



Met Éireann Weather and Climate Research Programme

Call for Proposals



Met Éireann Research Call 2023

January 2023



1 Met Éireann Research Call 2023 - Important call information

1.1 Objectives

MET ÉIREANN Research Call 2023 is a competitive research call for applications, open to all Irish Higher Education Institutions.

Two research topics are of specific interest (Met Éireann – TRANSLATE Call 2023 and Met Éireann – Code Performance Call 2023) and are described in sections 1.5 and 1.6 respectively below.

1.2 Dates

- Call open: Tuesday 24th January 2023
- Call deadline: Friday 3rd March 2023 at 17:00.
- The system will automatically prevent application submission after the deadline.
- Results expected: Q2 2023.

1.3 Submission platform

Please use the MET ÉIREANN grant platform to submit your application (best with Edge, Firefox or Chrome), following the instructions therein: <https://meteireann.grantplatform.com/>.

1.4 Support

If you have any questions on the application process, please contact MET ÉIREANN's Research Funding Office by email to researchfunding@met.ie.

1.5 Topic 1: Met Éireann – TRANSLATE Call 2023



Climate services are scientifically based information and products that enhance users' knowledge and understanding about the impacts of climate on their decisions and actions. These services are made most effective through collaboration between providers and users.

This topic is aimed at building on the [TRANSLATE](#) project's outputs to standardise climate projections and to develop national climate service products (which will be made available to the applicants), with a greater emphasis on making products already developed available, developing training/communication material and supporting stakeholder queries and stakeholder needs.

Project-based applications from research teams within Irish HEIs are sought.

International collaboration is desirable (demonstration of collaboration with international partners will attract additional marks).

Max. total budget: €800k

Max. total months: 24

Expected deliverables include:

A. Further develop the standardised climate projections for Ireland

Build on outputs from TRANSLATE helping to make this premium data set more usable. Areas of interest include:

- o Maintain the standardised projection dataset developed under TRANSLATE and increase the ensemble membership to include suitable CMIP6 and HCLIM climate projections covering Ireland.
- o Develop and provide standardised climatological parameters including wind, solar radiation, relative humidity plus more.
- o Integrate standardised projection datasets into national climate service infrastructures (e.g. Climate Ireland, Met Éireann).
- o Develop a training course to train national climate service developers in the use of these Irish standardised climate projections.

- o Support queries including data retrieval queries on the standardised projection dataset.

B. Develop and collate case studies demonstrating the climate service development cycle

- o Identify priority climate service requirement from user needs.
- o Develop a climate service using the national standardised climate projections and WMO best international practice.
- o Integrate output into the National Framework for Climate Services and operationalise as appropriate.
- o Publish peer reviewed paper, project report and promotional/educational material

C. Develop sector specific climate services

- o Following methodologies developed under TRANSLATE to further develop indices and climate risk based products.
- o Integrate these into the National Framework for Climate Services.
- o Support the development of the National Adaptation Framework and Sectoral Adaptation plans with climate service products.

D. Develop Irish climate change scenarios and storylines

It is envisioned that work in this area will focus on some or more of the following topics:

- o Conduct review of international examples of climate change scenarios and storylines.
- o Host workshop to develop appropriate Irish scenarios, including low likelihood, high-impact scenarios (High++), with cross-sector relevance.
- o Develop these scenarios analysing the national standard projections.
- o Develop and execute a communication strategy including the development of graphical communication assets and appropriate online hosting.

Funding will be provided on a discretionary basis by MET ÉIREANN to a Grantee on the terms and subject to the conditions set out in the Research Call's Terms and Conditions to undertake a Project for a maximum of 2 years and a maximum budget of €800k.

1.6 Topic 2: Met Éireann – Code Performance Call 2023



Met Éireann's Numerical Weather Prediction (NWP) activities require collaboration and involvement in a number of international consortia and projects. Research and development of the operational HARMONIE-AROME model is carried out within the 26-partner ACCORD consortium, in which Met Éireann is heavily involved. From 2023, joint operations will be shared with the UWC-West national meteorological centres on a common high-performance computing (HPC) system, and it is expected that these four partners will be joined by six others in operating a common federated HPC system by the end of the decade (UWC).

