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[2019-02079]

STRIM-2019

Call for proposals within the Strategic Innovation Programme for the Swedish Mining and Metal Producing Industry (STRIM)

The Strategic Innovation Programme for the Swedish Mining and Metal Producing Industry (STRIM) is part of Vinnova, the Swedish Energy Agency and the Swedish Research Council Formas joint program for strategic innovation areas. The aim with the programmes within strategic innovation areas is to stimulate international competitiveness and sustainable solutions for global societal challenges.

For more information about the programme, see www.sipstrim.se.

This document has been translated from the original Swedish text. In case of any discrepancies, the Swedish text applies. Swedish call text is Utlysningstext STRIM 2019, on the call's website found here:

<https://www.vinnova.se/e/strategiska-innovationsprogrammet-for-gruv-och-2014-00633/sip-strim-2019/>

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1 Summary of the call

You can apply for funding for shorter pre-studies, full-scale innovation projects or pilot projects that addresses challenges defined by the STRIM agenda (see www.sipstrim.se)

Planned budget for the call is 20 MSEK.

Maximum funding for a pre-study is 500 000 SEK and for full-scale innovation projects 10 MSEK. Full-scale and pilot projects may be granted up to 50% of eligible project costs and for pre-studies up to 75% of eligible project costs may be granted.

Pre-studies, maximum duration of six months, will aim to develop, verify and validate the development and commercial potential for possible future full-scale projects.

The project consortium can consist of only one partner, but the pre-study proposal must be able to demonstrate industrial relevance in the form of a letter of intent from at least one relevant company

Full-scale innovation projects, maximum of 36 months, which aim to develop and implement ideas that contribute to the realization of STRIM's overall objectives. The full-scale innovation projects must have a technology readiness level (TRL) between 4 and 7 (see appendix for a description of TRL) and focus on innovation, industrial engagement and benefits. The project consortium must consist of at least two partners from industry and one research organization (institute or academia).

Pilot projects, maximum of 18 months, which aim to demonstrate, test or implement new technologies, methods, processes or working procedures. The pilot projects must have a TRL between 5 and 7 and focus on innovation, industrial engagement and benefits.

The project consortium must consist of at least two partners from industry and one from research.

Only legal entities with registered organization numbers can be granted funding.

The applications will be evaluated by international reviewers so it is strongly recommended that proposals are written in English.

Important dates

Please note that the dates and times given are tentative. For the latest information, please visit www.vinnova.se.

Call for proposals opens	May 15, 2019
Call for proposals closes	November 7, 2019 at 14:00
Date of decision	February 20, 2020
Earliest date for project start	March 1, 2020
Latest date for project start	June 1, 2020

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Person to contact concerning the call for proposals' focus, content and desired effects:

Jenny Greberg, Head of Technology and Innovation STRIM

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E-mail: jenny.greberg@sipstrim.se**Person to contact concerning the assessment process, administrative, legal and other questions about the call's contents:**

Susanne Gylesjö, Programme Manager Vinnova

Tel: 08-473 31 87

E-Mail: susanne.gylesjo@vinnova.se**Contact for questions about the online application service:**

Vinnovas IT-support

Tel: 08-473 32 99

helpdesk@vinnova.se

Updated information on the call and link to the eServices submission portal are found at www.vinnova.se.

2 STRIM's aims and objectives

STRIM aims to strengthen the sector's competitiveness and contribute to a sustainable development within the mining and metal producing industry in following ways:

- world-leading and efficient research, development, innovation and education.
- a sustainable and secure raw materials supply that utilizes the country's geological potential in a sustainable way.
- a well-developed ability to act on the international market within profitable niches, with increased added value from products.
- the promotion of a set of rules and regulations compatible with an expanding industry that does not negatively impact international competitiveness while also achieving resource efficiency.
- strengthen Sweden's mining regions to make them innovative and attractive places for investments and living. Collaboration with small and medium-sized enterprises (SMEs) can play an important role in this.
- improve the mining sector's image by accepting social and environmental responsibility and offering attractive workplaces in which men and women work together to develop sustainable production processes.

