Indo-Swedish Joint Call for Proposals within Circular Economy



A collaboration between:



















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Call Text – Indo-Swedish Joint Call on Circular Economy

Description of the call

Introduction

The transition to a circular economy is one of the important building blocks towards sustainability, since reuse, remanufacturing and recycling contribute to the long-term use of materials and other resources, and thereby limiting the excess extraction of virgin resources. An extended material lifespan, helps to reduce waste and its negative effects, and to reduce unwarranted extractions of natural resources. This applies to both bio-based and non-bio-based resources.

Circular economy relates to several of the UN Sustainable Development Goals, from the more obvious goal 7 Affordable and clean energy, goal 9 Industry, innovation and infrastructure, and goal 12 Responsible consumption and production, to goal 1 No poverty and goal 6 Clean water and sanitation, and many more. Thereby, a shift to a circular economy requires innovations in both technical and social fields. Sharing solutions, renting and other business models increasing the use of resources are often included in the concept.

The shift from linear to circular economy, and from the concept of value chains to value cycles, is a complex process for the society. The shift requires changes in almost all sectors of the society. Various aspects need to be addressed, such as policy development, health considerations, working life environments, individual and societal behaviour, social aspects, etcetera. Although many technical solutions and circular initiatives already exist, there are still large knowledge gaps, spanning all the way from basic research to initiatives close to market, such as innovation and other implementation in society. These must be addressed, to enable the shift of society to a sustainable circular economy, and make it take off at large scale. At various stages of the development of a concept, technical and/or societal, demonstration activities can contribute to the validation and testing in a realistic environment.

Therefore, research funders in India and Sweden now open a joint call on Circular Economy. The call is a collaboration between:

- the Department of Science and Technology (DST), Government of India
- the Department of Biotechnology (DBT), Government of India
- the Ministry of Earth Sciences (MoES), Government of India
- Biotechnology Industry Research Assistance Council (BIRAC)
- Formas, the Swedish government research council for sustainable development
- Vinnova, Sweden's Innovation Agency
- Forte, the Swedish Research Council for Health, Working Life and Welfare
- the Swedish Research Council
- the Swedish Energy Agency.

Purpose and focus

The purpose of the call is to support research and innovation projects that are highly relevant for, and support a, transition towards a circular economy. Proposed projects must describe clearly how they contribute to increased sustainability. Demonstration activities, including feasibility studies, may be included. The call seeks to fund applications for conducting research with a high societal relevance, both basic and applied, and innovation promoting the transition, nationally in India and Sweden, as well as internationally.

The proposals must address their topics with a broad system perspective and preferably, where relevant, with a cross-sectorial approach, working with the topic from multiple perspectives. With a clear system approach. The application should also specify the expected long- or short-term impact of the project. The projects must generate impact or new, generic, knowledge in their respective fields and contribute significantly to the shift towards a sustainable society.

The call welcomes proposals within a broad range of areas. Topics relevant for the call include, but are not limited to:

- 1. Challenges related to value chains, for example material flows such as electronic, textile, energy, recycling processes as well as mining wastes
- 2. Comparative studies and projects analysing the short- and long-term effects of circular initiatives
- 3. Life sciences and health
- 4. Marine litter
- 5. Societal challenges for transition to a circular economy, for example policies, government, etcetera, as well as aspects relevant for the citizens
- 6. Business models for a circular economy
- 7. Welfare, including work-life
- 8. Circular economy and the citizens, for example behaviour, nudging, cultural and social values.

The Swedish research funding agencies, through Formas, can fund all the subthemes above. **DST** can fund the first two subthemes. **DST** can fund project activities related to subtopics five to eight as parts of technical projects. DBT can fund projects within life sciences and health, as included in the third subtopic above. BIRAC funds the industry-components of projects (academia with industry / only industry) within the same thematic research and development areas as DBT. MoES can fund projects within marine litter, as mentioned in the fourth subtheme above.

It is preferable if projects address their research questions from more than one of the sub-themes mentioned above and involve stakeholder representatives relevant for the topic of the project.