Scientific and technological advances continue to push operational NWP models to higher and higher resolutions. At present there is significant interest in the performance and potential of limited-area models, such as HARMONIE-AROME, running at horizontal resolutions of the order of a few hundred metres, with the aim of improved prediction of extreme weather events. The Destination Earth project, an initiative by the European Commission, is one of the drivers of these developments. Despite the advances, however, there are serious concerns over the future scalability and efficiency of NWP and climate models, and the ability of the current codes to optimally exploit emerging HPC architectures.

Applications to contribute to the international research and development on the performance of NWP codes on emerging HPC systems are sought in this topic.

In collaboration with the NWP team at Met Éireann and international colleagues, the successful research team will enable model software to run efficiently on the latest HPC technology, in particular exploring novel architectures such as GPUs along with traditional CPUs, and the coding changes required to properly exploit these. This work will also be linked with ACCORD's transversal work package SPTR1, "Addressing future evolutions of software infrastructure".

Project-based applications from research teams within Irish HEIs are sought.

International collaboration is desirable (demonstration of collaboration with international partners will attract additional marks).

Max. total budget: €600k

Max. total months: 24

Expected deliverables include:

a) Development of the HARMONIE-AROME code in a range of possible areas

Including:

- Code refactoring and adapting model cycles to existing and emerging technologies such as GPUs, and optimising for existing HPC platforms
- Implementing and evaluating the Atlas framework of the ECMWF into the limited-area HARMONIE-AROME system
- Use of domain-specific language (DSL) toolchains to generate efficient hardware-specific code

b) Collaboration with international NWP consortia and contribution to related activities

c) Communication of results to various audiences and stakeholders, including publication of reports or scientific papers as appropriate

Funding will be provided on a discretionary basis by MET ÉIREANN to a Grantee on the terms and subject to the conditions set out in the Research Call Programme's Terms and Conditions to undertake a Project for a maximum of 2 years and a maximum budget of €600k.

2 Met Éireann Weather and Climate Research Programme

Science Serving Society

At the end of 2017, MET ÉIREANN launched its 10-year strategy “[Making Ireland Climate and Weather Prepared](#)”.

Within the strategy, the following six strategic goals are identified:

- Enhance support for impact-based decision making for weather events;
- Provide climate information services which promote the safety of citizens and supports economic and environmental resilience;
- Deliver a high quality national flood forecasting service;
- Continue to provide an effective authoritative voice on meteorology in Ireland;
- Maintain and support an expert, professional workforce;
- Lead a modern, integrated meteorological infrastructure and support an enterprise environment for weather and climate services.

Research funding, a key component of MET ÉIREANN’s 10-year strategy, is driven by the Programme for Government commitments, including investments required to support a research programme focused around addressing the societal challenges of climate change and extreme weather in a warming world.

MET ÉIREANN’s Weather and Climate Research Programme underpins the expertise and knowledge needed to enable the delivery and continuous improvement of national predictive capability in the areas of weather, climate and hydrology and to ensure that, particularly in the climate context, research outputs provide the evidence and tools necessary to inform government policy and action.

MET ÉIREANN’s Weather and Climate Research Programme’s mission is to contribute to the development of national capacity and to address key scientific questions in response to the challenges and opportunities facing Ireland from an extreme weather and changing climate’s perspective.

MET ÉIREANN Research Call 2023 in particular is aimed at increasing national numerical weather predication modelling capacity and contributing to the provision of high quality climate services to key users and sectors.

MET ÉIREANN welcomes research in the spirit of diversity, inclusivity, cooperation, co-creation, collaboration, open data and multidisciplinary.

3 Met Éireann Research Call 2023 - Requirement

A lead applicant will be requested to closely collaborate and ensure knowledge transfer with Met Éireann and its stakeholders.

