceleration scenario where intelligence applications will require computing infrastructure that provides Hardware acceleration capabilities

This scenario's objective is to make use of the metaOS capabilities of ICOS in scheduling and optimising the deployment of applications requiring Hardware acceleration features. The scenario may exploit ICOS consortium cloud resources with specific capabilities and/or provide infrastructure that provides it. ICOS agent and controller should be exploited in order to provide the proper mapping of application components to the infrastructure. The applicants are expected to be able to run their own instance of ICOS controller in order to orchestrate their application deployment and operation.

6: Deploy, operate and maintain a highly available and reliable fleet of robotic services across the device-edge-cloud continuum, implementing a SWARM approach across the continuum

This use case should provide ICOS with new capabilities to improve the operation and maintenance of hyper-distributed and autonomous computing resources (compute, network, storage sensors and actuators) implementing a swarm middleware layer. The novelty should be in the way the entire resource ecosystem will intelligently manage and optimise itself.

7: Open Use case

Applicants can present your project, can develop a use case in other vertical from the ones proposed by the consortium ("open" topic), while addressing the deployment of ICOS infrastructure under conditions:

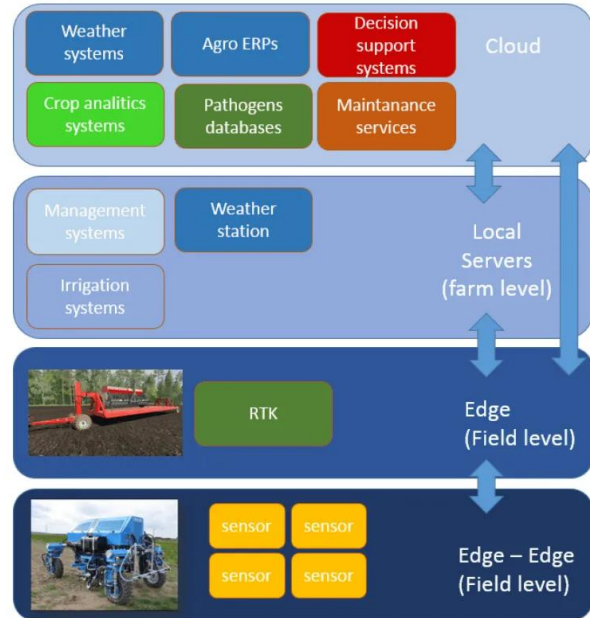
- Applicants should address the deployment of ICOS platform for **improving and optimizing the services** within a specific domain, (**different** from the [pilot use cases](#) of the project):
 - Domains excluded (from the [ICOS pilots](#)): agriculture robotics, railway inspection, automated vehicles, energy management at domestic uses.
 - The project must customize [the platform](#) (from alpha and beta releases) to the service in a specific domain.
 - The project will deploy a specific application in the given domain to operate with the adopted ICOS infrastructure.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	38 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status: Final

Annex C: ICOS PILOT use cases

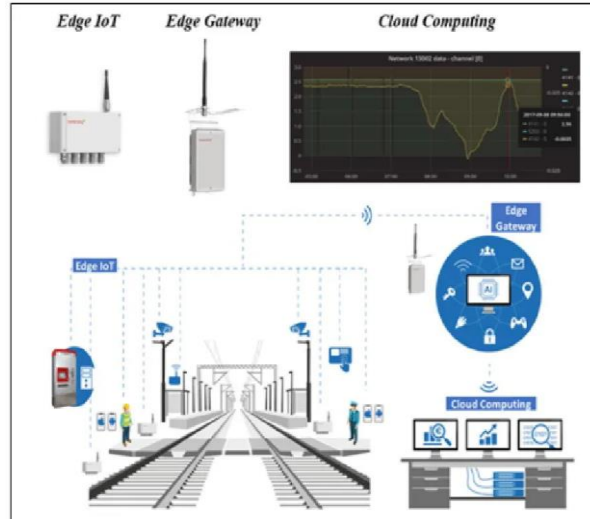
Agriculture Operational Robotic Platform (AORP)

The Agriculture Operational Robotic Platform (AORP) use case optimizes farming with agro robots (Agbots). The use of Agbots for precision agriculture allows the development of processes on farms reducing operating costs, improves awareness of technology potential impact, digital competences, improves effective use of resources as well as reduces the amount of used plant protection products. To achieve these benefits, it is necessary to further develop digital and robotic systems based on data exchange ecosystems and services based on their semantic processing to provide knowledge and tools that will increase efficiency, ensure safety, and confirm product quality in the supply chain, while reducing costs and providing valuable information to farmers.



Railway Structural Alert Monitoring System (RSAM)

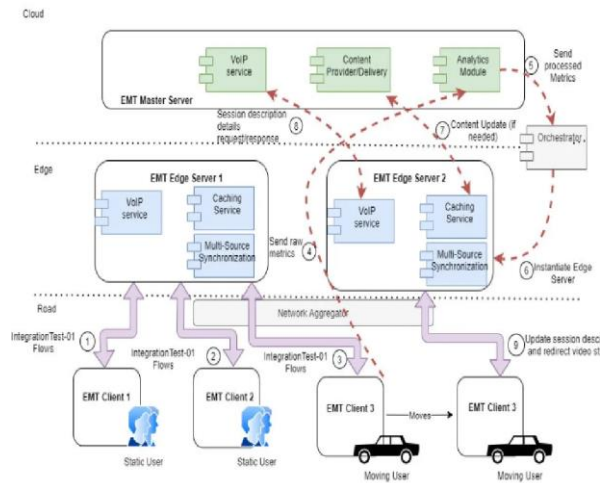
The Railway Structural Alert Monitoring system (RSAM) improves the railway monitoring process. Today the monitoring process is done by a special train, which can measure several key parameters of the railway system. However, this measurement is only taken every few months; in the remaining months, nobody knows what happens. The use of digital technology, such as IoT, aims to minimize the monitoring and maintenance costs by gaining knowledge of the status of key aspects of the railway infrastructure in real-time: rail tracks levelling, tensions and slope, surrounding areas settlements and falling elements, catenaries maintenance, cyber processes monitoring, etc.



Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	39 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

In-car Advanced Infotainment and Multimedia Management system (IAIMM)

The In-car Advanced Infotainment and Multimedia Management system (IAIMM) use case focuses on the main target to optimize the distribution of multimedia content so that highquality reception can be achieved even in low- connectivity situations while avoiding service interruptions. The service provides and enriches multimedia functionalities for planning, enjoying trips and visiting touristic sites. Its deployment architecture includes edge nodes to host rendering and preprocessing and more powerful cloud nodes.



Energy Management and Decision Support system (EMDS)

The Energy Management and Decision Support system (EMDS) use case focuses on the energy consumption in smart homes. Already consumers are investing in smart devices and energy storage to better manage their electricity consumption. Green energy is enabling the transition to smart homes through active participation in, and support of, ESNB's SMART meter programme and the installation of solar PV, solar thermal, smart heating controllers and EV chargers through Airricity Energy Services. The planned enablement of domestic services to support the distribution network will further drive uptake in smart, controllable domestic devices which can leverage payments for flexible energy usage.



Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	40 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

3 Frequently Asked Questions (FAQ)



Frequently Asked Questions

1st Open Call

Submission starts on **28th of August 2023 at 9:00** (CEST)

Deadline is on the **2nd of November 2023 at 17:00** (CET)

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	41 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

Executive summary	3
What is ICOS?	3
Why should you apply?	4
Who can apply?	4
What is a technology provider?	5
Who is considered to be an End User?	5
Can I submit my application if my company is not yet established?	6
What are the ICOS PILOT Use Cases?	6
What type of activities can be funded?	6
What is TRL?	7
What happens if I do not submit my application within the deadline?	7
How long does it take to fill in the application?	7
Can a company submit two project ideas?	7
What are the evaluation phases?	8
What are the different evaluation phases and the expected schedule?	8
What is an SME?	9
What is a Midcap?	9
How will we check your SME/Midcap status?	10
What are the payment conditions?	10
What is the payment schedule?	11
Is any accountability required on the way the funds have been used? Are there any specific restrictions on how the funds are utilized?	12
Which are the eligible costs for my proposal?	12
Is there any limitation in the budget for subcontracting	13
What is a Conflict of Interest?	13
Who owns the Intellectual property rights (IPR) of my project?	14

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	42 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status: Final

Executive summary

Welcome to the ICOS Frequently Asked Questions (FAQ). The following information is intended to provide you with additional information about the ICOS 1st Open Call and Support Programme. Please remember that this is a complementary document for the Guide for Applicants that you should read first. The FAQ will be updated regularly based on the questions we receive during the open call application period. If you cannot find the answer to your question here, you can submit your question(s) to our helpdesk: icos@fundingbox.com OR directly through the community:

<https://spaces.fundingbox.com/spaces/iot-edge-community-icos-helpdesk>

What is ICOS?

ICOS (<https://www.icos-project.eu/>) is a project funded by the European Commission under the topic: [HORIZON-CL4-2021-DATA-01-05](#). Project is embedding a well-defined set of functionalities, ending up in the definition of an IoT2Cloud Operating System (ICOS).

The main objective of the ICOS project is to design, develop and validate a meta operating system for a continuum²⁴, by addressing the challenges of: i) devices volatility and heterogeneity, continuum infrastructure virtualization and diverse network connectivity; ii) optimized and scalable service execution and performance, as well as resources consumptions, including power consumption; iii) guaranteed trust, security and privacy, and; iv) reduction of integration costs and effective mitigation of cloud provider lock-in effects, in a data-driven system built upon the principles of openness, adaptability, data sharing and a future edge market scenario for services and data.

We envision a holistic approach towards the solutioning of this technology trend in future systems, by architecting, designing and implementing the continuum as extensible, open, secure, adaptable, AI-powered as well as well highly performant and technology agnostic, managed through a meta OS, i.e., IoT2Cloud Operating System (ICOS).

Why should you apply?

If you are eligible to apply (see below under “who can apply”) and interested in what the ICOS 1st Open Call offers:

1. support programme in a duration of 12 months for 5 selected projects; that will be
2. financed with up to **200,000 €** per consortium. The maximum amount is up to **150,000 €** per third party acting as Technology provider and up to **50,000 €** for third party acting as End-User; with the
3. technical support and mentoring provided during the support programme;

do not hesitate to apply up until **2nd of November 2023 at 17:00 (CET)** on <https://icos.fundingbox.com/>.

²⁴ A continuum (cloud continuum, IoT continuum, edge-to-cloud or fog-to- cloud) is expected to provide the means for data processing both in the edge and cloud, while inferring and persisting important information for post-mortem and offline analysis.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	43 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
		Status:			Final

Who can apply?

We are looking for 2-member consortia: one Technology Provider and one End User.

Both entities comprising a consortium must be SMEs²⁵ or Mid-caps²⁶ (see details below) registered in the following countries²⁷:

[The Member States of the European Union and its Overseas Countries and Territories \(OCT\)](#)²⁸ or; [Horizon Europe Associated Country](#)²⁹.

What is a technology provider?

Technology Provider is any entity, IoT infrastructure provider, that will be deployed across the ICOS continuum. This infrastructure may include IoT devices that allow deployment of ICOS controller (the ICOS component/software that is responsible for peering with ICOS Agents for providing control and lifecycle) and/or agent (the basic ICOS software component that needs to be installed on each node (infrastructure node) capable of executing external software and/or providing data and metadata). Moreover, in the case that the capability to deploy ICOS is restricted, either due to processing resources limitations or because of access to the Hardware device OS, the APIs can be exploited. The final goal of the Technology Provider is to use ICOS to gain the ability to open the infrastructure to multiple vertical applications.

Who is considered to be an End User?

End User is an entity that will be the end user of the deployed application.

²⁵ An **SME** will be considered as such if it complies with the European Commission's Recommendation 2003/361/EC. As a summary, the criteria defining an SME are:

- Headcount in Annual Work Unit (AWU) less than 250;
- Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.

Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation: https://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition_en

²⁶ **Middle-capitalization company' or 'Midcap'** means an enterprise that is not a SME and that has up to 3 000 employees, knowing that the staff headcount is calculated in accordance with Articles 3 to 6 of the Annex to Commission Recommendation 2003/361/EC: <https://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF>

²⁷ The applicants who are subject to [EU restrictive measures](#) under Article 29 of the Treaty on the European Union (TEU) and Article 215 of the Treaty on the Functioning of the EU (TFEU) are not eligible to participate in this open call. Please note that the EU Official Journal contains the official list and, in case of conflict, its content prevails over that of the EU Sanctions Map.

²⁸ Following the Council Implementing Decision (EU) 2022/2506, as of 16th December 2022, no legal commitments can be signed with Hungarian public interest trusts established under Hungarian Act IX of 2021 or any entity they maintain. Affected entities may continue to apply to calls for proposals. However, in case the Council measures are not lifted, such entities are not eligible to participate in the ICOS 1st open call. In case of consortium, co-applicants will be invited to remove or replace that entity. Tasks and budget may be redistributed accordingly.

²⁹ (AC up to 28.08.2023): Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, North Macedonia, Norway, Serbia, Türkiye, Tunisia, and Ukraine, for the most up-to-date list please first part of this [document](#).

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	44 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Can I submit my application if my company is not yet established?

ICOS project is looking for companies established as legal entities no later than the end date of this open call (no later than 2nd November 2023).

What are the ICOS PILOT Use Cases?

ICOS PILOT use cases are 4 already established projects to enable deployment of the ICOS platform.

What type of activities can be funded?

Participants are expected to either:

develop the use case in one of topics defined by ICOS

1. Large and heterogeneous scenarios with massive deployment of mobile (far) edge/IoT devices
2. Critical scenarios demanding for distributed execution while supporting strong security/privacy guarantees.
3. Energy-aware framework to cover demands across the whole cloud-to-edge continuum and across different use cases.
4. Cloud-Edge-IoT continuum frameworks for autonomous groups of vehicular nodes.
5. Hardware Acceleration scenario where intelligence applications will require computing infrastructure that provides Hardware acceleration capabilities.
6. Deploy, operate and maintain a highly available and reliable fleet of robotic services across the device-edge-cloud continuum, implementing a SWARM approach across the continuum.
7. Open Use case

Always under conditions:

Applicants should address the deployment of ICOS platform for **improving and optimizing the services** within a specific domain, (**different** from the pilot use cases of the project):

- Domains excluded (from the ICOS pilots): agriculture robotics, railway inspection, automated vehicles, energy management at domestic uses.
- The project must customize the platform (from alpha and beta releases) to the service in a specific domain.
- The project will deploy a specific application in the given domain to operate with the adopted ICOS infrastructure.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	45 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

What is TRL?