Research and innovation on the implementation of circular economy initiatives include drivers and barriers at different levels for implementing circularity, establishing trust between various actors in the system to enable sharing and reuse of products and materials, and norms surrounding used products. Research and innovation could also more broadly address the implementation of research results in various settings or organisations or focus on the development or improvement of services utilising research findings. In whatever form implementation efforts are addressed, it is important to include and consider the needs, values and priorities of social actors and end-users in the research and innovation process to achieve lasting results.

Projects could be based on one or more circular solutions or initiatives; user involvement and codesign is particularly encouraged.

Instructions to applicants

Please note, different conditions for Indian and Swedish applicants apply. Please read this section carefully. More detailed information on how to apply is found on the respective websites of the involved research funding agencies.

Indian applicants, please apply from DST, MoES or DBT, depending on thematic focus of project (please see guide above).

- **DST**: for subtheme one and two above (components within the fifth to eight subthemes are allowed within technical projects, please see page 4), please apply and find more information through this link https://dst.gov.in/call-for-proposals. NO HARD COPY of the project proposal should be submitted.
- **DBT** and **BIRAC**: for the subtheme Life sciences and health, please apply through this link https://dbtepromis.nic.in/Login.aspx. Please check Modalities of participation and funding through DBT (**Annexure I**) and through of BIRAC (**Annexure II**).
- **MoES**: for subtheme Marine litter, please apply by submitting the application by e-mail (contact details may be found on the last page of these call guidelines). Information about the call is available at MoES's webpage in the News / announcements' section. Please check Modalities of participation and funding through MoES (**Annexure III**).

Swedish applicants, please apply from Formas' webpage: www.formas.se/en/indoswedish, where more information on this funding opportunity may also be found.

Who can apply?

Organisations in Sweden and India wishing to collaborate. Participation from different types of actors is encouraged, such as registered companies (including LLP), universities, university hospitals, research institutes or other relevant actors.

On the Swedish side, all the above-mentioned actors are allowed to apply, and all apply through Formas. On the Indian side, **DST can only fund academic participants.** MoES can fund all of the above-mentioned actors, as well as Non-Governmental Organisations. DBT can fund academic participants and BIRAC can fund industry participants.

For details, please reach out to the involved research funding agencies. Contact details are found at the end of the call text.

Project team

Project teams must consist of at least three partners, including at least one from each country. On the Indian side, a maximum of three participating organisations is allowed. On the Swedish side, a maximum of eight participating organisations is allowed. More actors may be involved as consultants in the project if it is found to be relevant for the project goals.

¹ Eligibility criteria in India – MoES

Government of India supported or recognised (Public or Private) academia, research organisations and urban or other local bodies. Public and/or private universities and research organisations must have a well-established research support system, for basic or applied research. Submission of proof of establishment under Indian statue; recognition documents and registration at Government of India's Public Finance Management System (PFMS) - https://pfms.nic.in shall be obligatory. Government of India recognised not-for-profit, NGO(s)/VO(s)/Trust(s)/Research foundations, having experience of at least 3 years in scientific research, teaching, training and extension activities; and must follow research as one of the mandates. Proof of registration at 'NGO DARPAN' of NITI Aayog (http://ngodarpan.gov.in/), Certificate of registration under Society Registration Act, Firm's Memorandum of Association, Registration at Government of India's Public Finance Management System (PFMS) (https://pfms.nic.in), Valid SIRO certificate for firm's in-house R&D recognition and audited account statements for the past three years shall be obligatory.

A project coordinator must be appointed from each nation per project. The coordinator is responsible for submitting the application, project coordination and the contact point for the project. The project coordinator may be any eligible type of actor, please see "Who can apply?" above, except for applicants to DST. Projects applying for funding from the DST for the Indian part of the project, the Indian coordinator must represent an academic institution. Proposals applying for funding from the DBT for the Indian part of the proposal, the participants please check the Annexure I enclosed with this Joint Call for eligibility.

How to apply

The Swedish project coordinators submit their project applications in the online system Prisma. Formas is the appointed administrative agency for this call for all the involved Swedish research funding agencies. Thus, all Swedish applicants apply from Formas and all Swedish research funding agencies channel their funding to the Swedish side of the projects through Formas. All necessary information on how to apply is available on Formas' webpage. Swedish applicants, please note, it is very important to read the instructions as soon as possible on the call's website, especially the parts on registering accounts in Prisma.