4 Met Éireann Research Calls 2023 - Governance Structure

To ensure each Project is implemented in line with best practice, Project steering committees of experts will be established. Prior to this, Project evaluation boards will be established to select the most appropriate research proposals.

5 Met Éireann Research Call 2023 - Indicative Project timelines

The following are Met Éireann Research Call 2023's indicative timelines:

January 2023	Publish Research Call 2023
March 2023	Applications Deadline
March/April 2023	Evaluate proposals
Q2 2023	Award contracts
Q2/Q3 2023	Successful applicants begin Projects
Q2/3 2023 – Q2/3 2025	Projects ongoing

6 Met Éireann Research Call 2023 - Additional information

6.1 Supporting Data

Applicants should provide evidence that existing datasets are available and accessible (either reference open databases, or provide a statement of ownership or letter from the data owner to say it will be made available). All Project proposals must clearly define the research question, methodology, expected outputs, expected impact and dissemination activities. For MET ÉIREANN hosted data, the relevant members of MET ÉIREANN staff should be contacted prior to submission to ensure availability (contact researchfunding@met.ie if you require specific information/contact details).

6.2 Duration of Project

The Projects may be up to 24 months' duration¹. The proposed Projects' duration must be appropriate for the Project described. Projects are expected to start in July 2023 with latest possible start date of late Q3 2023.

6.3 Host institute and location

The Host organisation must be a Higher Education Institution in Ireland, however, as the research Projects will be components of a larger research programme, member(s) of the successful team may be required to be located and/or attend for meetings in one the MET ÉIREANN offices (and/or remotely whenever required) an estimated 20% minimum of their time for the duration of the Project. This is to ensure integration of the research activities and outputs into the wider programme, and also to provide access to the facilities and data required.

6.4 Definitions

Project – the Project is the overall research Project as proposed by the Applicant. It should be of sufficient scale to deliver the research outputs and include nominated staff positions (e.g. Postdoctoral Researchers) as appropriate for the work.

Host organisation – this must be a Higher Education Institution in Ireland². Valid tax clearance certificates must be supplied on request.

Applicant – the Applicant is the person responsible for submitting, leading and managing the Project. They must be employed or planned to be employed in the host organisation and will act as the primary point of contact. They must hold a qualification/have relevant experience in the aspect of the work to be undertaken (this must be demonstrated in their CV).

Collaborators – Collaborators have a specific role in the Project but do not receive funding. They may be providing expertise, data etc. as appropriate to support the Project.

Authorised person – the Application must be signed by the Research Office/Authorised Official of the host organisation. The signature indicates the organisation's willingness and ability to host the award in terms of financial, human and physical resources required.

6.5 Eligibility

All criteria listed in the definitions must be adhered to.

¹ There may be an option to extend the project in which case a decision will be based on the reports submitted and a full review ahead of month 24 and an assessment of the overall outputs and needs of the Project at that time. All initial project descriptions must be limited to 24 months.

² As recognised by <https://hea.ie/higher-education-institutions/>.
For any clarification please contact researchfunding@met.ie.

Applications from researchers who are currently outside Ireland are only eligible if the Applicant will be physically and administratively hosted in an organisation in Ireland, full-time, for the duration of the award.

CVs for the Applicant and each Collaborator must be submitted with the proposal and must demonstrate the ability of each to carry out their responsibilities within the Project.

6.6 Researcher profile and CVs

The Applicant must include, as part of their Project description, a CV which should be no longer than 4 pages and must include:

- Contact details
- Recent employment history
- Academic qualifications or equivalent experience
- Publications
- Other information relevant to the proposal*

Collaborators must attach a CV which should be no longer than 4 pages and must include:

- Contact details
- Recent employment history
- Academic qualifications or equivalent experience
- Key Publications
- Other information relevant to the proposal*

*For all information regarding funding secured to date:

- You must clearly state your role in any Project listed (Lead/PI/Partner)
- If you were an unfunded collaborator this can be included but it must be clearly stated you were not funded.
- Any funding awarded/decision pending must clearly state how much funding has been/may be awarded to the Applicant and not the total value of the Project to the whole consortium or institute.