TRL - Technology Readiness Level- Technology Readiness Levels (TRLs) are indicators of the maturity level of particular technologies. This measurement system provides a common understanding of technology status and addresses the entire innovation chain.

There are nine technology readiness levels; TRL 1 being the lowest and TRL 9 the highest. In our project we refer to Annex G of the [General Annexes for Horizon Europe Work Programme 2021-2022](#) for a full description of TRLs.

What happens if I do not submit my application within the deadline?

We do not accept applications after the deadline. We strongly encourage you not to wait until the last minute to submit your proposal. Failure of meeting the submission deadline for any reason, including extenuating circumstances, will result in the rejection of the proposal.

How long does it take to fill in the application?

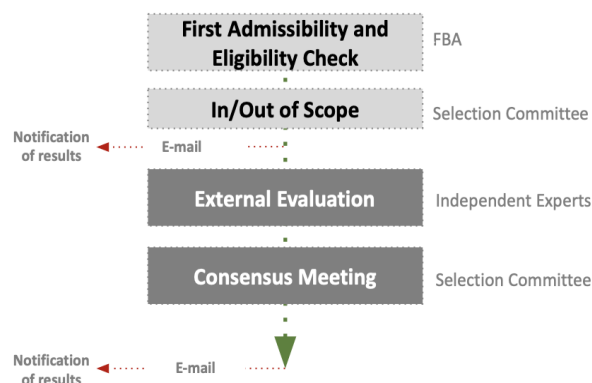
To successfully fill in the application form, you will probably need 2 days. You can split the proposal writing between your team members. You will be able to add contributors to your application so that each team member can complete their section.

We encourage you to keep your proposal focused on the requested information. We recommend you start the submission process well before the deadline to avoid last-minute circumstances.

Can a company submit two project ideas?

NO. You can submit **only one proposal per consortium and per company (SME/midcap)** in this open call. If more than one proposal per consortium is identified, only the last proposal which has been submitted in order of time will be evaluated.

What are the evaluation phases?



More on this in Section 4. in the Guide for applicants

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	46 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

What are the different evaluation phases and the expected schedule?

The table below presents the indicative dates in which each of the evaluation phases will end and the number of expected applicants that would go through to the next phase.

Phase	Time	Approximate Date	Number of applicants passing to the Next Phase
First Admissibility and Eligibility Check	4 days	08/11/2023	All that pass the criteria
In/Out of Scope	2 weeks	22/11/2023	All proposals that pass the criteria (scope and european dimension)
External Evaluation	1 month	22/12/2023	All proposals obtaining a score above the threshold (3 for individual, 10 for overall applying to the sum of the three individual scores), will pass to the next phase
Consensus meeting	5 days	31/12/2023	5 proposals will be included on the 'List of finalists' the rest that pass the criteria will be put on the 'reserve list'

What is an SME?

An SME will be considered as such if it complies with the European Commission's Recommendation 2003/361/EC. As a summary, the criteria defining an SME are:

- Headcount in Annual Work Unit (AWU) less than 250;
- Annual turnover less or equal to €50 million OR annual balance sheet total less or equal to €43 million.

Note that the figures of partners and linked enterprises should also be considered as stated in the SME user guide. For detailed information check EU recommendation: [SME definition](#).

Only SMEs legally established in the following countries will be eligible for the ICOS Open Calls

- [The Member States of the European Union and its Overseas Countries and Territories \(OCT\)](#)³⁰ or;
- Horizon Europe Associated Country³¹.

³⁰ Following the Council Implementing Decision (EU) 2022/2506, as of 16th December 2022, no legal commitments can be signed with Hungarian public interest trusts established under Hungarian Act IX of 2021 or any entity they maintain. Affected entities may continue to apply to calls for proposals. However, in case the Council measures are not lifted, such entities are not eligible to participate in the ICOS 1st open call. In case of consortium, co-applicants will be invited to remove or replace that entity. Tasks and budget may be redistributed accordingly.

³¹ (AC up to 28.08.2023): Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, North Macedonia, Norway, Serbia, Türkiye, Tunisia, and Ukraine, for the most up-to-date list please first part of this [document](#).

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	47 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

What is a Midcap?

Middle-capitalization company or ‘**Midcap**’ means:

- an enterprise that is not a SME and that has;
- up to 3 000 employees, knowing that the staff headcount is calculated in accordance with Articles 3 to 6 of the Annex to Commission Recommendation 2003/361/EC: <https://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:EN:PDF>

How will we check your SME/Midcap status?

Before signing the Sub-grant agreement, we are going to verify your SME/Midcap status. More specifically, we will request you to complete the application form with your company data (in case of having partner or linked entities also the data of those entities) and provide the following documentation:

- **Official, valid and current (up to date) registration document** of the enterprise. An extract from the current official registration document (or its equivalent: Company Register, Official Journal) indicating the name of your organization, the address of the head office, its registration number, authorized representatives. The enterprise registration document is a written statement from the Government or other authority which confirms that the company legally exists and confirms its data.
- Document showing the **holding structure** of the Applicant enterprise - shareholders and the percentage of shares that they own in applicant enterprise. We can accept an official and signed declaration indicating shareholders and the percentage of shares that they own in the organisation.
- **VAT Registration** - copy of an official and valid document proving your VAT registration. The VAT number can be confirmed by the VAT Information Exchange System (VIES) - http://ec.europa.eu/taxation_customs/vies/vatRequest.html.
- **Financial statements** of the Applicant enterprise for the latest closed financial year, containing the information about the annual balance, turnover and the staff headcount. In cases where the number of employees is not clearly identified in the financial statements, any other supporting documents which demonstrate the staff headcount such as statistic reports, annual reports, national regional, association records. If the number of employees is not clearly indicated in the above-mentioned documents, we can accept other supporting documents such as an official and signed declaration on the staff headcount expressed in Annual Working Units.
- **Additional documentation** of partner and linked enterprises (mandatory in case of having partner and/or linked entities):
 - financial statements of partners and/or linked enterprises (showing the turnover, balance total sheet, employment). In cases where the number of employees is not clearly identified in the financial statements, any other supporting documents which demonstrate the staff headcount such as statistic reports, annual reports, national regional, association records. If the number of employees is not clearly indicated in the above-mentioned documents, we can accept other supporting documents such as an official and signed declaration on the staff headcount expressed in Annual Working Units.
 - document showing the holding structure of partner/linked enterprise, e.g. official extract of the shareholders from the Chamber of Commerce or any other Official Register or instead we can accept an official and signed declaration indicating shareholders and the percentage of shares that they own in the organisation.
- **Bank Identification form** – the Bank Identification form. The Bank identification form helps us to know the banking coordinates, necessary to the authorisation of payments from the EU.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	48 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

We will also ask about your other grants previously received under the H2020 or Horizon Europe and potential conflict of interest with the ICOS. Project consortium partners.

What are the payment conditions?

As a selected grantee, you will receive a fixed lump sum³² of up to €200 000, divided as follows: up to €150 000 to the Tech Provider and up to €50 000 to the End User.

Grantees selected will go through the review process for each defined milestone that will be defined based on the predefined stages, at the beginning of the support programme, together with the technical mentors allocated, in the grantees ‘Individual Mentoring Plan’ (IMP)³³. At the end of each milestone, The Mentoring Committee will evaluate the grantees’ performance according to the criteria where each criterion will be scored from 0 to 10 and the weight of each one of these criteria, in the final score, will be as follow:

- **Deliverables’ quality.** (40%) To be scored by the Technical partners, based on the Deliverables established in the IMP.
- **Technical performance indicators.** (50%) To be scored by the Technical partners based on the Milestones established in the IMP.
- **Deadline Compliance.** (10%) To be scored by the Technical Partners.

