

Avdelningen för forskning, innovation och affärsutveckling

Impact Innovation: Urgent challenges within Swedish Metals & Minerals

*This call text has been machine translated. If there are any uncertainties, please see the Swedish text.

Appendix 1 and 2 are only available in Swedish.

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1 About the call

The call is conducted within the Swedish Metals & Minerals program, which is part of Impact Innovation – an initiative by the Swedish Energy Agency, Formas, and Vinnova.

The call aims to contribute to the Swedish Metals & Minerals mission to "Ensure a sustainable and resilient supply of metals and minerals for society's transition." This means increasing and securing the supply of metals and minerals while reducing the planetary footprint of extraction and production.

We welcome applications for research and innovation projects within one or more of the following themes:

1. Access to critical raw materials¹² from Sweden
2. Increased use of scrap and other secondary raw materials
3. Sustainable water management in the mining and metal production sectors
4. Reduced environmental impact from large waste streams in the mining and metal production sectors

Projects should have the potential to contribute to achieving the mission and goals of the call. The goals are found under each theme.

The results of the projects should be useful within the chosen theme, implemented, or used in the near term, but no later than five years after the project has ended. This does not mean that the projects need to start from a high readiness level (TRL). Projects can involve complementing or refining existing issues, techniques, or systems with more fundamental knowledge and methods.

By funding short thematic research and development projects, the call aims to strengthen Sweden's capabilities in some of the program's Technological action areas that:

1. were underrepresented in the program's first technical call and/or
2. are time-critical and therefore prioritized based on the program's mission and sub-goals.

Project proposals that fall outside the themes of this call or that fall within a theme but have a broader project scope, need a longer project time, or where the results are not expected to be useful in the near term, are referred to the call

"[Impact Innovation: Forsknings- och utvecklingsprojekt inom tekniska insatsområden i programmet Swedish Metals & Minerals.](#)"

¹ https://eur-lex.europa.eu/resource.html?uri=cellar:903d35cc-c4a2-11ed-a05c-01aa75ed71a1.0018.02/DOC_2&format=PDF

² <https://swedishmetalsandminerals.se/wp-content/uploads/2024/12/swedish-metals-minerals-scope.pdf>

Theme 1 – Access to Critical Raw Materials from Sweden

The goal of this theme is to increase access to critical raw materials from Sweden.

The main focus is on technical development or knowledge that has the potential to increase access to critical raw materials from primary sources, including by-products from existing operations (e.g., tailings), in a sustainable and economical way. Note that recycling or substitution of critical raw materials related to finished products is not included in this theme.

The theme includes, but is not limited to, projects that focus on:

- Increasing the amount of available critical raw materials from Swedish deposits through improved exploration methods and enhanced technology
- Developing methods and knowledge in ore geology including ore genesis models, geological modelling, and resource characterization
- Integrating geological characterization for optimization of mining operations and downstream refining
- Improved methods and techniques for sustainable extraction processes, including resource efficiency to recover critical raw materials as by-products or from mining waste.

Theme 2 – Increased Use of Scrap and Other Secondary Raw Materials

The goal of this theme is to increase the availability and use of scrap or other secondary raw materials.

The theme includes, but is not limited to, projects that focus on:

- Developing knowledge on how undesirable substances in metal alloys affect product properties in various areas
- Increasing the use of scrap through approaches, methods, and techniques for sorting, treatment, and separation
- Analysing and optimizing scrap and secondary material flows between different sectors and industries to increase recycling efficiency, including currently unused materials
- In combination with one or more of the above or similar topics: developing knowledge on how standards and regulations affect recycling and circular flows.

Theme 3 – Sustainable Water Management in the Mining and Metal Production Sectors

The goal of this theme is to reduce the environmental impact concerning water use in the mining or metal production sector or to increase knowledge about the bioavailability and environmental impact of various substances.

The theme includes, but is not limited to, projects that focus on:

- Developing water management systems and environmental technology that minimize the emissions of environmentally harmful substances from the mining and metal industry's water flows, including process integration or cross-sector integration for water reuse that reduces emissions and the need for freshwater
- Substitution of environmentally harmful chemicals and consumables in processes or methods to prevent the dissolution of metals
- Increasing knowledge about the bioavailability and environmental impact of various metals and metal compounds.

Theme 4 – Reduced Environmental Impact from Large Waste Streams in the Mining and Metal Production Sectors

The goal of this theme is to reduce the environmental impact related to mining waste and metal production.

The theme includes, but is not limited to, projects that focus on:

- Methods for refining, using, and managing mining waste (tailings, waste rock, slag, or sludge) to, for example, accelerated remediation, and/or land use with added value after closure. This should enable faster restoration of the land to a safe and usable state
- Valorisation of waste as a by-product in combination with reduced environmental impact

In addition to technical development, the selected projects should contribute to describing and disseminating the current state of the art, industrial challenges, and research front related to the specific area of the project. This should be done in the form of a report to be completed by the end of March and a presentation at an open physical workshop later in the spring (see section 8 special conditions). A maximum of four to five person-weeks is expected to be needed for this, which should be budgeted in a separate work package in the application.

