

CALL FOR PROPOSALS

1 (14)

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Produktion2030

Research and innovation projects A call for proposals within the strategic innovation program Produktion2030

Produktion2030 is part of Vinnova's, the Swedish Energy Agency's and Formas' joint effort on strategic innovation programs. The purpose of the investment in strategic innovation programs is to create conditions for international competitiveness and sustainable solutions to global societal challenges.

For more information about the program, see www.produktion2030.se



Med stöd från

VINNOVA
Sveriges innovationsmyndighet

 **Energimyndigheten**

FORMAS 

Strategiska
innovations-
program

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Revisionshistorik

Datum	Ändring
20201222	Adjustment of time plan
20210114	Adjustment of banner on front page
20210223	Updated links to guide for eligible costs

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1 Offer in brief

The strategic innovation program Produktion2030 announces SEK 30 million for research and innovation projects. Consortia can apply for a maximum of SEK 6 million in grant funding, which should correspond to a maximum of 50 percent of the project's total budget.

The call corresponds to Produktion2030's industrial challenge areas. The research and innovation project may have a project period of maximum 3 years. The call is aimed at project consortia consisting of actors in the Swedish manufacturing industry, colleges, universities and research institutes. Universities, colleges, institutes and small companies, with fewer than 50 employees, can receive a grant in this call for proposals.

The project consortium shall consist of:

- at least three companies relevant to Swedish manufacturing industry, of which at least one company with its own production in Sweden;
- at least one actor from a university or college;
- at least one actor from research institutes.

The proposals will be assessed by international evaluators, it is therefore recommended that the project description is written in English.

Timeplan for the call

The call opens on:	11 th of December 2020
Last proposal date:	4 th of March 2021
Decision date:	8 th of April 2021
Project start no later than:	29 th of April 2021
Project completion by:	26 th of April 2024

Impact goals for call for proposals of Research and innovation projects:

Effects within three to five years:

- Increased collaboration between actors in the Swedish manufacturing industry, colleges, universities, and research institutes
- Increased innovative capacity in the production area, for example new innovative production methods
- Improved adaptability of manufacturing industry, especially in relation to climate challenges and market requirements
- Increased access to knowledge and skills in the production area.

Long-term effects:

- Increased sustainability in the Swedish manufacturing industry
- Increased competitiveness in the Swedish manufacturing industry

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Contact regarding the proposal service:

Vinnova's IT support:

Technical questions about your proposal in the Stakeholder Portal,
Phone: +46 (0)8-473 32 99, helpdesk@vinnova.se

Up-to-date information and a link to our Stakeholder Portal is available at
portal.vinnova.se

2 What does Produktion2030 seek to achieve with this call?

Produktion2030 wants to contribute to increased sustainability and competitiveness in the Swedish manufacturing industry. The program also wants to increase collaboration between actors in the Swedish manufacturing industry, universities, colleges, and research institutes. The funding will strengthen the partners' innovative capacity and adaptability in relation to climate and the market. Produktion2030 also wants to increase access to knowledge and competence within the production area in the entire industrial system. This will be through allocation of funds for packaging and dissemination of knowledge from individual projects. The call will contribute to more results being made freely available. Scientific publication of results will be done under open access procedures.

The call funds research and innovation projects with a maximum project duration of 3 years. Consortia can apply for a maximum of SEK 6 million in grant funding, which should not exceed 50 percent of the project's total budget.

The projects are expected to contribute to equal development of society. Both women and men will be taking part in the contribution on an equal basis; have equal influence over the project; and participate actively in its implementation¹.

3 Who is this call for proposals aimed at?

The call for proposals is aimed at project consortia involving actors in Swedish manufacturing industry, colleges, universities, and research institutes. Produktion2030 puts great importance on participation by small and medium-sized companies in the project consortia. Universities, colleges, research institutes, and companies with a maximum of 49 employees can be beneficiaries.

4 What do we fund?

This call funds research and innovation projects within Produktion2030's six industrial challenge areas. Produktion2030's industrial challenge areas constitute important and prioritized challenges for the Swedish manufacturing industry (see Fig. 1). The extensive digitalization in the six areas constitutes parts of what is called Industry 4.0. All areas are also contributing to achieving the sustainability goals of Agenda 2030. Projects funded in this call for proposals should focus on Technology Readiness Level² (TRL) 5 - 7 and individual projects should have a clear focus on one of the challenge areas.