According to this final score:

- **Beneficiaries over threshold** (which is 7 points) will successfully receive the next payment and become candidates to continue in the program.
- **Beneficiaries under threshold** will be proposed, by the Technical partners, as candidates to leave the Program. And, if this decision is finally ratified by the Selection Committee, they will have to leave the Program and won’t receive the payment.

The Selection Committee will review and validate the Technical partners’ proposal, putting special attention to the ‘under threshold’ cases, if any, by taking into consideration all possible objective reasons for underperformance. The Selection Committee will take the final decision, and approve the payments.



³² The lump sum is a simplified method of settling expenses in projects financed by Horizon Europe funds. This means that as the grantee, you will not be required to present strictly defined accounting documents (e.g. invoices) to prove the costs incurred. However, you will be obliged to demonstrate that the project implementation is in line with the set milestones (i.e. KPIs/Deliverables) (see FAQ), which will be defined in the Individual Mentoring Plan at the beginning of the programme. We will carefully assess your progress and the quality of your work during Interim Reviews, not your accountancy. The lump sum method does not exempt you from collecting documentation to confirm the costs under fiscal regulations.

³³ The Individual Mentoring Plan [IMP] is the document that establishes the individual budget, KPIs, Deliverables and a schedule that will be taken into account when evaluating the Grantees’ performance at the Milestones Review. The IMP will be defined by the Grantees, together with the technical partners, at the beginning of the Support Program and validated by the Selection Committee.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	49 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

What is the payment schedule?

ICOS 1st Open Call Support Programme is expected to start at the beginning of March 2024.

	Solution development projects				
	Stage duration	Deliverable	Fixed lump sum		
			Tech Provider	End-User	TOTAL
Stage 1 Requirements & design	1 month	Design of sectoral application	Up to 20,000 €	n/a	Up to 20,000 €
Stage 2 Device level implementation of ICOS Platform	5 months	ICOS implementation at new sectors (device level)	Up to 10,000 €	Up to 10,000 €	Up to 20,000 €
			Up to 45,000 €	Up to 15,000 €	Up to 60,000 €
Stage 3 Application-scale demonstration	6 months	Development of new sectoral service based on Stage 2 implementation	Up to 52,500 €	Up to 17,500 €	Up to 70,000 €
			Up to 22,500 €*	Up to 7,500 €*	Up to 30,000 €*
TOTAL	12 months		Up to 150,000 €	Up to 50,000 €	Up to 200,000 €

*The date and amount associated to this payment are subject to receiving the funds from the European Commission (payment of the balance)

Is any accountability required on the way the funds have been used? Are there any specific restrictions on how the funds are utilized?

The FSTP beneficiaries will receive a fixed lump sum of up to € 200,000.

The lump sum is a simplified method of settling expenses in projects financed with Horizon Europe funds. It means that the FSTP recipient is **not required** to present strictly defined accounting documents like invoices, timesheets, etc, to prove that the cost incurred. However, you are obliged to demonstrate that the implementation of the project is in line with the milestones set for it. Simply speaking, ICOS will carefully assess your progress and quality of your work during Milestone Reviews (see above), not your accountancy. In this sense,

In any case, the lump sum methodology does not release you from the obligation to collect documentation to confirm the costs under fiscal regulation.

Please bear in mind that by participating in the ICOS support programme, receiving the grant and signing the SubGrant Agreement you will also be responsible towards the competent tax authorities, and the EC audit bodies such as the European Court of Auditors (ECA), European Public Prosecutor's Office (EPPO) and the European Anti-Fraud Office (OLAF).

Which are the eligible costs for my proposal?

Lump sum budgets are based on a cost estimation which means that you need to provide us with a detailed budget table with realistic cost estimations for each cost category (personnel costs, subcontracting costs, purchase costs, other costs) per beneficiary.

These cost estimations and the resources you commit for the purposes of implementing the project, are the basis to justify the lump sum. The cost estimations must be an approximation of your actual costs.

The costs are eligible if they met the following requirements:

- they are set out in your project budget in the 'Individual Mentoring Plan';
- they are compliant with the same eligibility rules as in actual costs grants (reference to actual costs as described in Art. 6 of AGA – Annotated Grant Agreement);
- they are in line with your normal practices;

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	50 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

- they are reasonable/not excessive;
- they are in line with and necessary for implementation of your project, and the corresponding tasks and part of your project have been properly implemented and the expected milestone/deliverables have been achieved;
- they must be actually incurred by you;
- they must be incurred only during the lifetime of the project. Period of costs' eligibility is from the SubGrant Agreement signature date (from the start date of the programme period of your project) until the end of the project period.

Only costs generated during the lifetime of the project can be eligible. Period of costs' eligibility is from the contract signature date until the end of the project. Costs described in the submitted budget must be determined in accordance with the usual accounting and management principles and practices of the beneficiary (e.g. subcontracting must be awarded using the beneficiary's usual purchasing practices — provided these ensure subcontracts with best value for money (or if appropriate the lowest price) and that there is no conflict of interest).

Is there any limitation in the budget for Subcontracting?

Yes, subcontracting costs are limited to 10% of the total budget.

The beneficiaries can subcontract if necessary to implement certain actions necessary for the execution of the Project. They must select those who can adequately perform these necessary services, they must award subcontracts ensuring the best value for money or, where appropriate, the lowest price. The tasks to be implemented and the estimated cost of each subcontract must be established and justified in the Application Form Section_implementation).

More info can be found in Article 9.3 in the following link:

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

What is a Conflict of Interest?

Conflict of interest may occur, if there are capital or personal connections between two or more entities (Applicant, Consortium partner or any person involved in the selection process), in particular, it should be understood as:

- any ownership relations - ownership of shares, financial links and economic connections - like joint venture, holding, joint participation, silent partner. E.g., Applicant entity owns shares in the Consortium partner company or Consortium partner company own shares in the Applicants company (it also refers to the Applicant partner/linked enterprises). As economic connection we can understand exclusive license, sale agreements if they concern product or solution covered by your application;
- family and personal relationships, in particular: with marriage, kinship, a relationship of affinity to the second degree in a straight line or lateral line, adoption, custody or guardianship or actual life and other close personal ties binding the Applicant and Consortium partner or any person involved in the selection process (it refers also to employees, shareholders, members of the management body, members of the board, managers, subcontractors etc.) –e.g. person representing the Consortium partner company has family/personal relationship with any person representing the Applicant company;

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	51 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

- the existence of material, especially financial relationships (such as the receipt by a person involved in the selection process from Applicant any significant gifts, donations, future contracts or employment, etc);
- relationships based on employment, cooperation or existing civil contract between the Consortium partners and people involved in the Applicant structure, including managerial or supervisory functions, position in managing or supervising bodies. E.g., Director of the Consortium partner is involved in the management bodies of an Applicant company; the Applicant employees involved in the Project are employed or contracted by the Consortium partner company;
- remaining in a legal or factual relationship that may give rise to justified doubts as to the impartiality of the people involved in the selection process (expert/evaluator/employee/member of the management bodies of any of the Consortium partner).

The reasons set forth above may result in a conflict of interest if they occur at the time of an action or have occurred in the past (during the last 3 years before the action start). Time limits do not apply to family and personal relationships.

