



Starts.eu



S+T+ARTS



HungryEcoCities project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement 101069990.

Frequently Asked Questions (FAQ)

Hungry EcoCities Second Open Call

Open Call for Art-Driven Experiments 1st phase - Call for End-Users

Application submission starts on **15 February 2024 at 09:00 CET (Brussels time)**.

The submission deadline is **15 May 2024 17:00 CEST (Brussels time)**.

PUBLIC

S+T+ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

History of changes

Date	Version	Author	Comments/Changes
08.01.2024	1.0	FBA	All Sections



Table of Contents

Contents

What is Hungry EcoCities?	4
Where can I find more information about the project?	4
Why should you apply?	4
Who should apply?	5
What could be a perfect candidate for this call of Hungry EcoCities?.....	5
What types of projects will be appropriate in this call?	6
What is the EU food policy (EU topics) and how does it relate to the proposal by the End-User?	6
What happens if I do not submit my application within the deadline?	7
How long does it take to fill in the application?	7
What are the criteria to assess the proposals?	7
Are there any webinars planned?	7
Where can I go for support if I need help with preparing an application?	8
How to write a proposal that convinces evaluators?	8
What are the different evaluation phases?	8
What is the expected timeline of the call?	8
What are the Paths to Progress Experiments (PPEs)?	9
What do the different phases of the program consist of?	9
What will be the result of the PPE?	10
What is a TRL?	10
What does TRL level 5/6 mean?	10
Which actors are defined in the agrifood chain?	11
When taking part in an open call, should we invite the artist to collaborate with us?	11
What are the payment conditions?	12
What is the payment schedule?	12
What services does Hungry EcoCities offer in the Support Program?	12
Do I need to travel for the project?	12
Is any accountability required on the way the funds have been used, e. g. invoices and other financial documents? Are there any specific restrictions on how the funds are utilized?	13
Which are the eligible costs for my proposal?	13
How should we estimate the budget?	14
If I foresee subcontracting in my project, should the offers of subcontractors (from which I select a subcontractor) be included in the indicative budget allocation (in the application form)?	14
What could the collaboration with technology scientists (AI / Robotics / IoT / Biotech) look like?	14
What do we mean by the Hungry EcoCities directions?	17

Who are the Creative Studios in Hungry EcoCities? 19

How does Hungry EcoCities stimulate diversity and inclusion? 19

Can Beneficiaries of the first open call apply for the second one? 19

What is a Conflict of Interest? 19

Are UK entities eligible under this open call? 20

The Hungry EcoCities Consortium 22



Frequently Asked Questions and Tips for Applicants

These Frequently Asked Questions concern the main features of the Hungry EcoCities Second Open - 1st phase - Call for End-Users, as a preliminary step to join the Second Hungry EcoCities Support Programme (Paths to Progress Experiments, 'PPEs').

What is Hungry EcoCities?

Hungry EcoCities, an initiative conducted by [8 partners](#) across the European Union, aims to establish synergies among technology, agri-food, and the arts to enhance awareness and the impact of technological tools on responsible resource use.

Hungry EcoCities advocates for a high-level alliance between science, technology, and the arts to explore how digital technologies can contribute to reduced food waste, more sustainable value chains, eco-friendly practices, and ethical food consumption. This project brings together renowned art studios, leading AI and agricultural experts, and a network of over 40 European agricultural companies to develop a healthier, sustainable, and affordable agri-food system.

For this part of the project, where we invite End-Users to join us, the goal is to develop, test and validate innovative applications of (AI) technology with food chain End-Users leading to:

- A] lasting innovative results for the SMEs/ End-Users
- B] wider effects on the food chain
- C] proving the value of creatives (artists) as innovators.

This project is funded by the European Commission under the Horizon Europe program framework.

Where can I find more information about the project?

Project website: <https://starts.eu/>

Open Call website: <https://hungry-ecocities-end-users.fundingbox.com/>

Community: <https://spaces.fundingbox.com/spaces/smart-manufacturing-hungry-ecocities/category/helpdesk-hec>

LinkedIn: <https://www.linkedin.com/company/starts-eu/>

Open Call helpdesk email: hungryecocities@fundingbox.com

Why should you apply?

Hungry EcoCities, in its Second Open Call, provides the opportunity for End-Users to collaborate with our consortium and ultimately (in the second stage of this Open Call) form a

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

team with an artist (Artist-End-User team). This opportunity will secure funding for projects to address key issues related to the food ecosystem, and environmental issues and raise awareness across the European Union. This stage of the second Open Call covered in this FAQ is dedicated to End-Users (the entities). This project offers an opportunity to work on innovation challenges in a multi-disciplinary setting.

