

COUNTRY: Malaysia
Funding Organisation: Universiti Malaya (UM)

**2023 JOINT CALL FOR PROPOSALS OF SCIENCE,
TECHNOLOGY AND INNOVATION IN THE THEMATIC AREAS
OF
CIRCULAR ECONOMY
AND
CLEAN, ACCESSIBLE AND SECURE ENERGY SUPPLY**

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Introduction

All applicants from the Universiti Malaya are required to read the Universiti Malaya call text carefully.

All Universiti Malaya applications must be vetted and endorsed by the Universiti before submission. In addition, all Universiti Malaya applicants are strongly recommended to read the call text posted on the UM Research website (www.umresearch.um.edu.my) with comprehensive information, including submission methods.

Type of funded projects:

1. Southeast Asia - Europe Joint Call Project consortia must comprise of at least 3 partners from 3 different countries fulfilling the 2+1 rule:

Either 2 partners from 2 different Southeast Asian countries and 1 European partner or 2 partners from 2 different European countries and 1 Southeast Asian partner.

2. At least 1 partner from each region must be eligible for JFS funding. Further, the coordinator must be selected from among the partners eligible for funding. The required third partner can be funded by a funding organization from a country participating in the JFS or bring his own funding.
3. The proposals have to cover the thematic areas of “Sustainable Food Production” or “Climate Change: Resilience and Adaptation” to enhance bi-regional cooperation and develop new partnerships as well as strengthen existing ones.

Important note:

Universiti Malaya (UM) can fund projects for UM researchers only. For UM researchers submitting proposals for UM funds, please read the Universiti Malaya National Regulations carefully.

Thematic Area

1. The Universiti Malaya call is intended to support the following areas of research:

- a) Circular Economy

Circular economy approaches in science, technology and innovation (STI) have the potential to transform and rebuild European and Southeast Asian countries while at the same time maintaining and benefitting from the advantages of the existing biological and cultural diversity in both regions. With limited resources available and a continuously growing population on earth, a shift from linear to circular economy is inevitable and key for approaching the Sustainable Development Goals (SDG), such as the sustainable use of resources and responsible production and consumption.

The objective of the 2023 JFS Call for Proposals is to support STI projects towards sustainable-by-design approaches increasing the resource efficiency and considering secondary and renewable raw materials as the resources of the future and thereby restoring natural and biological resources, and minimizing waste. Special relevance for the two regions of Southeast Asia and Europe have been identified in (but are not limited to) the field of the bio-circular-green economy; digital applications to support circularity; the recovery of critical raw materials, green hydrogen or methane from waste; and enhanced circularity of shipbuilding through recycling, reuse and repair. With the climate crisis being one of the most relevant global concerns nowadays, technologies towards net zero carbon emissions (carbon capture technologies and the utilisation of greenhouse gases such as CH₄ or CO₂ to produce synthetic fuels or fine chemicals) and the integration of agriculture (water-related projects shall not be funded, e.g. irrigation) and food security into the circular economy are also important aspects.

- b) Clean, Accessible and Secure Energy Supply

In the pursuit of a sustainable future, a spectrum of cutting-edge technologies converges to establish a clean, accessible, and secure energy supply. Technologies producing renewable energy such as photovoltaic cells and wind energy systems (surface-based or airborne) are crucial to reduce the reliance on fossil fuels. Other renewable energy approaches capture and convert solar heat into usable energy by high-efficiency condensed thermal solar energy systems, and innovative geothermal systems tap into Earth's heat reservoirs for consistent, green power. In terms of clean energy hydrogen technologies play an important role as an energy carrier, fuel, and chemical precursor. New-generation small modular reactor technologies present scalable and safe energy solutions. Integrated biorefineries harmonize renewable resources and industrial processes, yielding biofuels and chemicals. Autonomous energy management systems optimize energy use by intelligently coordinating different systems. Industries like steel, aluminium, cement, and power embrace green hydrogen, revolutionizing emission-heavy sectors. Concurrently, renewable energy integration into high heat treatments and combustion processes reshapes industries' energy reliance. Collectively, these innovations herald a paradigm shift toward sustainability, ensuring a cleaner, accessible, and secure energy future, pivotal in combating climate change and forging a brighter, resilient tomorrow.