Remember that the concept of the conflict of interest should be understood widely, so if you have any doubts about the conflict of Interest please consult it with our team. All cases of conflict of interest will be assessed on a case-by-case basis.

Who owns the Intellectual property rights (IPR) of my project?

The ownership of all the results created by the grantees, via the ICOS funding, will remain with them. Results are owned by the Party that generates them. The Open Call Sub-Grant Agreement will introduce provisions concerning joint ownership of the results generated within the ICOS project, if applicable. This will be assessed and negotiated on a case-by-case basis.

NOTE: All the developed technology **to be integrated in the ICOS architecture** must be open source.

Your project should be based on your original work or your right to use the **IPR** must be clear. Going forward, any foreseen developments must be free from third party rights, or those third-party rights must be clearly stated.

Applicants must base their proposals on original work and any foreseen developments are free from third-party rights, otherwise, those third-party rights must be clearly stated. ICOS consortium is not obliged to verify the authenticity of the ownership of the future products and services and any issues arising from third party claims regarding ownership are the sole responsibility of the sub-granted parties.

Any communication or publication of the Beneficiaries shall indicate that the project has received funding from the European Union and the ICOS programme, therefore displaying the EU and ICOS logo on all printed and digital material, including websites and press releases. Moreover, Beneficiaries will agree that certain information regarding the projects selected for funding, can be used by ICOS for communication purposes. More Information can be found in the Sub-Grant Agreement.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	52 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

4 Application Form Template

ICOS Application Form

****Welcome to ICOS 1st Open Call! **** The Deadline for this Open Call is ****Tuesday 2nd of November 2023 at 17:00 (CET)**** Only proposals in English will be admitted. We strongly recommend you read carefully the [“Guide for Applicants”](#) and [“FAQ”](#), before starting to fill in the Form.

Warning: Remember that you can EDIT your application and re-submit it before the deadline, as many times as you wish.

We also want to draw your attention to a virtuous behaviour that will help us substantially with application management: Apply only once. As stated in the "Guide for Applicants", each consortia is allowed to apply only once.

If more than one proposal per consortia is identified, only the last proposal which has been submitted in order of time will be evaluated.

- If you have more than one application per consortia in progress in www.fundingbox.com, and you have already submitted one of them, we kindly request you to delete those extra applications to facilitate application monitoring.
- If you have more than one application in progress in www.fundingbox.com for the same project idea, we kindly request you to consolidate your data in a single application and delete those extra applications to facilitate application monitoring. Finally, be aware that all information provided will be verified during the evaluation process. Where any false information is detected, the proposal will be immediately excluded.

****Questions marked with (*) are mandatory****

1. BASIC INFO

The following information will enable us to contact you.

Name (and title in the company) of the contact person*	Enter your complete name (first name and last name) and your position within your organization.		textbox (50 characters)
Leading Entity (Technology Provider)*	Please enter the name of the Technology provider leading the project. (It must be a SME/midcap)		textbox (50 characters)
Contact person Email*	Please enter the email address (mail@mail.com format)		textbox (50 characters)
Contact person phone number*	Remember to include your country code		textbox (50 characters)

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	53 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Project Name*	Your project will be identified by this name		textbox (50 characters)
Tagline*	Describe your project in one sentence (max. 140 characters).		textbox (140 characters)
2. CONSORTIUM COMPOSITION AND LEGAL INFO			
The following information will enable us to verify the eligibility of the composition of the consortia and legal requirements.			
Technology provider entity (coordinating entity SME/midcap)			
COMPANY LEGAL STATUS. Note that only companies that fulfil the limits of SMEs and midcap definitions are eligible (see Guide for Applicants). At the end of the selection process, you will be requested to provide the necessary documents to confirm legal status eligibility.			
Legal name of your entity*	The legal name in the country where the company is incorporated		textbox (50 characters)
Please, describe your organisation*	Short description of the entity, what are the service domains in which your company operates?		textbox (200 characters)
Years of Operation*	Number of years (or fractions) since incorporation.		Number box
Annual turnover*		<ul style="list-style-type: none"> ▶ less or equal to 50 million EUR ▶ less or equal to 100 million EUR ▶ more than 100 million EUR 	Single Choice
Organisation size* Number of people employed in the organisation (Headcount in Annual Work Unit)		<ul style="list-style-type: none"> ▶ less than 10 ▶ 11- 249 ▶ 250-500 ▶ over 501 ▶ over 1000 ▶ over 2000 ▶ over 3000 	Single Choice
City*	The city where the company is incorporated		textbox (50 characters)

Country*	Take note that only countries indicated in the GfA are eligible to apply.		Country drop-down
References*	If your organization has already participated, or you are participating, or you are committed to participate in another incubator, accelerator or European project, please tell us about it, indicating the name of the Programme, country, date, duration and main expected results.		max 500 characters
End-user entity (SME/midcap)			
COMPANY LEGAL STATUS. Note that only companies that fulfil the limits of SMEs and midcap definitions are eligible (see Guide for Applicants). At the end of the selection process, you will be requested to provide the necessary documents to confirm legal status eligibility.			
Legal name of your entity*	The legal name in the country where the company is incorporated		textbox (50 characters)
Please, describe your organisation*	Short description of the entity, what are the service domains in which your company operates?		textbox (200 characters)
Years of Operation*	Number of years (or fractions) since incorporation.		Number box
Annual turnover*		<ul style="list-style-type: none"> ▶ less or equal to 50 million EUR ▶ less or equal to 100 million EUR ▶ more than 100 million EUR 	Single Choice
Organisation size* Number of people employed in the organisation (Headcount in Annual Work Unit)		<ul style="list-style-type: none"> ▶ less than 10 ▶ 11- 249 ▶ 250-500 ▶ over 501 ▶ over 1000 ▶ over 2000 ▶ over 3000 	Single Choice

City*	The city where the company is incorporated		textbox (50 characters)
Country*	Take note that only countries indicated in the GfA are eligible to apply.	Belgium, Bulgaria, Czechia, Denmark, Germany, Estonia, Ireland, Greece, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Slovakia, Finland, Sweden, Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Kosovo, Moldova, Montenegro, North Macedonia, Norway, Serbia, Tunisia, Turkey and Ukraine	Country dropdown
References*	If your organization has already participated, or you are participating, or you are committed to participate in another incubator, accelerator or European project, please tell us about it, indicating the name of the Programme, country, date, duration and main expected results.		max 500 characters
Is any of the company in your consortium linked financially, personally with the ICOS partners?	Have you identified any potential conflict of interest? Please refer to Section 3.2 of the GfA and FAQ for Conflict of Interest Definition		YES/NO
Summary of the project			
Brief Description	Tell us about your project and the business model behind it (max. 1000 characters).		textbox (paragraph 1000 chars)

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	56 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Topic	<p>Select the topic most relevant to your solution. Please go through the GfA Section 3 to see topics</p>	<ul style="list-style-type: none"> ▶ Large and heterogeneous scenarios with massive deployment of mobile (far) edge/IoT devices. ▶ Critical scenarios demanding for distributed execution while supporting strong security/privacy guarantees. ▶ Energy-aware framework to cover demands across the whole cloud-to-edge continuum and across different use cases. ▶ Cloud-Edge-IoT continuum frameworks for autonomous groups of vehicular nodes ▶ Hardware Acceleration scenario where intelligence applications will require computing infrastructure that provides Hardware acceleration capabilities ▶ Deploy, operate and maintain a highly available and reliable fleet of robotic services across the device-edge-cloud continuum, implementing a SWARM approach across the continuum. ▶ Custom made (other) topic 	Topic drop-down
Topic description	What particular aspect(s) of the topic selected will be addressed by your Project?		textbox (paragraph 500 chars)