Who should apply?

If you represent a small or medium-sized enterprise (SME¹) including a start-up² registered as a company before the start date of the Second Open Call. The above-mentioned SMEs will be eligible if they have a product on the market with a sufficient track record and a real environment to test in. Additionally, they must be involved in the agri-food sector, interested in innovation and new opportunities, and commit to making the food chain more transparent, inclusive, and sustainable. If you aim to build connections between different stakeholders in the food chain and promote more conscious and sustainable consumption patterns, this project is tailored for you. All eligible applicants are listed in section 4.1. of [the Guide for Applicants](#).

Your involvement can contribute to the actions proposed by Hungry EcoCities and foster your professional development, ensuring a more significant impact from your work.

What could be a perfect candidate for this call of Hungry EcoCities?

If you're an entity (the full scope of the entities is specified in detail in section 4.1. of [the Guide for Applicants](#)) involved in the food system seeking to shift the perception of the food chain, open to collaborating with those in the realms of art and science, and eager to enhance your capabilities in delivering AI-driven responsible innovations for a sustainable food chain, you're an ideal fit for this project.

In short, we search for End-Users (the entities):

- active in the food chain,
- interested in innovating around a complex challenge,
- looking to improve (their part of) the food chain,
- open for collaborations within the Hungry EcoCities support program with:
 - technology scientists (AI / Robotics / IoT / Biotech)

¹ **SME definition.** An SME will be considered as such if it complies with the European Commission's Recommendation 2003/361/EC. In 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 or https://ec.europa.eu/growth/smes/sme-definition_en

² 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

- world-leading creative studios (SOS, CRA, AMO)
- artists with innovative prototypes.

What types of projects will be appropriate in this call?

The experiments will centre around a complex challenge from the specific / local context of the SME.

A complex challenge is a challenge which requires multiple disciplines to tackle.

It is a system level challenge which has technical, business and societal implications.

Art-driven experiments are projects where we use artistic research, curiosity and ideas to define and design the project goals and execution.

Local test sites are the production / working environments of the SME companies themselves.

These will be the locations where the experiments will be taking place.

A few examples of complex challenges which would be in scope of this call (please note these are random examples which are intended to provide some context and inspiration to develop your own challenge):

- A greenhouse grower is faced with a lot of biological waste from foods which have been discarded in the process. How can these foods be (re)used so that no produce goes to waste?
- A dairy farm cooperative has the ambition to support the farmers they work with in caring for their animals. With a lot of experience and knowledge around milk processing, they already support the farmers in selecting the right food, but they want to do more.
- A chocolate factory is dealing with a lot of packaging waste. Cardboard, plastics. A lot of packaging for packaging. This must be possible to do smarter.
- A supermarket wants to know what the true cost of their shelf products are. Not just the purchasing cost, but what implications their products have on people and planet.
- A restaurant wants to design their menu on the basis of responsibility rather than availability. By taking into account the footprint of ingredients, the seasonality, the nutritional value and more, they are interested in creating their menu around these parameters in the future.
- A food logistics startup is making it possible for customers to shop directly at dozens of local farmers and get the products delivered to their house. This digital supermarket wants to help customers choose for fresh local produce by offering them added value over regular supermarkets. How could technology, interfacing and digital communication support this is the question.

What is the EU food policy (EU topics) and how does it relate to the proposal by the End-User?

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

The European Union has set out a framework for the development of the food industry under [Food2030](#).

It will concentrate on 11 areas known as pathways for action:

- Governance for food systems change
- Urban food system transformation
- Food from the oceans and freshwater resources
- Alternative proteins for dietary shift
- Food waste and resource-efficient food systems
- The microbiome world
- Nutrition and sustainable healthy diets
- Food safety systems of the future
- Food systems Africa
- Data and digital transformation
- Zero Pollution food systems

The challenges identified by End-Users have to fall under the 11 areas above and fit into the Food2023 policy.

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 to meet 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?

Once you collect all the required information and depending on the complexity of your proposal, filling in the application form online on the dedicated portal can take from 3 to 6 hours.

What are the criteria to assess the proposals?

All the admissibility and eligibility criteria are defined in section 4 of [the Guide for Applicants](#). Those criteria will be evaluated according to section 5 of [the Guide for Applicants](#).

Are there any webinars planned?

Two webinars with a Q&A session are planned - one [on February 29, 2024](#), in the afternoon and the other [on April 2, 2024](#), in the morning. Exact times and links for registration will be provided on the [call microsite](#) and [STARTS webpage](#). In case you cannot make it to the webinar, the webinars will be recorded and made available to watch afterwards.