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

² [Technology readiness level - Wikipedia](#)

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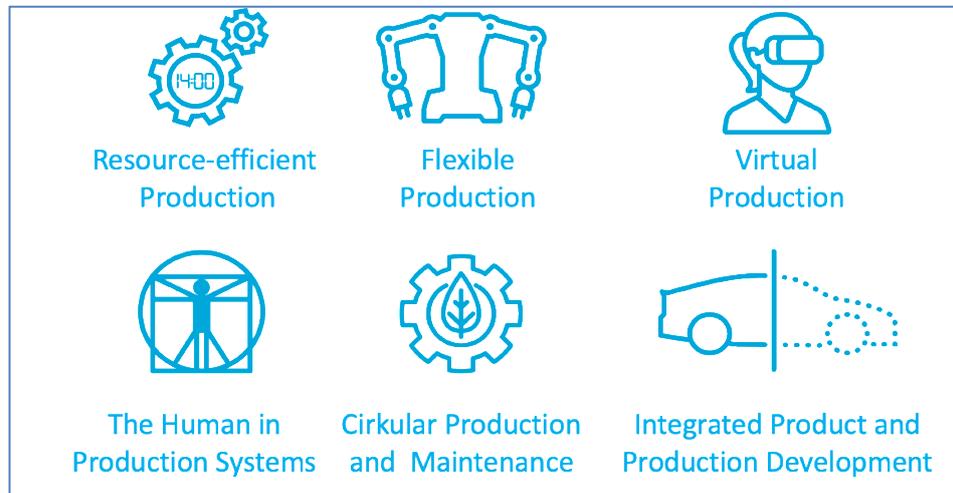


Fig. 1. Produktion2030's six industrial challenge areas.
Information about the areas is available at www.produktion2030.se

Below is a more detailed description of the challenges in these six areas

4.1 Challenge area 1

Resource-efficient production

Industrial challenge: Minimize resource consumption and environmental impact in production systems and products. Resource-efficient production is a prerequisite for manufacturing in a country like Sweden with its high wages and high-quality levels and material costs. Resources such as materials, people, energy, capital and time must be used efficiently for production to be competitive. Research and innovation aimed at resource-efficient and resilient production requires a holistic perspective, affecting all life cycle phases of products and production systems.

4.2 Challenge area 2

Flexible production

Industrial challenge: Develop manufacturing processes to match products of the future. Today's and tomorrow's consumers are increasingly demanding customized and individualized products. This puts great requirements on production flexibility. Flexible production handles volume changes, variants, new materials and new material combinations. We need new knowledge, innovative manufacturing methods, and automation solutions. Automation and digitalization contribute to flexibility through e.g. simulation or integration of systems to achieve decentralized control and monitoring of the production process.

4.3 Challenge area 3

Virtual production

Industrial challenge: Transforming information and data into knowledge and decision support in virtual and physical production systems. Virtual tools and digitized models are prerequisites for development of complex products and production systems in the future. In future factories, basically everything is connected to the internet. This provides opportunities to collect and analyze large amounts of data, in turn allowing production to be developed virtually. The virtual factory gives companies the ability to make the correct decisions by optimizing complex data and developing smart production strategies.

4.4 Challenge area 4

The Human in production systems

Industry challenge: To strengthen the collaboration between people and automation, developing human performance while increasing productivity and flexibility. Future industry is digital, but humans will play a key role. Complex production requires competent people to collaborate with advanced automated systems and robots. Digitalization, sensors, and large amounts of data impose new requirements on communication, interfaces, and distribution of tasks between people and technical systems. Technological development enables e.g. access to information regardless of language. New technical solutions provide opportunities to develop safe (also medical safety) and resilient workstations, work methods, and ergonomics.

4.5 Challenge area 5

Circular production systems and maintenance

Industry challenge: To develop skills and develop service-based products. Strategy for circular production, e.g. remanufacturing, is a way to enable smart, resilient, and resource-efficient products and production systems. Transition to circular economies and circular production requires new designs at product and production level. Through smart maintenance, new combinations of materials and components and analysis of data, the service life of products and production systems can be extended. To achieve this, we need to develop competence and find new types of service-based products.

4.6 Challenge area 6

Integrated production- and product development

Industry challenge: Strengthening product development processes and tools for innovative product development. As a product must create value for all actors in a smart supply chain. The development of products and production systems needs to be faster, parallel and integrated in order to meet the market's eligibility and

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requirements for speed and flexibility. Strengthening the integration of product and production development is central to competitive manufacturing companies.