This call includes support for projects that fall under the research categories of industrial research and experimental development. A description of the research categories can be found in Table 1, Appendix 1.

The call provides support in the form of grants. In this call, a total of approximately SEK 30 million is available for the project partners who are granted support. The goal is for two to four projects to be granted support within each theme. Project applications within each theme will be evaluated in separate ranking lists to achieve an even distribution between different themes.

The maximum allowable support per project is SEK 3.5 million. The Swedish Energy Agency's grant may amount to a maximum of 70% of the project's total eligible costs.

2 Important dates

Schedule for submission of application:

- Application submission period: April 9, 2025 – September 3, 2025
- Decision planned for November 2025
- Project start: November 15 - December 1, 2025
- Project must be completed by: December 1, 2027
- Project duration can be a maximum of 24 months.

On My Pages, the call is named "**Impact Innovation: Brånskande utmaningar inom Swedish Metals & Minerals**"

3 Who can apply?

The Swedish Energy Agency invites applications from:

- Companies (legal entities)
- Public sector organizations
- Universities and colleges
- Research institutes
- Non-governmental organizations

Consortia applying must consist of at least three project partners, of which at least one must be a company operating in Sweden, and at least one must be a research actor (university, colleges or research institute). The third part can be any type of organization. To facilitate rapid implementation or use of project results, end-users need to be involved in the project as partners or, for example, as members of the project's reference group. End-users are organizations that benefit from and can utilize the project's results.

4 How Do We Evaluate Your Application?

The Swedish Energy Agency evaluates project proposals according to the criteria below.

Potential

- The proposed project's potential to contribute to the goal of the chosen theme.
- The extent to which the project results can be useful within the chosen theme, implemented, or used within five years after the project is completed.

Utilization

- The degree to which the actors expected to create direct benefit or use of the project's results (end-users), i.e., the actors who can "take the next step," are involved in the project. They should be involved in the project in such a way that the delivery of project results can be adapted to the end-users.

Novelty and extent of innovation

- The extent to which the project proposal and its approach are new compared to previous attempts to address the same challenge(s).
- The extent to which a successful project result has the potential to be better than the state-of-the-art available techniques, methods, or knowledge.
- The extent to which the project results contribute to new knowledge required within the project's theme.

Feasibility

- The extent to which the project description contains clear goals and deliverables that address the project's issues, are trackable, and can be achieved through the project's implementation.
- The extent to which the project description shows that the project's schedule and activity plan:
 - Contains activities that comply with the definitions of industrial research or experimental development (see Appendix 1, section 1.2).
 - Is appropriate given the project's goals and ambitions.
 - Is logical and reasonable given the available resources (budget, competence, equipment, etc.) in relation to what is to be carried out.
- How well the application identifies the risks involved in the implementation and describes a plan for appropriate management of these.

Actor Constellation

- The extent to which the application shows that the participating organizations and key individuals have the competence required to successfully carry out the project (including subcontractors or other actors connected to the project but not project partners, e.g., in reference groups).
- The extent to which gender and equality have been considered in the composition of the project group, in the selection of the project manager, and in the project's implementation, content, as well as its goals and effects.

Project applications within each theme will be evaluated in separate ranking lists to achieve an even distribution between different themes.

5 What shall be included in the application

Be thorough when writing your application and attach relevant material. Read more about what the application should contain in the [Manual för att ansöka om och hantera stöd till forskning och innovation via Mina sidor](#).

- **CV attachment** (mandatory attachment) according to the template available on the call's webpage. It should contain relevant CVs for all individuals identified as key persons in the project description. CVs should not be longer than one A4 page per person.
- **Letters of intent** (mandatory attachment) according to the template available on the call's webpage. Each project partner must submit a declaration of intent signed by a person authorized to enter into research and innovation project agreements on behalf of the respective organization. Note that research organizations must also submit a declaration of intent.
- Reference list (optional attachment) where you can refer to published material.
- Attach any figures and images you refer to in the text. Note that the project description should be included in the application form and should not be attached as an appendix. The appendices should clearly complement the application form and not contain the same information as the application form.
- The appendix "**Intyg om stöd av mindre betydelse**" should be attached to your application if you are applying for de minimis aid support. See Appendix 1, section 1.3.

Templates and certificates can be downloaded from the call's webpage.

You can read more about how the Swedish Energy Agency processes personal data here: [Mer om hur Energimyndigheten behandlar personuppgifter](#).

6 How to apply

Follow these steps to speed up the processing of your application:

Use the e-service "Finansiering av forskning och innovation" på **Mina sidor** to write your application (<https://minasidor.energimyndigheten.se>)

Start by applying for **authorization to represent the coordinator**, i.e., the organization that will coordinate the project, receive the funding from the Swedish Energy Agency, and distribute the support to any other beneficiaries participating in the project. **Apply for authorization in good time**, as it may take a few days to obtain authorization. You will receive an email when your authorization application has been approved.

