

AIRISE Open Call 1

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Document Guide for Applicants
Version 1.2

Content

1	Abstract.....	2
2	Call Aim and Topic	3
2.1	Services.....	4
2.2	Tutors	4
2.3	Business Case	4
2.4	Reporting.....	4
2.5	Dissemination.....	5
3	Conditions and Eligibility	6
3.1	Eligibility requirements and financial limitations	6
3.1.1	Persons or categories of persons which may receive financial support (FSTP).....	6
3.1.2	Activities for which a third party may receive financial support	6
3.1.3	Experiment Aims and Type.....	6
3.1.4	Criteria for calculating the exact amount of the financial support.....	6
3.1.5	Maximum amount to be granted to each third party	7
3.2	Criteria for awarding financial support to Experiments	7
3.3	Publication	8
3.4	Reimbursement of proposal preparation.....	8
4	Proposal Submission.....	9
4.1	Communications and Data Processing.....	9
4.2	Submission and evaluation	10
4.3	Contractual conditions	10

1 Abstract

This document collates the rules and conditions to be applied for the Financial Support to Third Parties (FSTP) funding scheme to support Experiments through the competitive calls within the AIRISE project. The document is addressed to potential applicants and aims at being a practical guideline for successful application.

The aim of AIRISE project is to accelerate the uptake of Artificial Intelligence (AI) in the context of manufacturing throughout the European Union. AIRISE is offering services that support SMEs in this uptake by means of assessing challenges, creating implementation concepts, recommending tools and running experiments and is creating offerings to provide impartial access to the best European AI knowledge and resources to support this adoption.

To build a truly pan-European initiative, there are several renown research institutes and best-of-breed consulting companies involved in the AIRISE project, from Germany, the Netherlands, Spain, Greece, Poland, Bulgaria among other countries. These partners will provide the technological backbone for guidance and support in transferring ideas to applications in a profitable way and will manage the "AIRISE Services Offering".

Further information about the AIRISE project is available through project website and Cordis portal. AIRISE is co-funded from the European Union's Horizon Europe research and innovation programme under grant agreement No 101092312, foresees as an eligible activity the provision of financial support to third parties, as a means to achieve its own objectives. The types of activities to perform that qualify for receiving financial support are detailed in the guide for applicants.

<https://www.airise.eu/>

2 Call Aim and Topic

AIRISE aims to conduct so called “experiments” to support European SME’s and mid-caps to develop their idea of using artificial intelligence at their manufacturing shop floor. The AIRISE project provides support through services across all development steps from the idea to running test under realistic manufacturing conditions. These services are meant to teach and guide the applicants under the paradigm of empowerment. They shall enable the applicants to grow, to learn how to tackle future challenges with less support. The initiative runs under the umbrella of European Commission’s initiative “ICT Innovation for Manufacturing SMEs (I4MS2)”.

The call aims to support European SMEs and midcaps to create AI applications that support their manufacturing lines in being more sustainable with less waste and energy consumption, being more agile secure and resilient to changes and being more attractive for employees to mitigate effects from age, gender, or social and cultural background.

The anticipated AI application must address at least one of the following objectives:

- Improve the sustainability of processes and products, significantly reduce or reuse waste and must lower the energy and carbon footprint
- Make industrial processes more agile, secure and resilient to future changes
- Make manufacturing jobs more attractive for humans, whichever the age, gender or social and cultural background, through better human-machine interfaces and more intuitive interaction with digital tools

The applicants need to provide the following in their proposal to be selected for support:

- An innovative application idea on using AI to support the proposer’s manufacturing environment towards an economically and technologically viable application.
- A description about which objectives are addressed and what the application will contribute to the objectives.
- Challenges connected to the application idea, which the proposing entity intends to resolve with the help of AIRISE services. The proposal needs to describe these challenges and how they are expected to be resolved by the selected service.
- The proposal needs to describe the impact on environmental, economic and societal aspects of the SME’s manufacturing operations.
- List of expected effort to conduct the experiment. These expenses need to be split into cost for labour to execute work and prepare deliverables and cost for external goods and services (consumables, data handling, testing).

Potential impacts of the proposed application must be based on actual and realistic scenarios.

The criteria for selection are:

- Excellence of the idea and approach: The objectives of the application experiment must be SMART (specific, measurable, assigned, realistic, time-bound) and must demonstrate a clear focus on the application area and describe the need of support from the AIRISE technology building blocks.

- Quality and efficiency of the implementation: The proposed work plan needs to contain all necessary actions that are needed to achieve the objective and to prevent risks to occur. Resources need to be realistic with respect to amount and timing.
- Relevance to manufacturing in Europe: The application experiment needs to have a clear European dimension – either by carrying out cross border experimentation or in other ways expanding the impact of local experiments to European scale.