Misrepresentation of research grants awarded/pending is considered a serious breach of ethics and terms and conditions. Any misleading information found in applications for funding will result in the application being returned without review. Information provided may be queried with other named funding agencies if necessary.

6.7 Submission

The call comprises a one stage application process. Full proposals must be submitted using the <https://meteireann.grantplatform.com/> submission platform before the call deadline. Any applications not adhering to submission and formatting rules, or received after the deadline, will be deemed ineligible and will not be reviewed.

Proposals must be submitted by **5pm, Friday 3rd March 2023**.

6.8 Impact

The outputs of the Project will be expected to be integrated into the wider MET ÉIREANN's Strategic Plan 2017 – 2027 and activities. Details of how this can be achieved must be included in this section.

This section should also comprise any additional impacts; positive impacts on two or more of the following should be described;

- Scientific discovery,
- Development of new methodology/toolkits,
- Development of new software/prototypes, and/or
- Significant contribution to policy and governance.

This section should clearly show how the Project will impact these areas and whether the expected impact is short, medium or long term. This section is a maximum of 2,000 words.

6.9 Communication and dissemination plan

Dissemination of the Project outputs are expected as standard and a clear communication plan should be clearly described including timing of known conferences, events, outreach activities, etc. This section is a maximum of 2,000 words.

6.10 Budget

All values must be presented in Euro.

6.11 Eligible costs

Examples of eligible costs (list not exhaustive)

- Total salary costs of the team members (including all pension, taxes etc.)
- Consumables (e.g. access fees)
- Software licenses
- Publication fees

- Travel
- Indirect costs

Examples of non-eligible costs (list not exhaustive)

- Salary/staff costs for other staff in the Host or Collaborator organisations (including mentors)
- Maintenance contracts
- Office equipment/furniture
- Durable equipment

If there are any queries regarding eligible and non-eligible costs please contact researchfunding@met.ie before submitting your proposal.

Financial reports signed by the Institute finance office will be required annually. Payments will only be made once these are received and approved by MET ÉIREANN.

Projects can be co-funded by cash/in-kind contributions from Collaborator organisations though this is not a requirement; in such cases, the total cost of the Project including the partner contributions and MET ÉIREANN funds requested must be included.

In-kind contributions can include personnel time, access to facilities, access to existing data, etc.

6.12 Budget Justification

This section should clearly justify the planned expenditure including expected timings. This section is a maximum of 1,000 words.

6.13 Project description

This section should be uploaded as a separate PDF (see application attachments) and comprise, **in no more than 20 pages**:

- (i) Strategic context and rationale for the Project including background information, state of the art and reasons for addressing the issue now. The Project should also clearly demonstrate how the results of the research will be incorporated into the wider programme of work in [MET ÉIREANN's Strategic Plan 2017 – 2027](#), and/or how the research will bring added value to that programme.
- (ii) Objectives and scientific/engineering targets beyond the state of the art. This should outline how the Project will expand our knowledge beyond current understanding and clearly outline the objective of the planned work.

(iii) Methodology & Implementation plan should include the approach to be used along with timelines, milestones for the Project and any information relevant to the efficient management of the Project.

(iv) Outputs. The outputs should be well defined, ambitious and realistic. They should link clearly to the milestones and timing of the Project as well as the budget. Details must be provided alongside some examples, e.g.

- New models,
- New digital data set(s),
- Development of new methods, equipment, techniques, technology or cross-disciplinary applications, and
- Presentations at international conferences and publications in high impact journals.

Text font in the file submitted should be no smaller than Arial 11 with page margins no less than 2.5cm. Only PDF files will be accepted.