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	57 of 77
Reference:	D6.1	Dissemination: PU	Version: 1.0
		Status:	Final

3. EXCELLENCE			
In this section you should provide a functional and technical description of your project. Evaluators will pay special attention to the ambition and innovation of your experiment.			
To what extent does the proposed project contribute to the ICOS project scope?*	Please tell us in a few lines why you think you are good fit for this ICOS open call		textbox (paragraph 500 chars)
European Dimension*	Please tell us in a few lines why your project has a clear European dimension as described in the Guide for applicants.		textbox (paragraph 500 chars)
Ambition*	Shortly describe to what extent the proposed project is beyond the State of the Art. Describe the innovative approach behind the project (e.g. ground-breaking objectives, novel concepts and approaches, new products, services or business and organisational models) you propose to implement ICOS in new extended service domains.		textbox (paragraph 2000 chars)
Innovation*	Provide information about the level of innovation within your sectoral domain and about the degree of differentiation that this project will bring.		textbox (paragraph 2000 chars)
Soundness of the approach and credibility of the proposed methodology*			textbox (paragraph 2000 chars)
Technology Readiness Level*	Which of the following best describes the current status of the project at a technological level? Bear in mind experiments under TRL3 or above TRL4 are not eligible.	<ul style="list-style-type: none"> ▶ TRL 1 – basic principles observed. ▶ TRL 2 – technology concept formulated. ▶ TRL 3 – experimental proof of concept 	List TRL (with description) Single Choice

		<ul style="list-style-type: none"> ▶ TRL 4 – technology validated in lab. ▶ TRL 5 – technology validated in relevant environment (industrially relevant environment in the case of key enabling technologies) ▶ TRL 6 – technology demonstrated in relevant environment (industrially relevant environment in the case of key enabling technologies) ▶ TRL 7 – system prototype demonstration in operational environment ▶ TRL 8 – system complete and qualified ▶ TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space) 	
4. IMPACT			
<p>In this section, you should show the market potential and Commercial Strategy and Scalability. You should also describe the environmental and the social impact of your project.</p>			
Market opportunity*	Describe a clear idea of what you want to do and whether the new/improved product (use case/service) has market potential, e.g. because it solves a problem for a specific target customer.		textbox (paragraph 2000 chars)

Competition*	Please provide information about the degree of competition for the particular use case/service and if the idea is disruptive and breaks the market. i.e. the use case/services to be brought to market can be clearly differentiated from the competition.		textbox (paragraph 2000 chars)
Commercial Strategy and Scalability*	Please demonstrate the level of scalability of the new/improved product (use case/service) meaning by not addressing a specific problem but to be able to be commercialised to solve a structural problem in your specific sector/process/etc. of application.		textbox (paragraph 1000 chars)
Environmental and social impact*	Please describe the project contribution towards environmental, social and economic impacts in contributing to sustainable development, Green Deal and other European policies.		Textbox (paragraph 1000 chars)

5. IMPLEMENTATION

In this section, you should show the market potential and Commercial Strategy and Scalability.

You should also describe the environmental and the social impact of your project..

Team

Team*	Please provide a short description of your team's management and leadership qualities, their ability to take a concept from ideas to market, their capacity to carry through their ideas and understand the dynamics of the market you are trying to tap into. Remember: The team should be a cross-functional team, with a strong background and skills base and taking into account its gender balance.		textbox (paragraph 2000 chars)
Gender Balance*	Please indicate by percentage the gender balance among the personnel responsible for carrying out the activities.		textbox (paragraph 50 chars)

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	60 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Resources*	Demonstrate the quality and effectiveness of the resources assigned in order to get the objectives/deliverables proposed.		textbox (paragraph 2000 chars)
Budget			
Budget file*	Please upload the budget following the template provided.		Upload document
Subcontracting* max 10% total budget	Please describe and explain the distribution between the entities as part of the project.		max 500 characters
Ethics			
Ethical Issues*	Are there any relevant issues on ethics, data protection, privacy etc? If yes, please describe the issue(s) and suggest how you propose to mitigate these or manage them. We recommend each applicant to review the EC ethical self assessment in order to identify any issues which might arise in the pilot implementation.		(max 1000 characters)
6. DECLARATION OF HONOUR*			
Please read carefully the statements below. You will not be able to change the statements after the deadline			
By ticking the boxes below, I confirm that			
I have the legal status, power of attorney, or equivalent legal authority to represent the legal entity I am a part of in the capacity that is needed for applying to the ICOS Open Call, as a beneficiary.*			Yes/No
I am applying in the name of the members of the consortia of our ICOS project and have the authority to do so in capacity that is needed for applying to the ICOS Open Call, as a beneficiary*.			Yes/No

I have read and understood the information about the project, as provided in the Guide for Applicants*			Yes/No
I accept all the rules and regulations of this open call as detailed in the GfA*			Yes/No
I and the entities who are involved in the experiment consortium I represent have been given the opportunity to ask questions about the project and our participation via icos@fundingbox.com*			Yes/No
I and the entity involved in the project consortium I represent voluntarily agree to participate in the ICOS project*			Yes/No
I and the entity involved in the project consortium understand we can withdraw at any time without giving reasons and that we will not be penalised for withdrawing nor will we be questioned on why we have withdrawn*			Yes/No
I and the entity involved in the project consortium acknowledge that the evaluators and the European Commission and its bodies and agencies may have access to the data collected under the open call*			Yes/No
Data provided in the application form are true and up-to-date*			Yes/No
The entity and entity involved in the project consortium I represent meet the eligibility conditions, in particular SME/Midcap described in the Guide for Applicants.*			Yes/No

There is no conflict of interest among the entities involved in the project consortia I represent and any of the ICOS consortium partners*			Yes/No
is/ are listed on the EU sanction list : https://www.sanctionsmap.eu , which means that is/are subject to EU restrictive measures under Article 29 of the Treaty on the European Union (TEU) and Article 215 of the Treaty on the Functioning of the EU (TFEU))*			Yes/No
The entities involved in the project consortium I represent nor the persons with power of representation, decision-making or control over the above-mentioned legal entities is not in one of the following situations:*			TRUE/FALSE
it is bankrupt or being wound up, is having its affairs administered by the courts, has entered into an arrangement with creditors, has suspended business activities, is the subject of proceedings concerning those matters, or is in any analogous situation arising from a similar procedure provided for in national legislation or regulations;*			TRUE/FALSE
it or persons having powers of representation, decision making or control over it have been convicted of an offence concerning their professional conduct by a judgment which has the force of res judicata*			TRUE/FALSE
it has been guilty of grave professional misconduct proven by any means which the contracting authority can justify including by			TRUE/FALSE

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	63 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

decisions of the European Investment Bank and international organisations*			
it is not in compliance with its obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which it is established or with those of the country of the contracting authority or those of the country where the contract is to be performed*			TRUE/FALSE
it or persons having powers of representation, decision making or control over it have been the subject of a judgment which has the force of res judicata for fraud, corruption, involvement in a criminal organisation or any other illegal activity, where such illegal activity is detrimental to the Union's financial interests*			TRUE/FALSE
it is subject to an administrative penalty for being guilty of misrepresenting the information required by the contracting authority as a condition of participation in a grant award procedure or another procurement procedure or failing to supply this information, or having been declared to be in serious breach of its obligations under contracts or grants covered by the Union's budget.*			TRUE/FALSE
I did not make false declarations in supplying the information required, as a condition of participation in the Open Call or does not fail to supply this information			TRUE/FALSE

