

# 2023 JOINT CALL FOR PROPOSALS OF SCIENCE, TECHNOLOGY AND INNOVATION IN THE THEMATIC AREAS OF

# CIRCULAR ECONOMY AND CLEAN, ACCESSIBLE AND SECURE ENERGY SUPPLY

#### Type of funded projects:

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. 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 organisation from a country participating in the JFS or bring his own funding. The proposals have to cover the thematic areas of **"Circular Economy**" or **"Clean, Accessible and Secure Energy Supply**" to enhance bi-regional cooperation and develop new partnerships as well as strengthen existing ones. Please read the National Regulations from the funding Regulations may include additional requirements, e.g. certain Technology Readiness Levels.

Deadline: 15 April 2024 12:00 (noon) CEST/ 05:00pm Bangkok/Jakarta time

# THEMATIC AREAS

#### 1) 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.

# 2) 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**.

#### **PARTICIPATING COUNTRIES AND FUNDING AGENCIES / MINISTRIES**

#### (1= Circular Economy; 2= Clean, Accessible and Secure Energy Supply)

- **Austria** Austrian Federal Ministry of Education, Science and Research (BMBWF) **1,2**
- Belgium National Fund for Scientific Research (F.R.S.-FNRS) 1,2
- Brunei Darussalam University of Brunei Darussalam (UBD) 1,2
- Bulgaria Bulgarian National Science Fund (BNSF) 1,2
- Cambodia Ministry of Education, Youth and Sport (MoEYS) 1,2
- Czech Republic Czech Academy of Sciences (CAS) 1,2

- Germany Federal Ministry of Education and Research (BMBF) 1
- **Indonesia** Ministry of Education, Culture, Research & Technology (DIKBUDRISTEK) and National Research & Innovation Agency (BRIN) **1,2**
- Malaysia Universiti Malaya (UM) 1,2
- Malaysia Universiti Putra Malaysia (UPM) 1
- Myanmar Ministry of Science and Technology (MoST) 1
- **Spain** Centre for the Development of Industrial Technology (CDTI-E.P.E.) **1,2**
- Switzerland Swiss National Science Foundation (SNSF) 1,2
- Thailand National Research Council of Thailand (NRCT) 1
- **Thailand** Program Management Unit for Human Resources & Institutional Development, Research and Innovation (PMU-B) **1,2**
- **The Philippines** Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD) **1,2**
- **Türkiye** Scientific and Technological Research Council of Türkiye (TÜBITAK) **1,2**

# **PLEASE NOTE:**

Some funders may only participate in one of the thematic areas. This is indicated with **1**= **Circular Economy; 2**= **Clean, Accessible and Secure Energy Supply** after the name of each funding agency in the list above.

#### Scope of the projects:

Funding will be provided for the **duration of a maximum of three years (36 months)**. They should start earliest in **November 2024**.

Within the framework of the Joint Call, funding can in general be applied for:

- Personnel costs
- Equipment and consumables (project-related miscellaneous expenses and project-related larger equipment)
- Mobility costs (exchange research visits between Europe and Southeast Asia. Travel costs, living expenses and visa costs are eligible for funding.
- Other costs (Costs which cannot be classified under the previous cost items but are required for the project implementation, such as costs related to dissemination, intellectual property, demonstration, market search, management, organisational and subcontracting costs)

The eligibility of cost items and their calculation is according to the respective National Funding Regulations from the participating organisations which are available in the JFS website: <u>https://www.sea-europe-jfs.eu/calls</u>

The upper funding limit usually can also be found in the respective national regulations.

#### Who can apply?

Proposals may be submitted by public legal RTD (Research and Technology Development) entities, higher education institutions, non-university research

establishments, companies (all depending on National Funding Regulations). Eligibly criteria can be found in the respective National Funding Regulations.

Institutions not explicitly mentioned as recipients might be included in consortia if they provide their own funding (non-eligible organisations might join at their own costs). A Letter of Commitment has to be submitted in these cases by this partner confirming his contribution. Other entities may apply if the respective National Funding Regulations allow it.

The JFS welcomes the submission of project proposals by interdisciplinary project consortia. The JFS also welcomes the submission of project proposals by project consortia that involve partners from the private sector.

We strongly suggest that applicants discuss their intentions and confirm eligibility with their respective National Focal Point (NFP) before submitting a proposal. The details of the NFPs can be found at the end of this side.

#### **APPLICATION PROCESS**

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

During the submission phase, the web tool will be open from the publishing date of the Call on **01<sup>st</sup> of December 2023 until 15<sup>th</sup> of April 2024, 12:00pm CEST (noon) / 05:00pm Bangkok/Jakarta time.** 

#### Any proposal that is submitted after this deadline cannot be accepted by the secretariat and therefore will not be considered for evaluation.

After 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**. In case the 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: Some funding organisations require that applicants from their respective countries **submit specific complementary documents at the national level**, in addition to the JFS application. These additional requirements will be made clear in the National Funding Regulations of the concerned countries / funding organisation.

Each project consortium has to choose a **Project Coordinator** from among all partners of the respective project eligible for funding (partners participating on their own budget may not be coordinators). Only **one proposal per project should be submitted using PT-Outline**. The project proposal shall be submitted **by the Project Coordinator**. The Project Coordinator is responsible for submitting the proposal on behalf of his / her project consortium. The

responsibilities of the 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. The 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 are required and for monitoring purposes. All proposals must be written in **English only**.

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.

Please watch our video tutorial about how to apply in the Media section of this website or on YouTube: <u>https://www.youtube.com/watch?v=JLCYFcKpARA</u>

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 multidisciplinarity / interdisiplinarity of your proposal.

2.7 Lay down if (and how) the research project matches 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 the methodology chosen to reach the objectives. Highlight the particular advantages of the methodology chosen.

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 transnational projects results, and management of 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 which 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).

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 which is 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.

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.

All information inserted into the PT-Outline web tool is saved after having clicked on the "SAVE" button at the bottom of each page.

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.

#### **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 Focal Points (NFPs) 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.** 

#### **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 Focal Points in cooperation with the funding parties.

The evaluation is done using the following evaluation criteria:

- 1. 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 the development of a 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
- 2. Potential impact and expected outcomes of the project (scoring from 0 to 10)
  - Social and / or market related impact
  - Potential to meet market, economical 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

# **3. Management, Transnationality and Cooperation (scoring from 0 to 10)**

- Quality and effectiveness of the management structure and distribution of tasks
- 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:

	Criteria	Score	Weight
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%
	TOTAL	0-10	100%

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 to 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 earliest 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 NFPs 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 form 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 INFORMATION**

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