SIP STRIM wants more stakeholders to collaborate to develop their innovation capacity and create new solutions that contribute to the goals of sustainable development in Agenda 2030, within the frame of the call's priorities.

Projects are expected to contribute to the development of an equal society by providing both women and men equal parts of the funding, influence and activities in the projects and by the projects' results benefiting both women and men. See more on [Vinnova.se](https://www.vinnova.se) about how you can integrate equality and gender aspects in your project.¹

3 Who may apply?

This call for proposals is aimed at consortia where companies, universities, research institutes and other relevant stakeholders contributing to STRIM's objectives can be included.

Pre-studies can be applied for by a single partner as long as the applicant can demonstrate industrial relevance in the form of a letter of intent from at least one relevant company. Consortia applying for full-scale innovation projects or pilot projects must consist of at least two partners from industry and one research organization.

¹ <https://www.vinnova.se/m/jamstalld-innovation/>

Project consortia covering the entire innovation chain from idea to end-user/market are considered positively as well as consortia with actors traditionally working in industries other than mining and metal extraction, so that more groundbreaking innovations can be created through new approaches.

4 What do we fund?

4.1 Project types eligible for funding

You can apply for funding for the following types of projects:

1) *Pre-studies*, with a maximum duration of six months that aim to develop, verify and validate methods, processes, procedures, pilot systems, testbeds or demonstrators for potential full-scale innovation projects. For pre-studies funding is a maximum of 75% of the project's eligible costs. The project consortium can consist of only one partner, but the pre-study must be able to demonstrate industrial relevance in the form of a letter of intent from at least one company.

2) *Full-scale innovation projects*, maximum of 36 months, which aim to implement ideas that contributes to the realization of STRIM's overall objectives. The full-scale innovation projects within STRIM must have a technology readiness level (TRL) between 4 and 7 (see appendix for a description of the TRL) and focus on innovation, industrial engagement and benefits. It is desirable for the project to demonstrate an increase of TRL within the project's term.

The project consortium must consist of at least two partners from industry and one research partner. Funding level is up to a maximum of 50% of eligible costs.

3) *Pilot projects*, maximum of 18 months, should aim to demonstrate, test or implement new technologies, methods, processes or procedures. The pilot projects within STRIM must have a TRL between 5 and 7 and focus on innovation, industrial engagement and benefits. The projects should be able to demonstrate an increase of TRL within the project's term.

The project consortium must consist of at least two partners from industry and one research partner. Funding level is up to a maximum of 50% of eligible costs.

4.2 Eligible costs

Vinnova's financing is through grants. Grants given by Vinnova to businesses and other organizations that conduct commercial activities are regulated by the rules

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governing state aid². The rules include, for example, which costs are eligible and how much can be covered by grants.

In this call for proposals funding can be granted for industrial research, experimental developments and feasibility studies³.

5 Budget for the call

The planned budget of this call for proposals is 20 MSEK.

Pre-studies can apply for funding up to a maximum of 500 000 SEK. Full-scale projects can apply for fund to a maximum of 10 MSEK. For full-scale innovation projects and pilot projects the maximum funding level is 50 percent of the projects eligible costs, and for pre-studies it is 75 percent of eligible costs.

Note that funding to individual project partners is limited by rules for state support.

6 Prerequisites for the application to be assessed

For a proposal to be eligible for assessment the following requirements must be met:

- ✓ The project partners must be legal entities.
- ✓ The project may not have started prior to the application's submission.
- ✓ Pre-studies must demonstrate industrial relevance by including a letter of intent from at least one company/industrial partner.
- ✓ Full-scale and pilot projects must include a letter of commitment from all industrial partners.
- ✓ For full-scale projects and pilot projects, the consortium must consist of at least two companies and one research partner.
- ✓ Full-scale projects and pilot proposals can apply for a maximum funding level of 50 percent of the project's eligible costs.
- ✓ Pre-study proposals can apply for a maximum funding level of 75 percent of the project's eligible costs.
- ✓ Applications must include everything requested in Section 9.
- ✓ Templates provided for project summary (projektreferat), project description (projektbeskrivning) and letter of commitment (styrkt åtagande) must be used.