Where can I go for support if I need help with preparing an application?

If you have any doubts during the preparation of the proposal, make sure to check [the Guide for Applicants](#) and the FAQ documents. If you do not find the answers, you can still contact us at hungryecocities@fundingbox.com or write to us in the [Hungry EcoCities community](#). Make sure you [join the community](#) to stay up to date with events and register for the online webinars where we answer all your questions.

How to write a proposal that convinces evaluators?

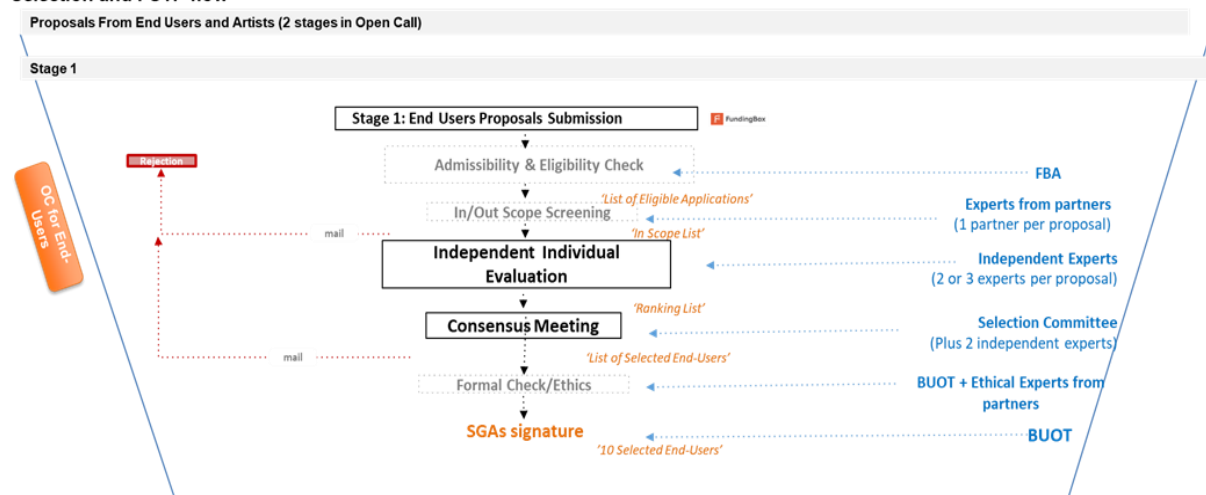
To improve your chances, make sure to include all the guidelines as suggested in the open call description in [the Guide for Applicants](#). Make sure you do not leave any information out of your proposal. Be specific and provide precise answers to the questions in the application form. If you want to stand out, quality is the way to go.

What are the different evaluation phases?

The selection of the open-call proposals will be carried out in a four-step process that will last approximately 2 months. Step one will check the proposals against admissibility and eligibility criteria and step two is in/out scope verification. Step three will involve independent external and internal evaluation to assess the proposal according to the criteria detailed in [the Guide for Applicants](#). Step four will involve the Hungry EcoCities consortium partners voting on the list of selected participants scoring above the threshold in a Consensus Meeting scheduled for June 28, 2024*.

**Dates are estimated. If any changes occur, all applicants will be notified.*

Selection and FSTP flow



What is the expected timeline of the call?