Swedish applicants apply through the online system Prisma: Start page Prisma (research.se)²

Indian applicants apply through DST, MoES or DBT, depending on thematic focus of project.

- Applications within the first and second sub-themes (components within the fifth to eight subthemes are allowed within technical projects, please see page 4), apply from DST:
 https://dst.gov.in/call-for-proposals. The Project Proposal could be submitted in the enclosed format through ONLINE MODE ONLY (www.onlinedst.gov.in). NO HARD COPY of the project proposal should be submitted.
- Applications within third subtheme, Life sciences and health, shall be submitted at DBT's website (DBT transfer applications from Indian industries to BIRAC): https://dbtepromis.nic.in/Login.aspx.

Steps for submission:

- o Please login to eProMIS account (https://dbtepromis.nic.in/Login.aspx)
- o Go to International Cooperation-Bilateral Programs area
- o Open Call link for Indo-Sweden Joint Call on Circular Economy
- o Submit proposal.
- Applications within marine litter, subtheme four, submit application by e-mail, please find contact details at the end of the document.

The project teams must write a project description using the predefined template and submit as an appendix in respective application. Please note, the project description must be identical in the applications on the Indian and Swedish side. The project description template may be found in **Annexure IV**. Failure to comply with this will affect the evaluation of the proposal.

Eligible costs

For full details, please reach out to the involved funding agencies for more information on each research funding agency's rules on eligible costs.

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² https://prisma.research.se/

In sum, on the Swedish side, both direct and indirect costs can be funded through Formas. Direct costs include costs for salaries, equipment, and travel. Outsourcing can be funded if it is justifiable and in line with project objectives. Indirect costs are costs that are shared with others in your organisation, such as for administration, IT and renting of premises. Indirect costs are sometimes called overhead. For Swedish applicants, guiding documents are available on Formas' webpage, including information on state aid regulations.

On the Indian side, DST fund consumables, contingency, travel expenses, over-head, and manpower. Outsourcing can be funded if it is justifiable and in line with project objectives. DST does not fund major instrumental facilities, equipment, only minor equipment. MoES fund direct costs, including manpower (JRF, SRF, RA, TA etc.), consumables, travel costs (domestic and international), fieldwork, laboratory equipment, training, and awareness. DBT can fund equipment, manpower, consumables, contingencies, travel, overhead and outsourcing (please check **Annexure I** for more details). BIRAC can fund equipment, consumables, manpower, travel, contingency, and outsourcing (please check **Annexure II** for more details). MoES can also fund indirect costs, including overhead charges as per MoES norms (please check **Annexure III** and the News / announcements' section at MoES's webpage for more details).

Project duration and grant amount

Projects must be a minimum of one year and a maximum of 3 years (12 –36 months). Projects may start in December 2022 at the earliest and April 2023 at the latest. It is desirable that research and development efforts of the Swedish and Indian side are matching. However, it is not required that the Swedish and Indian budgets within a project are balanced.

On the Swedish side, the maximum grant amount is SEK 2 million per year, per project. Thus, total maximum grant is SEK 6 million per project. A total of SEK 69 million has been earmarked for the call for the Swedish side of the projects receiving funding.

On the Indian side, DST can support as per existing norms. MoES can support academic and industry components of a projects with a total of Rs. 1.5 Crores IN per project. MoES can fund up to two projects. DBT can support projects with a maximum project budget of 1.5 crore IN per project. BIRAC does not have a defined cap for the support to each project.

Language

The applications must be written in English as they will be reviewed by international experts.

Environmental considerations when planning your project

The funders are eager to fund projects that maximise the positive and minimise the negative impacts on the environment and climate. We therefore encourage applicants to design their projects so that collaboration takes place primarily through online meetings and that any necessary travel takes place in a climate-smart way. Project planning should include measures that minimise energy use and other resource consumption, emissions, and waste. However, this will not be part of an application's assessment at this time.