² State aid: <https://www.vinnova.se/en/apply-for-funding/rules-for-our-funding/state-aid-to-companies/>. General conditions and guide to eligible costs: <https://www.vinnova.se/en/apply-for-funding/rules-for-our-funding/terms-and-conditions-for-our-funding/>

³ Table of funding levels for government support: <https://www.vinnova.se/globalassets/huvudsajt/sok-finansiering/regler-och-villkor/dokument/stodnivaer-statligt-stod.pdf>

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- ✓ Maximum project duration is 6 months for pre-studies, 36 months for full-scale innovation projects and 18 months for pilot projects.
- ✓ The project proposals should address at least one of the areas in the STRIM agenda.

7 Assessment of proposals

7.1 Assessment criteria

	Assessment criteria, pre-studies (Sub-criteria in italics are support and not assessed individually)	Assessment criteria, full-scale projects/pilot projects (Sub-criteria in italics are support and not assessed individually)
1	<p>Potential</p> <ul style="list-style-type: none"> • <i>The application's scientific quality</i> • <i>How well the project contributes to SIP STRIM's objectives</i> • <i>Extent of innovation</i> • <i>Potential impact of the project, e.g. follow-up projects with TRLs between 4 and 7 and its innovation potential</i> • <i>The results' contribution to and promotion of competitiveness and renewal in the Swedish mining and minerals sector</i> • <i>Industrial relevance</i> • <i>How well the project can contribute to a gender equal societal development.</i> 	<p>Potential</p> <ul style="list-style-type: none"> • <i>The application's scientific quality</i> • <i>How well the project contributes to SIP STRIM's objectives</i> • <i>Extent of innovation</i> • <i>TRL of 4-7 (full-scale) and 5-7 (pilot)</i> • <i>Potential impact of the project, e.g. innovation potential and its promotion of competitiveness and renewal in the Swedish mining and minerals sector</i> • <i>How the project contributes to sustainable development</i> • <i>Industrial relevance, commercialization potential, benefit to business</i> • <i>How well the project can contribute to a gender equal societal development.</i> • <i>The project's deliverables– what will the project deliver (method, prototype, patent, etc.)?</i> • <i>The possibility of leverage (to EU programmes, etc.)</i>
2	<p>Implementation</p> <ul style="list-style-type: none"> • <i>The quality of the organizational structure, methods and implementation</i> • <i>The soundness of the work plan and budget</i> • <i>Resource allocation (staff, equipment, etc.)</i> • <i>The implementation and application of results in industrial processes</i> • <i>How well gender equality aspects have been integrated in the project plan</i> 	<p>Implementation</p> <ul style="list-style-type: none"> • <i>The quality of the organizational structure, methods and implementation</i> • <i>The soundness of the work plan and budget</i> • <i>Resource allocation (staff, equipment, etc.)</i> • <i>The implementation and application of results in industrial processes</i> • <i>How well gender equality aspects have been integrated in the project plan</i>

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3	<p>Stakeholders</p> <ul style="list-style-type: none"> • <i>The expertise and relevant experience of the individual project members</i> • <i>The expertise within the consortium as a whole (incl. complementarity, the balance between industry, academia, research institutes, small and medium-sized enterprises, etc.)</i> • <i>Supplementary and interdisciplinary expertise within the project</i> • <i>How well the team (key persons) is composed regarding gender distribution, as well as the distribution of power and influence between women and men</i> 	<p>Stakeholders</p> <ul style="list-style-type: none"> • <i>The expertise and relevant experience of the individual project members</i> • <i>The expertise within the consortium as a whole (incl. complementarity, the balance between industry, academia, research institutes, small and medium-sized enterprises, etc.)</i> • <i>Supplementary and interdisciplinary expertise within the project</i> • <i>How well the team (key persons) is composed regarding gender distribution, as well as the distribution of power and influence between women and men</i>
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7.2 Assessment process

The assessment process is designed to identify the best proposals with regards to scientific quality, innovation potential, positive impact on the competitiveness of the Swedish mining and minerals sector and industrial collaboration and added value. The assessments of the applications will be performed by a group of evaluators appointed by Vinnova and comprised of both Swedish and international independent experts working under confidentiality. Pre-studies, full-scale innovation projects and pilot projects are ranked separately.