Please find an explanation of the criteria in one of the next sections.

2.1 Services

AIRISE offers AI related services through its services area (more details in Annex 1). These services aim to support the Experimentation Teams to increase their knowledge and competence so that the Experimentation Team is able to come to a state where the application is fully defined, and a deployment can be considered.

Each experimentation team needs to describe its lack of knowledge, the selected services and how the selected services are expected to close these knowledge gaps. The proposal needs to define an "Experimentation Plan" for this, and the amount of service expected from AIRISE needs to be quantified. This amount of support from AIRISE may not exceed 2 person months.

2.2 Tutors

AIRISE uses tutors to lead the Experimentation Teams through their experiments. Tutors are assigned after selection of the proposals.

2.3 Business Case

Each proposal needs to describe the business case that drives the experiment. The analysis needs to be based on actual market data and needs to cover the application's life cycle from idea through development to its use in manufacturing. The corresponding economic and technological feasibility needs to be explained and the risk factors need to be identified.

2.4 Reporting

The Experimentation Teams need to provide information on the execution and achievements through AIRISE reporting and controlling tools. The three major reports with a public and a confidential part are

- 1) Initialisation Report – As a result of the first collaboration of the Experiment Team with its guide and the service providers, a report of the initial situation and the actual planning needs to be filed. It includes the business case analysis, implementation plan, risk register and progress indicators.
- 2) Implementation Report – A deliverable that reports on the implementation of the planned service execution. It includes activity reports, achievements descriptions, risk register update and an explanation on the progress indicators. The business case analysis needs to cover most recent changes at that time.
- 3) Validation Report – A deliverable that reports and demonstrates the result of the executed work with respect to the business case and the implemented product. It includes a risk report, exploitable results and a comparison of planned progress against achieved results.

On a regular basis, status updates need to be provided to the tutor of the Experimentation Team for monitoring of progress and risks. Periodically, members of the experimentation team will be asked to provide feedback on the usability of the controlling tools and suitability of the services. The result of the questionnaires are part of the above deliverables.

2.5 Dissemination

The Experimentation Teams need to provide a publishable story, pictures and video footage about their product idea and their experimentation work. Media files need to be of high resolution but do not need to disclose IP. Story, pictures and video footage are part of the deliverables.

Each Experimentation Team will need to visit at least one public event that takes place within the European Union or, if this should not be possible, take part in a video interview session, which will be recorded and disseminated by the AIRISE project, to present achievements and results of the initialisation experiment. The cost for travel and subsistence are eligible and need to be included in the proposed budget.

The final result of the experiment needs to be described so that the evolution of the product idea, the achievement and the effort that was invested becomes publically visible while the underlying IP remains confidential.

3 Conditions and Eligibility

3.1 Eligibility requirements and financial limitations

Applicable requirements and limitations are in line with Grant Agreement n°101092312 signed by the AIRISE partners and the European Commission. The actual support is provided on the basis of Annex K of the Horizon Europe Model Grant Agreement through Financial Support to Third Parties (FSTP).

3.1.1 Persons or categories of persons which may receive financial support (FSTP)

A legal entity that applies for financial support needs to have a validated PIC number. Research and technology development organisations are not eligible, nor consortium members.

Experimentation Team consists of at least one legal entity of SME or mid-cap type that aims to use the AI application idea into its manufacturing system.

3.1.2 Activities for which a third party may receive financial support

3.1.2.1 Third parties conducting an experiment

SMEs or mid-caps that conduct an experiment may receive funding for personnel and consumable resources to develop and propose the innovative approach in using AI in their manufacturing environment, to design and construct the application and to implement and run it for validation. The financial support also covers expenses for consumables, travel and subsistence which are needed to enable the execution of the experiment.

3.1.3 Experiment Aims and Type

The experiment needs to have an impact on European business and employment thus achieving an economic benefit. It needs to address at least one societal challenge: Environment, Energy, Mobility, Health and Well-being, Security with a key focus on green production.

Cost for the entire action of third parties include all eligible cost such as personnel, consumables and travel. Subcontracting should be minimal, more than 15% subcontracting of the cost of the entire action is considered to be an inefficient implementation of the action. The applicant needs to provide reasons why subcontracting is needed for the conduction of the experiment. Cost for durable equipment (depreciation) will not be funded.