The JFS wants to **support** integrated research approaches and specifically **encourages** the submission of proposals by **interdisciplinary** consortia including expertise from **humanities and social sciences**.

Eligibility For UM Applicants

1. Eligible UM Lead Applicant/ UM Project Coordinator and organisation
 - (i) The UM Lead Applicant/ UM Project Coordinator must be an academic, have a Ph.D. degree and hold a permanent or fixed-term contract in the Universiti Malaya.
 - (ii) The UM Lead Applicant/ UM Project Coordinator directly responsible for the preparation and management of the project and grant together with the co-applicant(s), not acting as an intermediary. Lead applicants/ Project Coordinators are encouraged to include early career academic as a member in their proposals.
2. Responsibility of UM Lead Applicant/ UM Project Coordinator
 - (i) Only **one proposal per project should be submitted using PT-Outline**. The UM Lead Applicant/ UM Project Coordinator shall submit the project proposal.
 - (ii) The UM Lead Applicant/ UM Project Coordinator is responsible for submitting the proposal on behalf of his / her project team.
 - (iii) The responsibilities of the UM Lead Applicant/ UM Project Coordinator are to keep the other project partners updated on the submission process, to ensure the internal management and coordination of the project consortium, and to constitute the main contact to the Joint Call Secretariat.
 - (iv) The UM Lead Applicant/ UM Project Coordinator of a project receiving funding through the JFS is also the first contact point for the JFS coordinators whenever information related to the projects is required and for monitoring purposes.
3. **Co-applicants** (if any) can be researchers from the other Malaysian Universities, but funding will only be granted to members of the Universiti Malaya.
4. Funding
The maximum amount per project is RM100,000.00 for a duration of maximum of 36 months.

Application Process and Submission

1. The project should start earliest in **November 2024**.
2. **Deadline:** 15 April 2024 12:00 (noon) CEST/ 05:00 pm Bangkok time

Any proposal submitted after this deadline cannot be accepted and will not be considered for evaluation.

3. Proposals for STI projects have to be submitted electronically using PT-Outline Web Tool, accessible through <https://ptoutline.eu/app/JFS23STI>.

The PT-Outline electronic form consists of four pages (General information, Project coordinator, Project partners, and Project description) that need to be filled in online. In addition, a word template has to be downloaded from the project description page of PT-Outline, filled in with the requested information, converted to PDF format, and then uploaded again.

4. After the successful submission of the proposal, each principal coordinator will receive an automatic **confirmation e-mail**. This e-mail can be used **as proof that the proposal was submitted on time and correctly**. However, in case the lead/ coordinator is not sure whether the proposal was submitted correctly, he or she should contact the call secretariat immediately and/or resend the proposal via e-mail to the Joint Call Secretariat **within the deadline**.

Please note:

All Universiti Malaya applicants are required to **submit a copy of the application form and all related supporting documents, in addition to the JFS application via e-mail to:**

- (i) The Research Grant Management Division (BPGP), Institute of Research Management & Services Universiti Malaya at ppgp@um.edu.my, **AND**
- (ii) cc to Madam Haryana at hrozana@um.edu.my, **AND**

All e-mails must carry the following subject:

SUBMISSION OF 2023 JFS STI Call

Funding modalities

For research projects funded by the Universiti Malaya, the funding is limited to:

1. Personnel costs
Stipend for one graduate student involves directly in the project for up to 36 months.
2. Mobility/travel
Only fieldwork expenses are covered, which include only the:
 - (i) local transportation and
 - (ii) accommodation (if required)
3. Equipment
The applicant's chosen research environment should have the necessary equipment to complete the proposed research project. Only necessary small equipment, maintenance, and repair are covered.
4. Research Materials and Consumables

Only materials and consumables that are directly related used to carry out the project will be covered.