S+T+ARTS



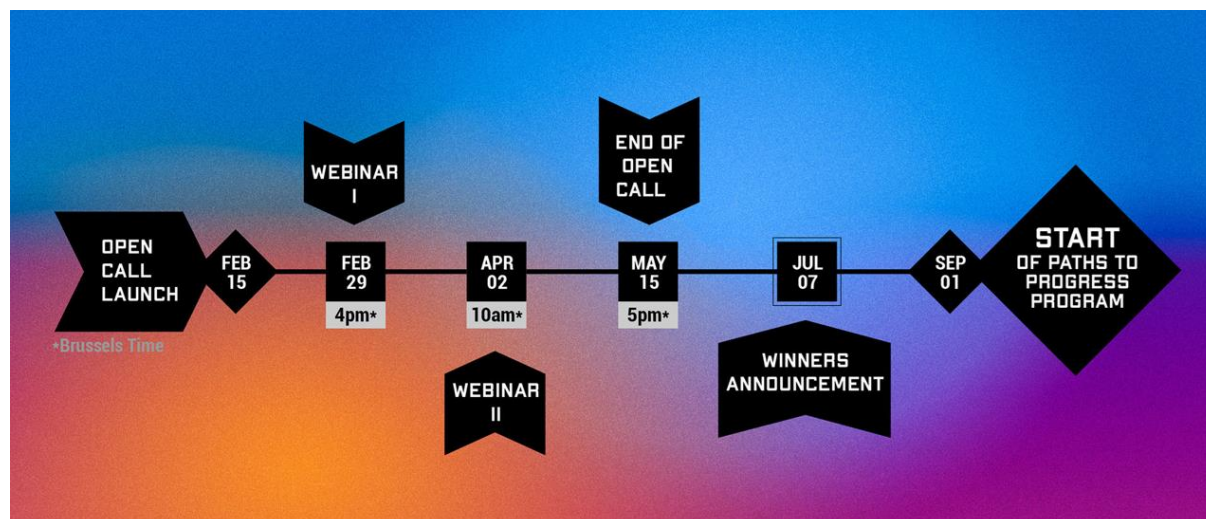
Funded by the
European Union

SCIENCE + TECHNOLOGY + ARTS

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.

Funded by the European Union. Views and opinions expressed are however those

The table below presents the successive phases of the Open Call for End-Users.



Please consider that this is an estimated timeline, and it may change at any time. Changes will be communicated in due time.

What are the Paths to Progress Experiments (PPEs)?

Paths to Progress Experiments (PPEs) is a 14-month support programme to unravel and test the identified issue/problem by the End-User to contribute to a future food system that is more healthy, sustainable, and/or responsible in a concrete test site (e.g., supermarket, bio farm, community garden, production facility, restaurant).

The PPEs are defined as consortia consisting of 2 entities, so that **one industrial End-User (the entity) and one artist (the natural person) collaborate as a team**, to 1) respond to the question (challenge/problem) raised by the End-User and 2) reach the tested prototyping stage with the project resources and within the established timeframe.

The PPEs will demonstrate how **AI-enabled artistic experiments** can effectively lead to human-centered sustainable working prototypes for new agricultural products and services. They will increase inclusiveness, explore ethical considerations, and realize technological progress in unusual meetings of minds from the technological, artistic, and industrial world leading to innovative experiences and artistic prototypes exploring alternative futures for agriculture and food systems design.

What do the different phases of the program consist of?

The Paths-to-Progress experiments consist of 3 stages:

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS
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.



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.

- **Stage 1: Discovery:** Problem definition and solution framing; including matchmaking with artists, identifying scientific input needs and selecting the Hungry EcoCities digital prototype for testing.
- **Stage 2: Prototype Development and Test Set-up:** focus on collaboration with the artist to prepare the selected prototype solution for testing in the real business/ operations environment of the End-User. Additionally, there will be testing of the Hungry EcoCities digital prototypes (minimum of 1) and scientific input integration.
- **Stage 3: Demonstrate:** Prototype validation in the real business/ operations environment of the End-User to verify the prototype system: existing field testing, prototype iteration and experiment validation.

Throughout the support programme, the assigned mentors will assist you in establishing a framework of the PPE (experiment and testing), support in the collaboration and necessary support to focus on the execution of the PPE to realize the prototype solution and to verify the prototype system.

What will be the result of the PPE?

By the end of the support program, the PPEs will have produced 10 prototype scenarios addressing challenges, rigorously tested in an industrial setting. These imaginative prototypes will have attained a TRL (Technology Readiness Level) of 5/6, aligning with a human-centered innovation approach and integrating sustainability goals across the development fellowships in specialized art-industry R&D project partnerships.

What is a TRL?

TRL - 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 being the highest. In our project, we refer to [section B of General Annexes to the Horizon Europe - Work Programme 2021-2022](#) (Horizon Europe) for a full description of TRLs.

What does TRL level 5/6 mean?

TRL level 5 typically indicates that the technology has been validated in a relevant environment. It means that the technology has undergone testing and demonstrated its functionality in a simulated or prototype environment, but it might not yet be ready for widespread commercial use. In essence, TRL 5 suggests that the technology is in an advanced development stage, moving closer to practical application.

TRL 6 signifies a higher level of technology readiness in the development process. At this stage, the technology has typically undergone testing and validation in a relevant environment or prototype system. The focus is on demonstrating the technology's functionality,

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

performance, and potential for integration into practical applications. TRL 6 represents a significant advancement, as the technology has transitioned from a prototype to a stage where it is closer to being ready for deployment in real-world scenarios.

Which actors are defined in the agrifood chain?