3.1.4 Criteria for calculating the exact amount of the financial support

The exact amount of the maximum financial support will be calculated on the basis of the cost that is specified by the third parties. Each party has to provide personnel direct cost (without overhead) and the planned effort. Each party has to specify other costs such as consumables and travel costs if applicable. Equipment (depreciation) will not be funded. Based on the appropriateness of the given cost that is judged by the evaluators and the consortium, a lump sum for the support is being calculated from 70% of the total cost (direct cost plus 25% flat rate to cover overhead cost). This lump sum will be paid in separate instalments that are connected to the acceptance of deliverables as defined in this guide for applicants, Section 4.3.

3.1.5 Maximum amount to be granted to each third party

No single party may receive more than 40k€ from the AIRISE consortium per call unless it is necessary to achieve the objectives of the action.

3.2 Criteria for awarding financial support to Experiments

The proposals will be evaluated against three criteria.

#	Name and Explanation	Weight / Threshold
1	Impact of the experiment and the anticipated result: Potential impacts of the proposed products or businesses cases must be based on actual and realistic scenarios. The anticipated solution must address a potential market that leverages the requested financial support. The experiment must provide information for communication to the public so that the community can follow its progress.	Weight 1 Threshold 3/5
2	Excellence of the idea and approach: The objectives of the application experiments must be SMART (specific, measurable, assigned, realistic, time-bound) and must demonstrate a clear vision from the defined start to finish. The use of services needs to suit the objectives and needs to support the path towards the final solution.	Weight 1 Threshold 3/5
3	Quality and efficiency of the implementation: The selected services and the approach must address the AM digital design and manufacturing challenge. The Experimentation Team needs a clear lack of knowledge in the area where support is requested and sufficient basic competence to learn and adopt. The resource allocation needs to be appropriate.	Weight 1 Threshold 3/5

The selection of the open call proposals will be realised in a three-step process. Step one will be the eligibility check based on the criteria laid out in this guide for applicants. Step two will involve external evaluation to assess the proposal according to the criteria. All proposals that receive sufficiently high marks in all three criteria will go to the third step. Step three will involve the consortium to prioritise the proposals based on the external evaluation result, the expected impact, the project resources and coverage of the objectives of the project in general.

In Step 2, the proposals are evaluated externally according to the criteria set out above. Each criterion will be scored with the following scale (half points are allowed):

- 0: The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information
- 1 (Poor): The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses

- 2 (Fair): While the proposal broadly addresses the criterion, there are significant weaknesses;
- 3 (Good): The proposal addresses the criterion well, although improvements would be necessary
- 4 (Very good): The proposal addresses the criterion very well, although certain improvements are still possible
- 5 (Excellent): The proposal successfully addresses all relevant aspects of the criterion in question.

Proposals which fail to achieve a score of at least 3 for any of the criteria cannot be funded (score threshold), all other proposals are taken to Step 3.

In Step 3, the consortium will further prioritise the proposals to balance service resources and to cover call objectives such as European impact and cross border innovation best. Funding is then awarded to the most highly prioritised proposals.

3.3 Publication

The call for proposals / open call will be published on the AIRISE website and will remain open for 2 months. It will be communicated through social media and on the web page of the Commission. The primary source for documents remains at the URL of the AIRISE web site (www.airise.eu).

3.4 Reimbursement of proposal preparation

Expenses incurred in the preparation and dispatch of the proposals will not be reimbursed.

4 Proposal Submission

Project Acronym	AIRISE
Project GA#	101092312
Project full name	Artificial Intelligence for resilience in manufacturing SMEs
Call Identifier	AIRISE OC1
Call Title	AIRISE Call 1 for proposals on innovative AI applications that support manufacturing
Publication Date	01. May 2023
Deadline	30. June 2023 17:00 Brussels Local Time
Expected Duration	4-8 months
Total Budget	400.000 Euros
Maximum amount of financial support for a third party	40.000 Euros
Eligibility	See guide for applicants
Proposal language	English (UK or US)
Proposal content	One proposal per experiment with a clearly identified lead partner. Content and structure should be based on the template addressing the topics detailed in this guide for applicants.
Proposal length	The cover page and administrative data like partner details and proposal name should not exceed three (3) pages if printed on A4 paper at 11pt font size. The maximum length of information provided in all sections of the proposal should not exceed ten (10) pages if printed on A4 paper at 11pt font size. Any additional content may be truncated before evaluation or rejected during submission.
Submission	Through the website www.airise.eu/submission
Questions	call-for-proposals@airise.eu
Further information	www.airise.eu/calls

4.1 Communications and Data Processing

The mail account is handled by the project's office team. The identity of the sender and the content of the proposal will be treated confidentially within the consortium. The proposal document will be stored on a collaboration platform where only consortium members have access. The proposals will be evaluated by external experts under confidentiality regulation. The data that is needed for the evaluation will be exchanged with the experts by e-mail. Such data includes the name of the proposing entities per Experimentation Team to achieve a declaration of non-conflict of interest with the evaluator(s). After that, the proposal is being

transferred and the evaluation returned. The result again will be filed on the collaboration platform of the AIRISE consortium.