6.14 Reporting

The Project must be completed within the designated time. Annual reviews will be scheduled before the start of the Project. These will include written activity and financial reports. In addition to the reports submitted as required deliverables throughout the Project, a final report summarising the Project's results must be submitted at the end of the Project. Failure to submit these reports on time will result in payments being withheld and/or exclusion from subsequent MET ÉIREANN calls. Reporting templates will be provided.

As part of the reporting procedures, successful applicants may be asked to present their results (oral or poster presentation) at MET ÉIREANN event(s).

If the annual reports indicate that the Project is (i) not adhering to the terms and conditions, (ii) is significantly behind schedule, and/or (iii) is not adhering to the Projects described in the contract, MET ÉIREANN reserves the right to withdraw funding.

Additional costs may be requested if clearly justified however, funding is not guaranteed. Please contact researchfunding@met.ie if you have queries.

6.15 Review process and criteria

Once received, all applications will be checked for eligibility. Projects that are deemed ineligible, beyond the scope of the call, or not responding to Project requirements will not be reviewed. Eligible applications will be reviewed by experts and assessed under the following criteria:

- Quality of Scientific/Engineering Project described (40%);
- Impact (25%);
- Quality of the proposed team including Applicant and Collaborators (25%);
- Implementation, management plan and value for money (10%).

Please remember, the review panel will include international experts who may be unfamiliar with specific Irish acronyms etc.

The review panel will also include a senior member of the MET ÉIREANN Weather and Climate Research Call Programme team to ensure relevance to the Programme. For this reason Applicants may not contact MET ÉIREANN staff to solicit information, lobby or discuss potential Project applications. All queries must be directed to the MET ÉIREANN's Research Funding Office at researchfunding@met.ie. Applicants breaching this rule will be deemed ineligible.

6.16 Ethics

All proposals are expected to adhere to standard ethics rules (see EU ethics page³). Where organisational ethics guidelines are in place, the Applicant is expected to adhere to their ethics committee's guidelines.

6.17 Open research policy

MET ÉIREANN and the Department of Housing, Local Government and Heritage support the National Open Research Forum policies. Applicants are expected to follow the National Framework on the Transition to an Open Research Environment, including open access to publications and data.

6.18 Non compliance

Where proposals or awards are found to be non-compliant as per these Terms and Conditions or in breach of Contract, Projects will be deemed ineligible (at initial review stage) or funding may be withdrawn.

6.19 Confidentiality

All applications and subsequent correspondence with applicants will be treated as confidential and will follow GDPR regulations. By submitting your application you are agreeing to the Department of Housing, Local Government and Heritage's GDPR policy.⁴

³ https://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/ethics_en.htm

⁴ Available upon request

6.20 Acknowledgement

MET ÉIREANN, the Department of Housing, Local Government and Heritage and the Government of Ireland must be clearly acknowledged in all activities and outputs including publications, conference presentations, reports, events, etc. Logos will be made available and must be included in all dissemination and communication activities. Met Éireann funded researchers are required to present their projects at a Met Éireann event. All dissemination and communication activities must be recorded and included in the final report. Project outputs, dissemination activities and achievements may only be incorporated into non-Met Éireann reports if included as an ‘associated project’ and duly acknowledged. It must be made clear in all references to the Project’s activities that the work is funded by MET ÉIREANN. Both MET ÉIREANN and the Grantee will agree on a text at the start of the Project to be included in all disseminations and communications, subject to review.

6.21 Intellectual property and data management

Foreground Intellectual Property (IP) will remain with the Grantee, however, where research or product(s)/service(s) result from MET ÉIREANN Research Funding, the Grantee shall, upon request from MET ÉIREANN, provide MET ÉIREANN with a perpetual, royalty free, non-exclusive license to the outputs of the Project. Where data is collected as part of a MET ÉIREANN funded Project, a copy of the raw data must be provided to MET ÉIREANN and, where relevant, standard data formats should be used (e.g. INSPIRE). Specific terms and conditions relating to data use and data storage will be determined before the start of the Project on a case by case basis.

6.22 Programme management

Any queries regarding the application process or Project description should be submitted by email to researchfunding@met.ie.