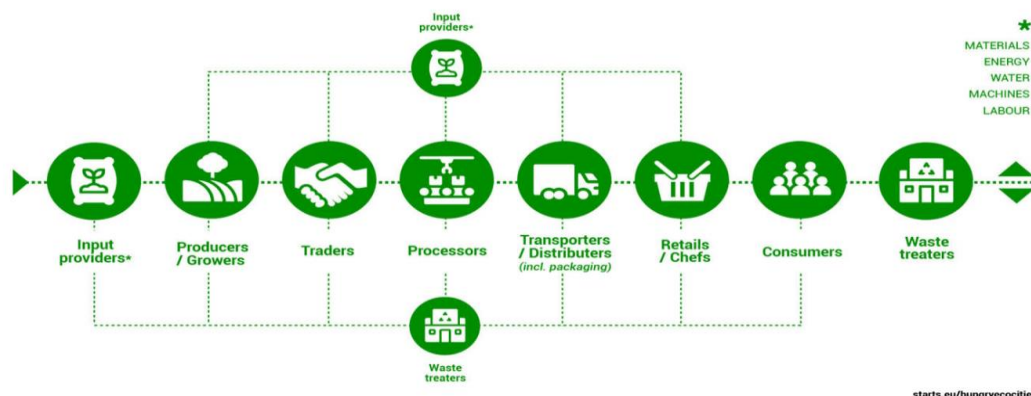
For the Hungry EcoCities Second Open Call, we refer to the following actors in the food chain (as presented in the graph below):

- Input providers
- Producers / Growers
- Traders
- Processors
- Transporters / Distributers (inc. packaging)
- Retails / Chefs
- Consumers
- Waste treaters

We expect the End-Users to be active in one or multiple parts of this chain. For more information, please read our article: [Hungry EcoCities: A journey through rebuilding the food chain.](#)

HUNGRY ECOCITIES
A S+T+ARTS RESIDENCIES PROJECT

Food Chain



When taking part in an open call, should we invite the artist to collaborate with us?

No, it is not necessary. The Hungry EcoCities consortium will enable a matchmaking process seeking an artist (through a call for the Artists in the second stage of this Open Call) to complete the team and prepare an art-driven prototyping proposal on the joint collaboration of End- Users and Artists in the PPE support programme. The full description of the steps

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

within the second Hungry EcoCities Open Call is presented in Section 2 of [the Guide for Applicants](#).

What are the payment conditions?

For the sake of simplicity and transparency, the Financial Support (up to 45 000 Euro grant for End-Users) will be paid against specific Deliverables/Milestones/KPIs defined in the 'Individual Mentoring Plan' (IMP) elaborated at the beginning of the programme. The IMP will become an Annex to your SubGrant Agreement. Please find more details in section 7 of [the Guide for Applicants](#).

The payment schedule can be found below - in the question "What is the payment schedule".

What is the payment schedule?

Payment Milestones	Deliverable	Payment Milestone	% Total Grant	Fixed Lump Sum per project
Open Call for End-Users				
Stage 1 Discovery	Challenge Definition and Card on HEClab	First stage (End-User IMP)	25	11 250 €
Stage 2 Prototype Development and Test Set-up	Use case design	IMP approval (joint)	50	22 500 €
Stage 3 Demonstrate	Experiment Validated	End of Stage (joint)	25	11 250 €
	Total		100%	45,000 €

What services does Hungry EcoCities offer in the Support Program?

Apart from the lump sum, you can expect a service of support through the mentoring sessions on diverse topics as well as several possibilities for networking and learning new skills at different events and conferences. You will become part of the Hungry EcoCities community and have your mentor from the studios, connected to university knowledge and a perspective on responsible arts-based innovation, to guide you through the entire process. The Hungry EcoCities network also includes several experts in communication and dissemination that will help you maximise the impact of the project outcome.

Do I need to travel for the project?

Yes, traveling is part of the PPE. We expect the End-User to join at least one collaborative knowledge-sharing meeting as part of the Hungry EcoCities project. The details of this

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

collaborative meeting will be discussed and formed according to the needs of the different participants and will take place after M7, when the artists join the End- Users, forming the team. We do recommend a second trip to make use of the network opportunities coming from the Hungry EcoCities partners.

Is any accountability required on the way the funds have been used, e. g. invoices and other financial documents? Are there any specific restrictions on how the funds are utilized?

The Hungry EcoCities 2nd Open Call FSTP beneficiaries acting as the End- Users will receive a fixed lump sum of up to 45 000 € - wherein up to EUR 35.000 for End-User beneficiary expenses (personnel, travel, consumables, overhead) and up to EUR 10.000 for subcontracting and dissemination expenses in agreement with the Hungry EcoCities consortium.