Equal opportunities and inclusion

The involved research funding agencies encourages the development towards a sustainable society. Crucial to such a development are equal opportunities and inclusion. Therefore, applicants are encouraged to think as much as possible about designing the project so that it can contribute knowledge that reflects and is relevant to different groups in society. Applicants are also encouraged to consider gender balance in the project team and include participants with different backgrounds and experiences.

Assessment of applications

The applications will be evaluated on the criteria below. The proposals must therefore clearly address each of them. The evaluation is performed based upon the information given in the applications. First, parallel national evaluation processes take place in accordance with the involved research funding agencies' standard procedures. Secondly, a bilateral evaluation process is carried out, where a joint evaluation meeting between the Swedish and Indian reviewers is the central part. The reviewers consist of experts relevant for the research and development area of each application.

Criteria Indo-Swedish joint call on circular economy

1. Potential and impact

- Alignment to the aim and topic of the call
- Relevance of the project (scientifically, technically, societally, etc.)
- Quality of the project (scientifically, technically, societally, etc.)
- Short- or long-term impact of project, nationally, regionally, or globally
- Communication and dissemination plan
- Activities to enhance implementation of project results
- Relevant stakeholders are actively involved

2. Feasibility

- The general design, including time-plan, of the project
- Suitability of method, work-plan, and budget
- The balance between the project's feasibility, risks, and its potential gains

3. Project consortium

- The competence of the project team
- Project coordination and how well the efforts of the partners complement each other in achieving the common goal
- The complementary efforts of the partners in achieving the common goal
- The appropriateness of multidisciplinary and interdisciplinary approaches
- Gender distribution, commitment, and influence of the project team (key people)

4. Added value of bilateral collaboration

- Advantages of partnering between Indian and Swedish experts in the project
- Potential to increase Sweden's and India's international competitiveness in the field

Intellectual property rights

By the time of application, consortium partners should agree on subjects such as Intellectual Property Rights (IPR) in a Consortium Agreement. Swedish applicants, please note this is a special requirement for this call. Swedish applicants should *not* submit their agreement to Formas. Applicants may request more time to finalise the Consortium Agreement, but it should be finalised no later than the Joint Review Meeting (please see timeline below). Swedish applicant may find a guide on how to write a data management plan on Formas' webpage.³ Indian applicants for the category "Life Sciences and Health" please check Annexure I of DBT for IPR and consortium agreement.

Confidentiality, general data protection regulation and privacy policy

According to Swedish law, the application and its appendices are considered as public documents after they are submitted to Formas. This means that anyone can request to read your application. Before we disclose any applications, we always conduct a confidentiality assessment. We hide sensitive information as legislated for in the Public Access and Secrecy Act (2009:400). As an applicant, you can mark the parts you believe should be treated as confidential, but it is Formas' assessment during the confidentiality review that determines what is disclosed.

The Swedish research funding agencies treat data submitted in the application in accordance with the General Data Protection Regulation (GDPR). More information may be found on Formas' privacy policy on Formas' webpage.⁴

Timeline

- 1. Opening of call 3rd of May
- 2. Closure of call 22nd of June
- 3. Eligibility check 1st of July
- 4. National project evaluation ready by 22nd of August
- 5. Indo-Swedish joint evaluation meeting with reviewers 8th and 9th of September
- 6. Due diligence of the only jointly recommended projects ready 8th of November
- 7. Formal decision and declaration of result 15th of November
- 8. Formal start of projects 1st of December and first payment December

Information sessions

Information session will be organised. During the session, you may get the information in these call guidelines explained and may pose questions to the involved research funding agencies.

18th of May at 9.00–10.00 CET / 12.30–13.30 IST Please click here to join the meeting⁵

2nd of June at 11.00–12.00 CET / 14.30–15.30 IST Please click here to join the meeting⁶.

³ Good to know before you apply - Formas (https://formas.se/en/start-page/applying-for-funding/how-it-works/good-to-know-before-you-apply.html).