APPENDIX 1 – Online Application Form

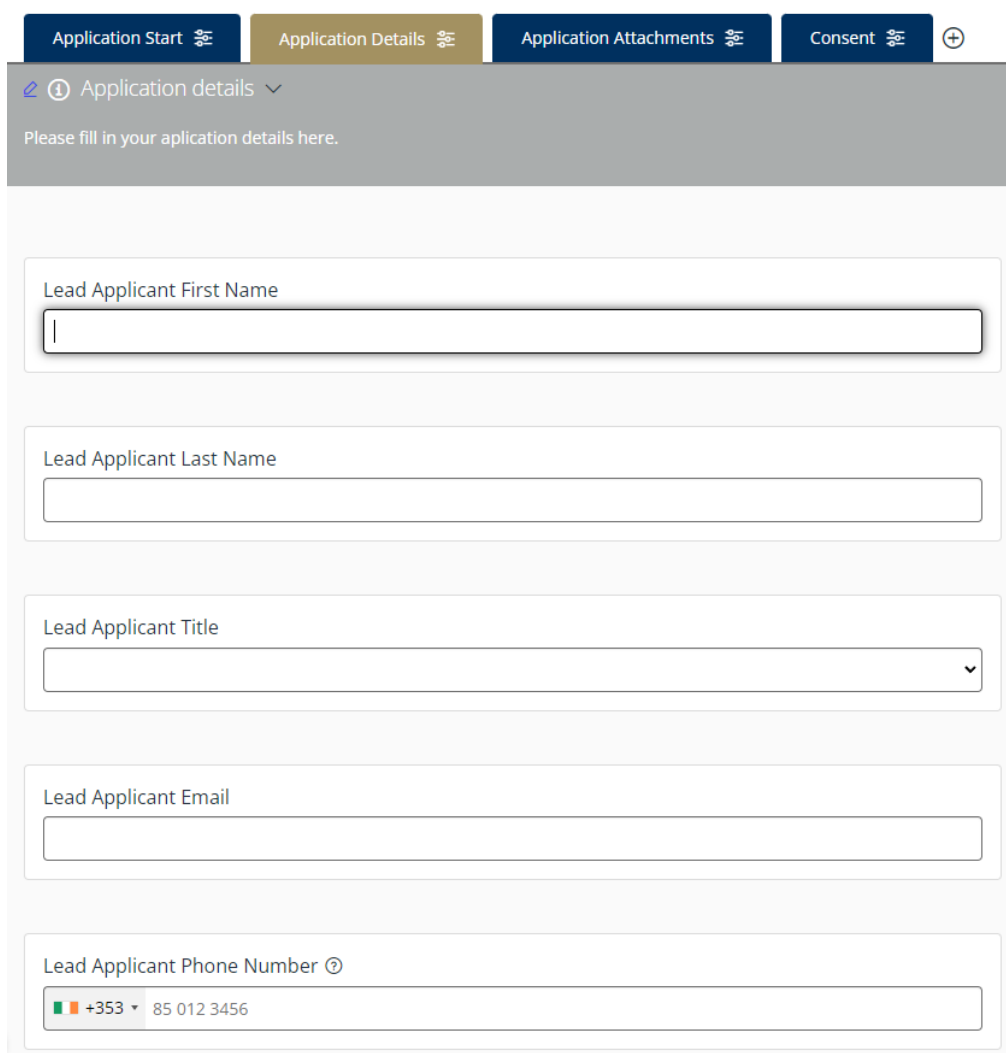
Go to: <https://meteireann.grantplatform.com/>

1. Application Start

- 1) Select the Call Topic
- 2) Enter your Proposal Acronym
- 3) Click "Save + next" (at the bottom of the page)

2. Application Details

Enter applicant details, abstract, keywords, impact, dissemination and communication plan, budget, budget justification.