I have read, understood and will comply with the open call details and requirements and so will the rest of the project consortia I represent.*			Checkbox
I voluntarily agree to be registered at ICOS Community at https://spaces.fundingbox.com/spaces/iot-edge-community-icos-helpdesk and I understand that I can delete my profile from the above-mentioned Community by informing the ICOS Team via icos@fundingbox.com.*			Yes/No
7. PROCESSING OF PERSONAL DATA			
I confirm that I read and understood the information clause concerning processing of the personal data provided above*.			YES
I have consent of the team members listed in the application form to add their data*			YES
I will pass the information clause provided above to all team members mentioned in*			YES

Budget Template

	Numbers Sheet Name	Numbers Table Name	Excel Worksheet Name
9	Instructions	Table 1	Instructions
11	ACRONYM- BUDGET	Table 1	ACRONYM- BUDGET

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	66 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status: Final

How to fill in the budget

Please read the information provide below before filling in your budget.

Change the name of this file ICOS_ **ACRONYM** Budget by adding the acronym of your project.

Change the name of the sheet **ACRONYM**- BUDGET by adding the acronym of your experiment.

Please only filling in white cells. Grey cells contain formulas which **MUST NOT** be changed

In the event you need add more rows (more entities in your consortium) Be sure that the formulas in Grey cells are properly added. Please drag down the cells. **DON'T** change the format of the table

Limits of the grant per individual entities

SMEs/Midcaps: max grant up to 150.000,00€ for Service provider entity and 50.000,00€ for the End-user entity

Eligible cost description

1. Personnel, if they are related to personnel working for the beneficiary under an employment contract (or equivalent appointing act) and assigned to the implantation of your experiment ('costs for employees (or equivalent)')

How to calculate: {{hourly rate (base on your internal personnel cost) multiplied by number of actual hours worked on the implementation}.

2. Other goods and services: If necessary to implement the action, you may purchase goods or services.

The beneficiaries must make such purchases ensuring the best value for money or, if appropriate, the lowest price. In doing so, they must avoid any conflict of interests.

How to calculate: There is no specific calculation method; the costs must correspond to the eligible costs actually incurred.

3. Travels: This budget category covers the travel costs and related subsistence allowances spent during the implementation of your experiment.

How to calculate: There is no specific calculation method; the costs must correspond to the eligible costs actually incurred.

4. Subcontracting: Max. 15% of the total budget. If necessary to implement the action, the beneficiary may award subcontracts covering the implementation of certain action tasks described in the experiment, not core tasks/action.

The beneficiary must award the subcontracts ensuring the best value for money or, if appropriate, the lowest price. In doing so, it must avoid any conflict of interests.

How to calculate: There is no specific calculation method; the costs must correspond to the eligible costs actually incurred.

5. Overheads: This budget category covers all costs for the action that are not directly linked to it. Indirect costs must be declared as a fixed flat-rate.

How to calculate: The indirect costs are automatically calculated by the budget spread sheet (Overhead: 25% of (1+2+ 3), excluding 4 (subcontracting).

* The general cost eligibility conditions can be found here: [FINANCIAL REGULATION 2018/1046](#)

Costs are eligible, if they correspond to the lump sum set out in the budget and if the corresponding tasks or parts of the action have been properly implemented in accordance with the IMP.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	67 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

* Difference between purchase good and services and subcontracting: Suppliers of goods or services do not implement action tasks themselves, but only make resources available to the beneficiary, whereas subcontractors, linked third parties and international partners implement action tasks.

Lump Sum methodology

The lump sum is a simplified method of settling expenses in projects financed from Horizon Europe funds. It means that the **grantee is not required to present strictly defined accounting documents to prove the cost incurred** (e.g. invoices), **but is obliged to demonstrate the implementation of the project in line with the milestones set for it**. We will assess your progress and quality of the work provided during the programme. The milestones, KPIs and ethical recommendations will be fixed in the 'Individual Mentoring Plan' elaborated at the beginning of the programme. During interim and final review meetings, the consortium partners verify whether that goals were achieved and they are of satisfactory quality. This is the basic condition to release the Payment. **This does not mean that the Beneficiary will have complete freedom on how to make the expenses and how the project is executed, and that as a consortium, we do not care how the grant is spent.**

Below some basic rules:

- * The lump sum must be an approximation of the beneficiary's underlying actual costs.
- * The budget must be presented and it should justify how the grant will be spent according to the implementation of the project.
- * As the most crucial aspect of the lump sum methodology, we should be aware that the Beneficiary can prove that the milestones were achieved according to what was set in the IMP and that it was done with the agreed quality



Export Summary ▾

Instructions ▾

ACRONYM- BUDGET ▾

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call				Page:	68 of 77	
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

	A	B	C	D	E	F	G	H	I
1									
2		Personnel costs	Other goods and services	Travel costs	Subcontracting (max. 15% total budget)	% Subcontracting	Overheads (25% of sum of 1+2+3)	TOTAL	
3	<<DIH name>>					#DIV/0!	€ 0.00	€ 0.00	
4	<Leading SME name>>					#DIV/0!	€ 0.00	€ 0.00	
5	<< SME 2 name>>					#DIV/0!	€ 0.00	€ 0.00	
6	<< SME 3 name>>					#DIV/0!	€ 0.00	€ 0.00	
7	<< SME 4 name>>					#DIV/0!	€ 0.00	€ 0.00	
8	<< SME 5 name>>					#DIV/0!	€ 0.00	€ 0.00	
9	<< SME 6 name>>					#DIV/0!	€ 0.00	€ 0.00	
10	<< SME 7 name>>					#DIV/0!	€ 0.00	€ 0.00	
11	<< SME 8 name>>					#DIV/0!	€ 0.00	€ 0.00	
12	<< SME 9 name>>					#DIV/0!	€ 0.00	€ 0.00	
13	<<add more rows if need it>>*								
14	TOTAL	€ 0.00	€ 0.00	€ 0.00	€ 0.00	#DIV/0!	€ 0.00	€ 0.00	

* if you do, be sure to drag the cells in columns F/ G/ H to keep the formula

+ ≡
Export Summary ▾
Instructions ▾
ACRONYM- BUDGET ▾

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	69 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Information clause for personal data processing in the 1st Open Call organized under ICOS Project

Grant Agreement No. 101070177

CONTROLLER`S IDENTITY AND CONTACT DETAILS

The data controllers are all entities in the [FundingBox capital group](#) as the Joint Controllers. All FundingBox entities have agreed on common data processing purposes. In all matters regarding personal data, you can contact us using the following email address: privacy@fundingbox.com.

The essence of the arrangement is available [here](#).

PURPOSES, LEGAL BASIS AND PROCESSING PERIOD		
The purpose and legitimate interest of processing	Legal basis for processing	Period
1) To run an Open Call and collect data necessary to evaluate applications submitted in the Open Call.	Legitimate interest of FundingBox (based on Art. 6.1.f) of GDPR) which is fulfilling the obligations and our other interests related to implementation of the Project.	6 years from the end of the year in which the Project ended.
2) To realize the Project goals described in the Grant Agreement (e.g. communication, reporting, collaborating with other project partners).		
3) To consider potential complaints.		
4) To gather feedback from applicants when the Open Call is over to improve processes.		
If an applicant has been selected to become the beneficiary of the project:		
5) To collect the applicant's details and documentation necessary to verify its legal status. Data will be collected in separate form via FundingBox platform.	Processing is necessary for the performance of a contract (based on Art. 6.1.b) of GDPR).	