⁴ https://www.formas.se/en/start-page/about-formas/how-formas-is-governed/governing-documents/privacy-policy.html

⁵ https://teams.microsoft.com/l/meetup-

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^{6 &}lt;a href="https://teams.microsoft.com/l/meetup-join/19%3ameeting_NDFjNjIxNjEtOTI4OS00OGIzLWE3MGEtZDA3NzNjMWIzZjRh%40thread.v2/0?context=%7b%22Tid%22%3a%224b552844-3bd0-4e19-bfd3-a566ea76a7b6%22%2c%22Oid%22%3a%2212a218f6-89e5-4998-b781-440aea3faeb2%22%7d

Contact details

DST

- Dr. Jyoti Sharma, Scientist F
 - o E-mail: sharma.jyoti@nic.in

MoES

- Dr. Vijav Kumar, Scientist G
 - o E-mail: vijay.kumar66@nic.in
- Dr. KR Mangalaa, Scientist C
 - o E-mail: mangalaa.kr@gov.in

DBT

- Dr. Vinita Chaudhary
 - o E-mail: vinita.chaudharv@nic.in

BIRAC

- Dr. Shilpi Gupta
 - o E-mail: sgupta.birac@nic.in
- Dr. Aparna Sharma
 - o E-mail: tech01.birac@nic.in

Formas

- Dr. Louise Staffas (for more specific questions regarding the call)
 - o E-mail: <u>louise.staffas@formas.se</u>
 - o Phone: +46 8 775 41 12
- Pernilla Hjert-Elgström (for administrative support and questions regarding Prisma)
 - o E- mail: pernilla.hjertelgstrom@formas.se
- Johan Hansson (for questions regarding state aid regulation)
 - o E-mail: johan.hansson@formas.se
 - o Phone: +46 8 775 40 54

Project Description Form, Indo-Swedish Joint Call on Circular Economy

Maximum 10 pages in size 12 font.

Please make sure you address each criterion for the call (see the call guidelines) in the project description.

Project summary

Summary of the project.

Background and state-of-the-art

Include description of how the proposed project relates to existing solutions and related solutions under development.

Describe the relevance of the project to the aim of the call and how it will contribute to that aim.

Project aims and goals

Please write clear, specific, realistic and measurable goals for the project. Describe what will be achieved with the project funding and how this is central for the transformation to a sustainable society.

Work plan

Describe the work tasks, deliverables, resources used in each work package (WP), roles and responsibilities. Include a plan for how the results from the projects will be transferred to other contexts and a risk analysis. Visualize the work in a timeline.

Work package/Activity	Roles and Responsibilities
WP 1, Title, estimated time in man-months and budget	Lead
Short description of aim and work and contribution of each participant.	Participant 1, Participant 2, And so on
Deliverables	

WP 2, Title, estimated time in man-months and budget	Lead
	Participant 1,
	Participant 2,
Deliverables	

Add as many work packages as needed to describe the project

Potential and impact

Describe the potential and impact of the project — in both short and long term — on sustainable development if the project is successful. The description must include how the results will benefit both women and men.

Describe communication and dissemination plans, including how to involve relevant stakeholders.

Project consortium

Describe the coordination of the project.

Describe the role of each project partner and how their expertise fit the aim and goals of the project and complement each other in achieving the common goal.

Describe how the expertise and capacities of the participating partners cooperate to benefit the quality of the work and fulfilment of project aims and goals. How will the collaboration generate mutual added value to the respective work and competence of the applicants? In which ways is the collaboration based on equal participation and how will it lead to mutual exchange of knowledge? Describe how the project team is composed when it comes to gender balance and influence. In the event the gender balance among the project participants is unequal (not within 40/60%), describe long-term goals related to equality and how you will work to approach these goals.

Describe the added value of the bilateral collaboration and how both India and Sweden will benefit from the project results.

Total budget of the project, including all funding

Costs

Costs	2022	2023	2024	2025
Personnel costs				
Equipment, land, buildings				
Consultants, licenses, etc.				

Other direct costs incl. travelling		
Indirect costs		

Please motivate and describe the budget and the content of budget posts.

Financing

Source	2022	2023	2024	2025
Applied from Formas				
Applied from DBT or DST				
Other funding, public				
Other funding, private				
Self-finance				

References

Any reference to relevant earlier results by own and other project teams. Both academic and other types of references.

CVs

CVs of key persons. Maximum 1 page per person and 5 pages per project (in addition to the maximum 10 pages allowed for the project description).