The lump sum is a simplified method that means that the financial support recipient is not required to present accounting documents like invoices, timesheets, etc, to prove that the cost was actually incurred. However, Hungry EcoCities will assess your progress and the quality of your work during Interim Reviews, not your accountancy. In this sense, we will ask you to demonstrate the implementation of the project in line with the milestones set. In any case, the lump sum methodology does not release you from the obligation to collect documentation to confirm the costs under fiscal regulation..

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, overheads, and 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 meet 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 (a reference to actual costs as described in Art. 6 of AGA – Annotated Grant Agreement);
- they are in line with your normal practices, usual accounting and management principles (e.g. subcontracting must be awarded using the beneficiary's usual purchasing practices - provided these ensure subcontracts with the best value for money (or if appropriate the lowest price) and that there is no conflict of interest));
- they are reasonable/not excessive;

- they are in line with and necessary for the 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. The 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.

Subcontracting may cover only a limited part of the action, up to 10 000 Euro. If the subcontracting budget is higher than 10 000 Euro, the beneficiary must and should justify it properly.

How should we estimate the budget?

Each project proposal will include a cost calculation in the Implementation section of the application form. Checking the consistency between these costs and the expected work of the project will be part of the evaluation of proposals.

The total cost of each project should be estimated based on the following criteria:

- 1) **Personnel costs:** costs should be calculated with the estimation of the required effort
- 2) **Travel costs:** Costs should be calculated with a min. of 1 European trips;
- 3) **Consumables, equipment depreciation, etc.:** Estimated by a standard practice of the applicant; if relevant (for example: headsets/software/sensors)
- 4) **Subcontracting:** up to 10 000 Euro; if relevant
- 5) **Overheads** (25% of sum of 1+2+3)
- 6) **Total costs** (1+2+3+4+5)
- 7) **Requested funding amount:** Maximum amount 45 000 Euro.

If I foresee subcontracting in my project, should the offers of subcontractors (from which I select a subcontractor) be included in the indicative budget allocation (in the application form)?

You are not required to include offers when estimating the budget. However, please consider that when subcontracting, core activities of your proposal have to be done by you and not third parties. Subcontracting may cover only a limited part of the action, up to 10 000 Euro (to cover technical expertise and e.g. support on communication/ video documentation). Also, subcontracting must be awarded using each 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.

What could the collaboration with technology scientists (AI / Robotics / IoT / Biotech) look like?

S+T+ARTS



Funded by the
European Union

SCIENCE + TECHNOLOGY + ARTS

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.

In Hungry EcoCities we intend to work on increasing the trust and acceptance of digital technologies, in particular AI, within the food chain. AI is believed to have the potential to offer insights and tools into how we can grow and provide food for a growing global population while minimizing our dependence on fossil fuels and increasing the well-being of local environments and people.

The universities (belonging to the partners) provide access to an impressive digital toolbox consisting of available knowledge, programs, solutions and equipment to support the development. This toolbox is divided into three groups: AI tools, Biotech tools, and Digital tools:

- VR
- UAV Robotic Systems
- Explainable AI
- Sociality of AI
- Algorithmic Supply Chains
- Advanced Sensing / Sat data
- Molecular Biology
- Algae/ plant cultivation
- Plant acoustics and spectra
- UV analytics

In specific the universities offer collaboration on the following possibilities:

Leuven.AI:

Leuven.AI is one of the first four “KU Leuven Institutes” bringing together KU Leuven’s world-class AI experts from diverse disciplines in an interdisciplinary research network with societal relevance. Within the Path-to-Progress experiments, they will be available for advice and suggestions on a needs basis to support the PPEs (experiments) from their research in the domains of AR/ VR, Explainable AI, Sociality of AI and Algorithmic Supply Chains. Next to that, they will run specific thesis projects that in particular will focus on following topics;

- 3rd scope of emissions
- Future forecasting and AI
- Recommender system for food (biases)
- Impact of AI decisions in the food system on sustainability, food waste and carbon

The thesis project will be carried out via students of the Master AI program with scientific guidance and components, which would provide the End-Users access to (scientific) knowledge and talent. The End-User shall start in September 2024 to collaborate on the definition of a thesis project by providing applicational context and guidance – this will be done together with a KU Leuven researcher assigned to the End-User.

Mendel University:

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

The Department of Chemistry and Biochemistry at Mendel University in Brno is a hub of scientific excellence and education, offering a wide array of research capabilities in several fields. Their expertise in Molecular Biology is essential for groundbreaking discoveries in molecular aspects of plant and algal production. In Algae and Plant Cultivation, they excel in optimizing growth environments and exploiting bioproduct potential, paving the way for sustainable advancements. Their research in Plant Acoustics and Spectra is revolutionizing the understanding of plant-environment interactions, essential for the development of advanced agricultural technologies.