5. Workshops / meetings / conference
Only workshops/ meetings/ conferences registration fee is covered and not more than RM10,000.00 throughout the project period.
6. Publication fees
Applicants can include the publication fees (page charges) in the budget following the rate below:
 - (i) Quartile 1: Up to RM6,000.00
 - (ii) Quartile 2: Up to RM4,000.00

The proposal

All proposals must be written in **English only**. The **Project description** document should contain the following information (max. number of 6,000 words excl. all Annexes):-

1. Basic project data

- 1.1 Project title
- 1.2 Project Acronym
- 1.3 Name and institution of the Project Coordinator
- 1.4 Names and institutions of other project partners

2. Project description

- 2.1 Describe why your proposal suits the respective call thematic area.
- 2.2 Describe as precisely as possible the technological objectives of the project.
- 2.3 Explain the novel character of the activities proposed. Show how the objectives of the project aim at significant advances in the state-of-the-art through extending the current technologies and/or filling the gaps identified.
- 2.4 Lay down the added value of transnational cooperation, which is implemented in your consortium.
- 2.5 Describe what makes up the excellence of your consortium. Describe how the teams complement each other and the added value resulting from the multilateral cooperation. Mention where there is a potential for synergy effects between different tasks of the project and how this is going to be exploited.
- 2.6 Describe the multidisciplinary/interdisciplinarity of your proposal.
- 2.7 Lay down if (and how) the research project matches the national priorities of the partners involved.
- 2.8 Self-assessment of targeted Technology Readiness Level (TRL) and explanation

3. Work plan

- 3.1 Describe the research project with respect to the methodology; justify and highlight the particular advantages of the methodology chosen to reach the objectives.

- 3.2 Describe the type of activities that are implemented in your project.
- 3.3 Describe the distribution of tasks. What is the involvement of each partner in relation to the proposed activities? How are the resources distributed among the partners? (time plan).
- 3.4 Describe the management structure of your project.

4. Potential impact and exploitation of results

- 4.1 Describe the scientific and/or commercial expected impact.
- 4.2 Describe whether the project has any beneficial impact on society, in particular regarding societal challenges.
- 4.3 Describe the measures for the dissemination and/.or exploitation of trans-national projects results and management of the intellectual property. What are the next steps?
- 4.4 Prospects for establishing efficient and sustainable partnership.

5. Financial Plan

6. Annexes

- 6.1 If applicable: the Letter of Commitment securing willingness to collaborate by partners from countries that are not on the list of funding for the 2023 JFS STI Call.
- 6.2 CVs and lists of principal publications of participating researchers (3 pages max. per researcher).
7. Aims and methods of the proposed collaborative project should clearly demonstrate the excellence and innovativeness of the project, product, or service, including the added value for Southeast Asian - European research and innovation cooperation, and describe expected outcomes/marketability. In addition, a financial plan and a time and work plan, including milestones, have to be included. All budgets will be submitted in Euros. The applicants will have to identify the TRL targeted at the end of the project and the TRL of the work that the project proposal is based on. This self-assessment/estimation will have to be justified in brief paragraphs.
8. The applicant is responsible for determining whether the execution of the proposed research requires an ethical statement or license and complies with national and international sanction rules and legislation. The applicant must ensure that the ethical statement or license is acquired in a timely manner from the relevant ethics review committee.
9. All information inserted into the PT-Outline web tool is saved after having clicked on the "SAVE" button at the bottom of each page.
10. During the proposal submission phase, it is allowed to replace already registered and eligible project partners or to add project partners to the consortium. Please note that after the binding submission of a proposal (through clicking on the 'SUBMIT NOW' button in PT-Outline), **no further changes can be made to your proposal.**

Evaluation process

The evaluation process includes the following steps.

1. Eligibility check

The Joint Call Secretariat (JCS) will check all proposals to ensure that they meet the following **general eligibility criteria** of the Call:

- Date of submission
- Composition of consortium (2+1 rule)
- Duration of project
- Inclusion of all necessary information in English
- Appropriate length of the proposal
- Eligibility of the Project Coordinator
- Eligibility of the other project partners (in case the Project Coordinator or a project partner is rejected in the eligibility check, the whole proposal might be rejected)
- Eligible thematic focus
- Reflection of national priorities (if applicable)
- Eligibility of required funding
- Complete appendixes required

The JCS will forward the proposals to the National Contact Points (NCPs), who will perform a check for compliance of the respective country / national regulation.