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call	Page:	70 of 77
Reference:	D6.1	Dissemination:	PU
	Version:	1.0	Status: Final

DATA RECEIVERS

The Joint Controllers will transfer personal data only to trusted recipients such as IT service providers, accountants, law firms, postal and courier companies (who process personal data on the controllers' behalf).

Due to the fact that we use the services of Google LLC, your data may be transferred to the USA. We have concluded an agreement with Google – the so-called Standard Contractual Clauses. This means that in accordance with the decision of the European Commission No. 2021/914 EU of June 4, 2021, your personal data may be processed by this company in the USA. More information about the decision at: <https://fundingbox.com/trust/transfer-outside-eea/>.

To realize the Project, data can be transferred also to Project Partners (complete list of the project partners is available at the email address: privacy@fundingbox.com) and European Commission.

RIGHTS OF DATA SUBJECT

Due to the fact that we process your personal data, you have the right to:

- 1) request access to your personal data,
- 2) demand the rectification of your personal data,
- 3) request to remove or limit the processing of your personal data,
- 4) data portability,
- 5) complain with the supervisory authority (https://edpb.europa.eu/about-edpb/about-edpb/members_en).

You also have a right to object to processing of your personal data for all purposes indicated above (according to the Article 21 of GDPR).

INFORMATION ABOUT VOLUNTARY OR OBLIGATORY DATA PROVISION

Providing data is voluntary, although it is necessary to participate in the Open Call. Without providing your data, it is not possible to contact you and evaluate the application.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	71 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

Statistical section (optional)

Statistical section	Type of applicant (organisation or natural person(s))		Small and mid-size enterprises (SME) Slightly bigger company Middle-capitalization company (Mid-cap) Large company, DIH	Single Choice
	<p>What is the status of digital transformation in your company?</p> <p>If Small and mid-size enterprises (SME) Slightly bigger company Middle-capitalization company (Mid-cap) Large company,</p>		<ol style="list-style-type: none"> 1. Manual work: We have only manual systems implemented. 2. Computerization: IT systems are used in isolation in our company. 3. Connectivity: There is existing data anchorage between IT systems and business applications. 4. Monitoring: We are gathering real-time information about business and/or production processes through sensors. 5. Understanding: We have full insights into business and/or production processes through data analysis. 6. Predictive capacity: We create simulations to prevent unwanted future scenarios. 7. Adaptability: We have achieved continuous adoption and automated actions. 	Single Choice

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	72 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

	Can you indicate your annual revenue?	Provide the figure in EUR. Example: 25.000 EUR		Number
	Can you indicate your annual turnover?	Provide the figure in EUR. Example: 25.000 EUR		number
	How did you find out about the open call?		<ul style="list-style-type: none"> • FundingBox newsletter • FundingBox website • FundingBox social media • i4Trustcommunity or another FundingBox community • A promoted ad or message on FundingBox Social Media • A promoted ad on Google search results • Banner in a website • i4trust's website, social media or newsletter • A project partner's website, social media or newsletter (other than FundingBox) • A communication from an association related to your industry • An article or post from media related to your industry • Event • Word of mouth • Other 	Multiple choice

	<p>If you found about the open call in an event, please tell us which event it was?</p> <p>If your reply was "Other" can you please specify?</p> <p>What sources of information, other than FundingBox, do you go to search for funding opportunities?</p> <p>What do you feel FundingBox offers you that no other company does?</p>			<p>text box (100 ch.)</p> <p>text box (100 ch.)</p> <p>text box (100 ch.)</p> <p>text box (100 ch.)</p>
--	--	--	--	---

Submission

"You are about to submit your application form. Once you submit the application you will be able to edit it until the deadline. Remember to submit your application again after editing it."

You can download your proposal on "My Applications", on your user's profile.

Thank you

Your application for ICOS 1st Open Call has been submitted.

Want to know more about the project? [JOIN THE COMMUNITY!](#)

Thank you text

Thank you for submitting your application!

You can download your proposal on "My Applications" on your user's profile.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	74 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Thank you email text

Thank you for submitting your application to the ICOS Open Call. We will come back to you with results after the evaluation process.

You can download your proposal on “My Applications” on your user’s profile.

Good luck!

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	75 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final

5 Reflections and Lessons Learned

This deliverable as well as the work on the task 6.2 is a joint effort of the consortium members, especially Selection Committee members (FBA, ATOS, UPC, CEADAR, ENG, WSE), a joint document of the open call package of documents.

In order to complete the Open Call package of documents, T6.2leader (FBA) organised weekly calls with the consortium, based on the joint discussion drafted the documents and shared them with the Selection Committee via e-mail for their contribution. (see email below)

Dear Selection Committee members.

Since the ICOS 1st Open Call Launch is approaching please find the package of Open Call documents for your review:

[Guide for applicants](#) (first document our applicants will see)

[Application Form](#) (document used by Evaluators, the SC during the in/out screening and the consensus meeting to select the best projects - feel free to suggest additional questions)

[FAQ](#) (if needed)

Deadline for the review is **Wednesday 12th of July**.

Note: we are to send the finalised versions to the PO by the 17th of July.

Thank you very much, your help and input is needed.

Elena

P.S. Selection Committee members:

FBA, Elena Japundzic

ATOS, [Francesco D'Andria](#)(Lara Lopez Muniz)

UPC, [Xavier Masip Bruin](#)(Jordi Garcia)

IMB, TBD


CEADAR, [Andres Suarez-Cetrulo](#)

ENG, Gabriele Giammatteo

WSE, Izabela Zrazinska

--

Elena Japundžić - Reach me at [@ElenaJapundzic](#)
Legal Lead



We are [#FundingChampions](#)
fundingbox.com
Facebook | Twitter | LinkedIn

Through this approach all project partners, especially Selection Committee members, could contribute to the draft of the documents simultaneously using “suggestions” and “comments” to reflect on the expectations of the third party grantees of the ICOS project and to highlight aspects related to the eligible projects, the applicants and the selection process overall making sure the project achieves its goals through the 12 month support programme.

Lessons learned during the process:

- It is important to plan the meetings for the consortium and to have an agenda in advance. Involve all relevant partners and make sure to communicate in advance the subject in a clear way.
- Relate the objectives of the task 6.2 to the objectives of the launched Open Call and relevant Open Call documents.
- Prepare support materials about the project, such as Annex A of the GfA: ICOS architecture White Paper, in advance, involving all the consortium in order to give further insights on the call.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	76 of 77
Reference:	D6.1	Dissemination:	PU	Version:	1.0
				Status:	Final

Deliverable D6.6 will be a second version of this deliverable prepared in a wake of the ICOS 2nd Open Call for ICOS uptake projects. The objectives and content of the two deliverables will be significantly different, because of the different objectives, number of grantees sought, desired applicants, support programme duration, amount of the FSTP grant etc. The structure of both deliverables and Open Call Package of documents will follow FBAs tested practice and expertise in the area, using these Open Calls lessons learned as a valuable guidance.

Document name:	D6.1 Call Announcement and Guide for Applicants - First Open Call			Page:	77 of 77		
Reference:	D6.1	Dissemination:	PU	Version:	1.0	Status:	Final