They aim to provide support and consultancy for End-Users. Partnering with us not only gives access to their knowledge but also to a robust research network and state-of-the-art infrastructure. This combination makes them an ideal ally for those looking to develop innovative prototypes and conduct cutting-edge research, driving forward the boundaries of Hungry Eco Cities.

Brno University of Technology:

The team representing the Knowledge Technology (KnoT) Research Group, Faculty of Information Technology, Brno University of Technology, offers collaboration on various aspects of applied machine learning, large language models, embedded intelligence, power-aware computing, IoT, natural user interfaces, automation, and robotics. They will provide consultancy and support experiments in generative AI, advanced retrieval models for relevancy estimation of scientific data, claim detection and fact-checking, long-life battery operation of IoT devices in agriculture, and automation in waste management. As the faculty is also involved in the cooperation with the Czech supercomputing centre IT4Innovations (which is interlinked with pan-European HPC and supercomputing initiatives) and the team members can offer expertise in optimization and scaling of machine learning tasks, they are also available for advice and help in training and adapting large machine learning models for specific tasks, their quantization, and federated learning.

The team members also lead many student projects and supervise Bachelor and Master theses. In addition to the above-mentioned domains, they will offer the following topics to perform research, test hypotheses, and improve prototypes either resulting from our previous research or developed as a result of the student work. The following laboratory experiments and thesis topics could particularly benefit from the evaluation in the non-academic environment and natural conditions of the participating SMEs:

- Environmental claim identification, extraction of evidence from scientific literature, and fact-checking based on the semi-automatic assessment of the veracity of internet information sources.
- Generative AI and large language models for retrieval-augmented generation and automatic summarization of expert knowledge available in extensive collections of documents.
- Low-power and ultra-low-power IoT data collection, edge-based processing and communication, power-aware computing and dynamic off-loading in the edge-cloud continuum.

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

In the opposite direction, involved SMEs would take advantage of the young talents that will get familiar with their practical problems and the environment, and could extend their collaboration beyond their study or the specific thesis or project. The student's involvement in an SME's application area and the research/thesis supervision by the experts from BUoT will contribute to successfully realising the Path-to-Progress experiments.

What do we mean by the Hungry EcoCities directions?

In Hungry EcoCities we work around 3 directions which are the visions on the future of food as developed by the three residency hosting partners, also known as hosting studios in Hungry EcoCities: Studio Other Spaces (GE), CRA- Carlo Ratti Associati (IT), EatThis (NL) ('The Studios'). The End-Users will work closely with the Studios in sharpening the challenge and designing the solution component(s).

The three directions for the End-User applicants to consider as potential reference or input in the application process are as follows:

1) Mega-scale – EatThis

This direction explores the relative spatial and cultural distance we built between food production and the city: society considered food production as something that didn't require serious cultural attention, while it prioritized cheaper and easier access. How and where it was made or grown wasn't of great interest. This left production in the hands of a purely industrial rationale, a relentless yet arguably successful form of modernism, and transformed it into a black box not to be seen by society. The role of society was mainly the consumption of its output. Food marketers were tasked to make up the space in between with faux-idyllic romanticism which were accepted against one's better judgement. We want to explore these challenges by trying to find an interface where 'our' intelligence matters and can provoke new considerations and thoughts. At a planetary level, we are interested in the logic of production site locations (Where to grow?), including how the urban level seeks to address the opposition between the scale of production needed and urban space available (Gigafactory for Food). On a cultural level, we are interested in exploring how trying to fuse hi-tech and alternative food growing cultures can lead to alternative futures. In each one the role of a specific form of growing, e.g. Controlled Environmental Agriculture (CEA), can be taken as a starting point.

Where do we grow the additional food we need with respect for nature, humans, and culture? What would it mean if a city is to sustain itself? Would it require a giga factory for food production? How will such an integrated system look like? What will it grow? How could technological scaling be combined with alternative growing techniques? Where should we grow in a warming world?

2) City+Farming Synergies - CRA - Carlo Ratti Associati

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

The urban population is projected to grow consistently over the coming decades. For this reason, the urgency has never been greater for cities to establish more efficient and sustainable agricultural practices to keep their residents fed and healthy.

Fortunately, the contours of a functional and sustainable urban agriculture system are beginning to emerge. Stakeholders from different fields are engaging in various forms of experimentation to bring our vision closer to reality. For instance, rooftops, basements and other under-utilized spaces – including ones made redundant by the COVID pandemic – have been converted into hotspots for crop cultivation; Experiments take place in controlled environments to imagine what it would take for farms to be placed vertically on building facades; Forward-looking prototypes have been unveiled at design weeks to involve diverse communities in the conversation.