Please note if the proposal does not meet the formal criteria / the national regulation/eligibility criteria and requirements, **the proposal may be declined without further review.**

2. Peer review

Independent scientific experts in the relevant thematic research fields will carry out the anonymous peer review of the eligible project proposals according to evaluation criteria set up by the funding parties. Each proposal will be evaluated by at least two online evaluators (at least one Southeast Asian and one European peer reviewer). The peer reviewers will be nominated by the Southeast Asian and European National Contact Points in cooperation with the funding parties.

The evaluation is done using the following evaluation criteria:

Scientific/technological excellence and innovativeness of the project idea (scoring from 0 to 10)

- Sound concept, quality of objectives
- Innovativeness of the project idea: Capacity of the project to contribute to developing new technology, service, or product.
- Quality and effectiveness of the methodology and associated work plan
- Good balance between the technology/knowledge available at each participating team
- Complementarity of qualifications and relevant experience of the coordinator and the individual participants/participating teams

Potential impact and expected outcomes of the project (scoring from 0 to 10)

- Social and/or market-related impact
- Potential to meet the market, economic and societal needs, and significant exploitation potential
- Prospects for establishing efficient and sustainable partnership within the network, including transfer of know-how and experience
- Appropriateness of measures for the dissemination and/or exploitation of trans-national project results and management of intellectual property

Management, Transnationality, and Cooperation (scoring from 0 to 10)

- Quality and effectiveness of the management structure and distribution of tasks
- The added value of transnational cooperation
- Appropriate allocation and justification of the resources to be committed (budget, staff, equipment).

The total score of the proposal is the weighted average of the individual scores given to each criterion, rated from 0 to 10. The table below summarizes the scores and weight coefficients per criterion:

3. Criteria

No	description	Weight	Score
1	Scientific / Technological excellence and innovativeness of the project idea or product / service to be developed	0-10	40%
2	Potential impact and expected outcomes of the project / marketability	0-10	40%
3	Management, Transnationality and Cooperation	0-10	20%

After the peer reviewers submitted their results, applicants will be contacted and informed about the online evaluation results. At this point, the applicants get the opportunity to **defend** their application on specific points and give a written statement (max. 2 A4 pages).

Once the peer-review process is finalized, the JCS will send the proposals and pooled reviews to the Scientific Council (SC) members. The SC meeting is in charge of the final ranking based on the peer review results. The SC members consist of internationally recognized experts offering a high degree of technical, scientific, and innovation expertise in the respective research field, as well as broad experiences in international collaboration.

The final ranking list as well as the written remarks by the SC will be forwarded to the Programme Steering Committee (PSC) for the funding decision meeting.

Funding Decision

Based on the ranking list established and the written minutes of the SC meeting, as well as the available funding, the PSC will take a final decision. The JCS will communicate to all project coordinators about the final decisions of their proposal together with the main comments from the SC about the proposal. In the case of a positive funding decision, the national funding agencies will then get in touch with the individual project partners to initiate the process of drafting the contract. The start of funded projects is expected to begin no later than November 2024.

Monitoring of Implementation of JFS Call Projects

The projects funded under the JFS will be asked to submit annual monitoring reports. Each project participant should also submit financial and scientific reports to their national/regional funding organisations according to his/her national regulations.

In the case a partner decided to withdraw from a project before the completion date due to the reasons such as discrepancies within the consortia, funding problems, changes in the strategy of companies, technical or sudden market problems; the NCPs have to check whether the basic JFS eligibility criteria are still met and if the excellence of the project is still maintained. If not, the involved funding agencies may decide jointly to cease the funding for this specific project.

In addition, the following regulations will apply for all research projects that are funded through the JFS Call:

- Publications or other forms of output resulting from the research for which funding was awarded should be made available to the JFS Call Secretariat (publication of the results in open access journals is strongly encouraged).
- In any publication of results of the research for which JFS Call funding was awarded, mention must be made of the support received.

Contact

For more information, please contact:

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