The following is a schematic representation of the evaluation and decision-making process:

1. Proposal and all forms are to be submitted via Vinnova’s eServices portal
2. Proposals that meet the formal requirements will be assessed by external national and international independent experts. Their assessment may include a short interview via Skype or telephone with the project leader for full-scale and pilot projects. This will result in a recommendation concerning financing and a ranking of the proposals.
3. Vinnova decides which projects will receive financing based on the recommended projects’ contribution to the balance in STRIM’s project portfolio.
4. Applicants are notified of the decisions and STRIM’s management is informed of the results.

8 Decisions and Conditions

8.1 Vinnova’s decision

The funding for each partner in approved applications will be stated in the decision. In this call funding is granted for industrial research, experimental

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development and feasibility studies. The basis of the funding decision is stated in the decision which also determines what costs are eligible.

Vinnova's decision to accept or reject an application cannot be appealed.

8.2 Conditions for granted funding

Vinnova's general terms and conditions for funding, as applicable on the date of decision, apply to this call for proposals.⁴ The terms and conditions include rules for project agreements, conditions for payment, follow-up, reporting and use of results.

As the call for proposals is made within the framework of strategic innovation programme the following special terms and conditions apply:

- The project should be represented by at least one project partner at conferences and other activities arranged within the STRIM programme, circa 2 times per year.
- For information about the project and for each publication of project results, it must be stated that the work has been carried out within the Strategic Innovation Program STRIM, a joint program from Vinnova, the Swedish Energy Agency and the Swedish Research Council Formas.
- When the project submits its final report to Vinnova a summary of the project results shall be sent to SIP STRIM programme office via e-mail. The summary can be shared and published freely and should not contain any confidential or otherwise sensitive information. See www.sipstrim.se for the template.

Additional special terms and conditions may be added for specific projects.

If you do not comply with Vinnova's terms and conditions, you may be liable for repayment. This also applies if you have been granted funding incorrectly or with an excessive amount.

9 How to apply

Applications are to be submitted electronically via the web-based application submission system (eServices portal) which can be accessed at Vinnova's website. The following documents are also to be uploaded⁵:

- Project summary (Projektreferat) using the template, one A4 page
- Project description (Projektbeskrivning) using the template

⁴ Terms and conditions: <https://www.vinnova.se/en/apply-for-funding/rules-for-our-funding/terms-and-conditions-for-our-funding/>

⁵ Templates are available on the call's webpage

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- CV for key persons in the project team (at least one person/project partner). Maximum of three A4 sized pages per CV.
- Signed letters of commitment from each industry partner using the template (full-scale and pilot projects)
- Letter of intent from at least one company (pre-studies) – no template available
- If the proposal is a continuation of a project previously granted funding within STRIM a summary of the content and results should be attached to the proposal (max. 2 pages). It should be clear in the proposal what was done in previous project and how the proposal will continue this work.

When submitting the proposal, the project summary should also be emailed to the STRIM Programme office Jenny.Greberg@sipstrim.se. The project summary can be shared and published freely and, should therefore not contain any confidential or otherwise sensitive information.

Because the application will be evaluated by international experts it is highly recommended to write the application in English.

After the submission deadline, no changes can be made to the proposal unless requested by Vinnova.

10 Confidentiality

Applications received by Vinnova become public documents however we do not release data of individual business or operating conditions, inventions and research results in cases where it can be assumed that the individual could suffer damage if the information were to be made public.

Documents sent to the organization responsible for the strategic innovation programme (STRIM Programme Office) are not covered by Vinnova privacy policy.

Appendix 1 – TRL

STRIM uses the following TRL

TRL 1 – basic principles observed

TRL 2 – technology *concept formulated*

TRL 3 – experimental *proof of concept*

TRL 4 – technology *validated in lab*

TRL 5 – technology *validated* in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 6 – technology *demonstrated* in relevant environment (industrially relevant environment in the case of key enabling technologies)

TRL 7 – system *prototype demonstration in operational environment*

TRL 8 – system *complete and qualified*

TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