Any questions concerning this call shall be submitted in writing not later than 3 days before the closing date to call-for-proposals@airise.eu. Questions shall make specific reference to the appropriate section(s) of this document. Questions received via call-for-proposals@airise.eu may be published on the AIRISE web site.

4.2 Submission and evaluation

In order to apply for this call, applicants need to submit a proposal that contains information according to the requirements listed in this guide for applicants. The responsibility for a successful and timely reception remains with the applicants. Proposals arriving after the closing date and time will not be taken into consideration. After evaluation, the lead partner of each Experimentation Team will be informed of the result of their proposal's evaluation by e-mail.

AIRISE will offer submission through its website. This will be communicated on the website once it is available. Submissions by other means will not be taken into consideration.

4.3 Contractual conditions

The Experimentation Teams of each selected proposal can consist of multiple legal entities. In cases where a proposal consists of more than one entity, a lead entity needs to be defined that is responsible for communication and reporting. All legal entities will sign one contract per Experimentation Team with the coordinator of the project. Legal entities that are selected for funding become a Third Party of the consortium using Cascade Funding (also known as sub-granting).

Subgrantees must comply with the rules and the principles mentioned in Section I, Article 6 (Eligible and ineligible costs) of the Grant Agreement (for information see Horizon Europe AMGA – Annotated Model Grant Agreement in its' latest version, even if it is in draft status) in the same way as the beneficiaries of the AIRISE project. The rules concerning eligibility of costs, identification of direct and indirect costs and upper funding limits can be found in the Horizon Europe AMGA.

The beneficiary of the EU grant must ensure that the recipients of the financial support allow the Commission, the European Anti-fraud Office (OLAF) and the Court of Auditors to exercise their powers of control on documents, information, even stored on electronic media, or on the final recipient's premises (see ruling in AMGA).

Beneficiaries need to declare their lack of any conflict of interest with AIRISE partners. This will ensure to prevent any situation where the impartiality and objectivity of the awarding action is compromised for reasons involving economic interest, political or national affinity, family or emotional ties or any other shared interest ("conflict of interest"). Applicants who cannot declare this will not be awarded.

The IP of the experiment's results generated by the Subgrantee will be owned by it. Subgrantees grant the AIRISE consortium partners access to the results, for the pursuance of the objectives of the Project and the exploitation of the Project's results in accordance with the GA.

Payment scheme for experiments:

- 30% after approval of the initialisation report.

- 40% after approval of the implementation report.
- 30% after approval of the validation report deliverable and approval of the experiment outcomes by the commission.

5 Annex 1: AIRISE services available to applicants

For Open Call 1, the following service groups will be available for selection by applicants:

Design and Engineering AI Services

- Optimisation of product design and engineering with AI algorithms that analyse experimental data
- Exploration of design spaces in engineering systems design with AI-based simulation and analysis
- Use of machine learning for support of human designers
- Facilitation of materials design and selection for optimal product and production design

Process monitoring and control AI Services

- Defect detection for in-process quality control assurance with AI-based quality models
- Control for manufacturing processes with AI-based control loops
- Decision mechanisms for manufacturing control based on AI models of manufacturing processes

Manufacturing Operations AI Services

- Condition monitoring for predictive maintenance with AI based deviation detection
- Perception for collaborative environments with AI driven image analysis and data fusion
- Event detection for increased safety mechanisms with AI based environment monitoring and analysis

Production Chain AI Services

- Decision support tools for execution planning with AI based variant analysis
- Defect monitoring for quality assurance across the production chain with AI driven data analysis
- Capability and performance monitoring for increased production efficiency with AI based data mining
- Property propagation monitoring for tolerance management along the production chain with AI guided cause analysis

Supply Chain AI Services

- Optimization for augmenting existing logistics software towards an efficient warehouse management service with AI based variant analysis
- Provision of use case adaptation methodologies with ML algorithms

Training Services

- Tailored training for adoption of AI related services provided by AIRISE
- Courses for learning of ethics assessment methodologies and requirements connected to the use of AI
- Pilot sessions for creation of data collection and management data strategies
- Online meetings for sharing of AI development experience
- Meet-ups for exchange about the management of AI technology deployment and use