Among most of these novel endeavors, CRA-Carlo Ratti Associati believes in the use of sensors, artificial intelligence and other digital devices to realize what had not been feasible. Over the years, our studio has undertaken various projects to harness the power of automation with intention and adequate planning, with the goal to help contemporary urban farmers do more with fewer resources. As part of the Hungry EcoCities consortium, CRA will offer its expertise in architectural design and technological innovation its collaboration with the selected SMEs to make agriculture an integral element of the urban landscape, in turn exploring the possibilities of territorial regeneration in urban and peri-urban areas.

3) **Local Conditions - Studio Other Spaces:**

This direction will focus on food cultures and investigate how they must reflect the needs of our bodies, of our communities, of the planet, and the agri-food sector's role in shaping more sustainable cultures. Cooking and sharing food is an activity that ties habitats, communities, individuals and agricultural methods together. Reducing energy consumption in agricultural food production and fostering biodiversity are key goals for us throughout this phase of the project. We believe that conscious awareness of the role of food cultures, including the impact of agricultural practices on our diets, health, and relationships with the environment can lead to more sustainable and resilient food system practices. Our hope is that widespread awareness and collaborative momentum can catalyse novel solutions for feeding the growing global population while respecting planetary boundaries. Today, lighthouse projects already exist in, for instance, regenerative agriculture and circular food systems. **How do we scale smaller, experimental projects of this kind that value regeneration, resilience, and fairness in the agri-food sector?** Studio Other Spaces wishes to support projects that contribute to solving this challenge.

How will local solutions in agriculture and food cultures shape what we grow, what we eat, when and with whom we eat? Can learning about our food systems and telling new stories lead to innovation in, development of, and scaling up regenerative and integrative

agricultural practices? Can it help reconnect people living in urban, peri-urban, and rural communities? Can it radically reimagine sustainable markets and modes of distribution of farm goods? To that end, through outreach and a different kind of storytelling about food systems, can agriculture become a vocational calling for the people who perhaps least expect it?

Who are the Creative Studios in Hungry EcoCities?

Studio Other Spaces (SOS) was founded by artist Olafur Eliasson and architect Sebastian Behmann in Berlin in 2014. Their shared interest in spatial experimentation led them to the holistic approach that defines Studio Other Spaces.

CRA - Carlo Ratti Associati is an international design and innovation office based between Turin and New York City. Founded by MIT professor Carlo Ratti, CRA explores the intersections between the natural and the artificial in the built environment, often tapping into digital technologies to develop projects on every scale of intervention. The office has a long history of putting forward experimental visions for the future of food systems.

EatThis is an international network and movement bringing together over 40 companies from the food sector in a joint mission to realize a sustainable and healthy food system for all. EatThis has a double role in Hungry EcoCities, feeding the project from the industry as well as functioning as a studio headed by Stephan Petermann and Rem Koolhaas, founder of OMA. Rem and Stephan are involved in the project on a personal title.

How does Hungry EcoCities stimulate diversity and inclusion?

Hungry EcoCities encourages applications stimulating diversity and inclusion, referring to different country of origin, country of residence, identity, age, background, impact of the proposal. In Hungry EcoCities, we try to organize diversity and inclusion in different ways: firstly, by asking applicants to take the topic into account in their applications. Secondly, by paying attention to this topic in the evaluation. Thirdly, by organizing for a diverse and inclusive evaluation process and evaluators. Fourthly, by paying continuous attention to this topic throughout the residences and finally by making it part of the dissemination approach.

Can Beneficiaries of the first open call apply for the second one?

No, beneficiaries of the 1st Open Call cannot apply to the Second Open Call.

What is a Conflict of Interest?

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

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., the Applicant entity owns shares in the Consortium partner company or Consortium partner company own shares in the Applicant 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;
- 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. For example, the 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 partners).

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 starts). Time limits do not apply to family and personal relationships.

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

Are UK entities eligible under this open call?

S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.

No, UK entities are not eligible at this time to receive funding. The UK applicants, starting from the 1st of January 2024, are able to participate in the Horizon Europe calls for award procedures implementing the European Union budget for the year 2024 and onwards, which means that the UK applicants are **ineligible** for FSTP Open Calls funded under older budgetary appropriations and Work Programmes (like our Project). UK entities/natural persons can apply in the Hungry EcoCities Second Open Call but will be rejected after the first evaluation phase (Admissibility and Eligibility Check) and will not sign the Sub-Grant Agreement in this project.

The Hungry EcoCities Consortium



S + T + ARTS

SCIENCE + TECHNOLOGY + ARTS



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.