- Once you have received authorization for the e-service, you will have access to the form "Ansökan om finansiering av forskning och innovation", which you should fill in and submit.
- Write your application in English or Swedish. Applications written in Swedish may be translated into English as the evaluation will be conducted by international reviewers. Applicants will not have the opportunity to contribute to or review the translation. The English translation will be the basis for the evaluation and decision of the application. Applications in English must include a Swedish summary.

Note! Send a **Project Summary to the Swedish Metals & Minerals program office** via email at programkontor@swedishmetalsandminerals.se, at the same time as the application is sent to the Swedish Energy Agency. The summary should follow a template available on the call's webpage and be freely distributable and publishable. Therefore, it must not contain confidential or otherwise sensitive information.

Submit the application no later than September 3 at 23:59. We provide support until 16:00 on the same day.

7 How much support can a project partner receive

The amount of support each project partner can receive depends on:

- The eligible costs incurred by the project partner
- Whether the project partner is a company or conducts non-economic activities
- Whether the project partner is a small or medium-sized enterprise (SME)
- The research category that the activities in the project correspond to

All costs in the project must be actual and auditable, which means they must be separately accounted for in the bookkeeping.

In this call, we provide the following types of support:

- Support to actors conducting non-economic activities, such as universities, municipalities, and research institutes
- Support to companies for research and development projects within the categories of industrial research and experimental development
- De minimis aid

For more detailed information on support levels, eligible costs, and types of activities, see Appendix 1 and Appendix 2.

Note that in this call, each project can receive a maximum of 70% support level.

8 Special conditions if your application is approved

In addition to following the general conditions found in Appendix 2, the following special conditions must be followed if your application is approved.

We may also decide to add additional special conditions for individual projects. These will be stated in the decision.

- Each project must deliver an overview of the state of technology and development within the areas relevant to the specific project and present it at a workshop. The report and presentation will be made available to the public and should therefore be limited to the analysis of public material (literature review) or other non-confidential information. The report should be in English and submitted to the Swedish Metals & Minerals program office and the Swedish Energy Agency. It should be divided into sections with the following headings:
 - 1) International state-of-the-art
 - 2) Industrial challenges
 - 3) Research frontier
- The project must be represented by at least one project partner at the conferences and other activities organized within the program, approximately one to two times per year. The costs for such participation are eligible for support.
- The project must maintain continuous dialogue with the Swedish Metals & Minerals program office throughout the project's duration.
- When informing about the project and in every publication of project results, it must be stated that the work was carried out within the Impact Innovation program "Swedish Metals & Minerals" – an initiative by the Swedish Energy Agency, Formas, and Vinnova.
- In connection with the final reporting of the project, a summary of the project results must be sent to the Swedish Metals & Minerals program office via email at programkontor@swedishmetalsandminerals.se. The summary should follow the template available at www.impactinnovation.se. This summary should be freely distributable and publishable on the websites of the Swedish Energy Agency, Formas, Vinnova, and Impact Innovations and the program office. The summary must not contain confidential or otherwise sensitive information.

The continuous dialogue with the Swedish Metals & Minerals program office includes:

- Separate reporting to the program office during the project's implementation.
- The project being assigned a contact person at the program office who assists the project and follows it on behalf of the program.

9 What happens after you submit your application?

The version of the application you submitted before the call's closing date will be the basis for the Swedish Energy Agency's assessment.

The Swedish Energy Agency may request that you submit a supplement to the application if we find reasons for it. The Swedish Energy Agency may also conduct a credit check on the applicant company, project partners, owners, and board members.

Communication during the processing of your application will primarily take place through My Pages.

The Swedish Energy Agency decides to approve or reject your application, considering the evaluations according to the criteria above. You will then receive a notification from us about the decision made and the reasons for the decision.

You can follow what happens with your case on Mina sidor.

The payment of the funding will be made according to the payment plan included in the decision. For more information on payment, see the General Terms and Conditions for Support that accompany the support decision.

10 The call is part of the Swedish Metals & Minerals program, which is part of Impact Innovation

Impact Innovation is Sweden's major innovation initiative to tackle the challenges of our time and the future. In collaborations between actors in the private, public, and non-profit sectors, Impact Innovation meets real technological and societal needs with groundbreaking solutions. On the way to a sustainable and competitive Sweden, attractive to live in for everyone. Together, we show what is possible and lead internationally. Read more about Impact Innovation here: [Impact Innovation – Sweden's Innovation Initiative for the 2030s](#).

The mission of the Swedish Metals & Minerals program is "To ensure a sustainable and resilient supply of metals and minerals for society's transition." This means increasing and securing the supply of metals and minerals while reducing the planetary footprint of extraction and production. A description of the program's background and the action areas that are central to fulfilling the mission can be found in the program's scope document, see <https://swedishmetalsandminerals.se/>.

The program runs from March 2024 to December 2028 and has a budget framework of SEK 710 million.