The screenshot shows the 'Application Details' step of the online application form. At the top, there are four tabs: 'Application Start', 'Application Details' (which is highlighted in gold), 'Application Attachments', and 'Consent'. Below the tabs, there is a header bar with the text 'Application details' and a dropdown arrow. Below this, a grey box contains the instruction 'Please fill in your application details here.' The main form area contains several input fields: 'Lead Applicant First Name' (a text box), 'Lead Applicant Last Name' (a text box), 'Lead Applicant Title' (a dropdown menu), 'Lead Applicant Email' (a text box), and 'Lead Applicant Phone Number' (a text box with a country code dropdown set to '+353' and a phone number '85 012 3456').

3. Application Attachments

Upload Project description as described in section 6.13, letter(s) of support (if any – optional) and approval of institution letter in PDF format.

Application Start

Application Details

Application Attachments

Consent


🔗 ⓘ Attachments information ▼

Material may be supplied in PDF format only.

Maximum file size is 10MB per piece.

Please do not upload any further written material than requested as the reviewers will not consider these. The written compon


Project/Post description



Drag your file here
or

Select file


Letter(s) of Support (optional)



Drag your file here
or

Select file

Approval of Institution



4. Application Consent

Tick all consent boxes.

Application Start

Application Details

Application Attachments

Consent

Consent

For your application to be considered, please tick all the boxes below.

☐

I declare that the information provided is accurate and correct. I agree that MET ÉIREANN's Research Funding Office may make any enquires it considers necessary to verify the information provided herein. I have read, and agree to, MET ÉIREANN's Terms and Conditions for this call.


☐

Submission of an application represents an agreement by the applicant to obtain the relevant approval for any research which requires ethical and/or regulatory approval prior to the commencement of the research.

Save + next

Cancel

Buttons are deactivated in configuration mode.



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5. Submit Application

Any queries regarding the application process or Project description should be submitted by email to researchfunding@met.ie.

APPENDIX 2 - Frequently Asked Questions

1. Are salaries eligible costs?

Personnel costs for the researchers carrying out the research are eligible. The total cost should include all pensions and PRSI contributions but not indirect costs (these are listed separately in the budget). All salary costs should be in-line with IUA salary scales (<https://www.iua.ie/for-researchers/researcher-salary-scales-career-framework/>). A contribution to stipends and fees for students is allowable but must be in line with all Host Organisation HR practices.

2. Are overheads/indirect costs an eligible cost?

Yes, up to a maximum of 30% of total direct costs

3. Can researchers outside the Republic of Ireland (RoI) be funded?

Researchers who currently reside outside the RoI are eligible to apply but must be living in the RoI for the duration of the Project and physically based at the Host organisation/MET ÉIREANN (excluding short term visits to other institutes).

4. Can researchers outside Ireland be collaborators/partners?

Yes, there is no limit to the number or type of collaborator but they cannot receive funding.

5. Is the lead applicant interviewed by MET ÉIREANN's reviewers?

No, the Applicant is expected to provide evidence (e.g. in their CV) of their suitability to deliver this proposed Project.

6. Can the award be moved if the Applicant changes Institution?

Yes, but only with the agreement of both Host organisations and MET ÉIREANN. The new Host organisation must also fulfil the criteria as per the Terms and Conditions.

7. Will my Project be assessed more favourably if it has external co-funding?

No. Assessors will be asked to consider the overall Project proposed and whether resources are appropriate.

8. Is VAT an allowable cost in the budget for items such as consumables?

Yes.

9. Can underspend from an individual year be carried forward?

Part of the budget for an individual year can be carried if justified. MET ÉIREANN must be informed of any planned changes to the budget.

10. Is a computer considered durable equipment (and therefore not an eligible cost)?

If the Host Organisation considers computers a consumable or assigns a lifespan of less than one year, then it is an eligible cost.



APPENDIX 3 – MET ÉIREANN's Strategic Plan 2017 - 2027

Please read:

https://www.met.ie/cms/assets/uploads/2017/08/Met_Eireann_Strategy_2017-2027.pdf.