5 Costs and funding

5.1 Conditions for received funding

Our funding is provided in the form of grants. Funding for organisations that operate economic activities is subject to regulations regarding state aid.³ These regulations govern which costs and what proportion of these costs may be covered by the grant. Universities, university colleges, research institutes and companies with a maximum of 49 employees can receive grants in this call. The GBER⁴ regulation complies with the activities that are eligible⁵ and support levels for different parties in the project

5.2 How much funding is available?

- The call's total budget is approximately SEK 30 million
- Individual project can receive a maximum of SEK 6 million
- A project consortium should consist of:
 - at least three companies, relevant to the Swedish manufacturing industry, of which at least one company with its own production in Sweden
 - at least one actor from a university or college;
 - at least one actor from a research institute
- Consortia can apply for a maximum of SEK 6 million in grant funding, corresponding to a maximum of 50 percent of the project's total budget.
- Universities, colleges, and research institutes as well as companies with less than 50 employees can be beneficiaries.

Aid intensity. The following support levels apply to companies, universities, colleges and research institutes. For research institutes, the term for the funding applies that they participate in their non-financial activities.

³ More information about state aid is available on our website (in Swedish) at: <https://www.vinnova.se/sok-finansiering/regler-for-finansiering/statligt-stod/>.

You will also find our general terms and conditions for our funding, as well as a guide to the terms and conditions governing eligible costs:

<https://www.vinnova.se/sok-finansiering/regler-for-finansiering/allmanna-villkor/>

⁴ https://ec.europa.eu/competition/state_aid/legislation/de_minimis_regulation_sv.pdf

<https://www.vinnova.se/globalassets/huvudsajt/sok-finansiering/regler-och-villkor/dokument/stodnivaer-statligt-stod.pdf>

⁵ https://www.vinnova.se/globalassets/huvudsajt/sok-finansiering/regler-och-villkor/dokument/villkor_om_stodberattigande_kostnader_-_guide.pdf

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Table 1. Aid intensities for different categories of project party in this call.

	Maximum number of employees	Maximum Turnover	Maximum support level
Small companies	Max. 49 employees ⁶	Max. 10 million euros	50 %
Larger companies	> 49 employees	-	0 %
Universities and university Colleges	-	-	100 %
Research Institutes	-	-	100 %
Estimated aid level for the project/consortium			50 %

6 Prerequisites for assessment of the proposal

Vinnova will only evaluate proposals that meet the following formal eligibility requirements:

- The project must not have started before the proposal is submitted.
- The project consortium shall consist of:
 - at least three companies, relevant to the Swedish manufacturing industry, of which at least one company produces in Sweden
 - at least one actor from a university or college;
 - at least one actor from research institutes
- The project partners must be legal entities.
- Companies, universities, or research institutes can be coordinators of the project.
- The project must be able to start no later than 29th of April 2021
- Project should be completed by 26th of April 2024.
- Proposal must be complete according to the instructions in chapter 9.
- Deviating proposals will not be assessed but rejected without further justification.
- At the time of proposal, the project summary must also be sent to the program management of Produktion 2030: cecilia.warrol@produktion2030.se
- Vinnova's grant can amount to a maximum of 50 percent of eligibility costs for project. The project budget reported shall only include eligible costs, see section 4.2. Project costs that are not eligible must, however, appear in the project description as they may be important in the assessment.
- Of the total project budget, 2.5 percent will be set aside for packaging and distributing project results outside the consortium, for example as technology workshops and / or training / continuous education modules. This must be clearly stated in the project description and budget summary.

⁶ <https://www.vinnova.se/globalassets/huvudsajt/sok-finansiering/regler-och-villkor/dokument/eu-definition-smf.pdf>

If the above requirements are NOT met, the proposal will not be assessed but will be rejected on formal grounds, without further justification. Once the proposal deadline has passed, proposals may only be supplemented at Vinnova’s request.

7 Assessment of proposals

A research and innovation project must have a clear focus on one of Produktion2030's challenge areas. This area must be stated in the project proposal. Proposals are assessed on the basis of three main criteria:

1. Potential
2. Actors and consortium
3. Implementation

7.1 How do we evaluate proposals?

Each proposal is assessed in competition with other submitted proposals and it is the electronic proposal submitted to Vinnova via Vinnova's eservices portal that will be assessed. An expert group of independent Swedish and international experts carries out the assessment.

		Criteria	Description
Potential	1.1	Impact goals	How well does the project contribute to the specific impact goals of the call?
	1.2	Level of research and originality	How high is the project’s level of research excellence and originality?
	1.3	Industrial and societal impact	How large is the project's industrial and societal impact?
	1.4	Environmental impact	How large positive environmental impact does the project have?
Actors and consortium	2.1	Project consortium	How well does the project consortium’s overall competence, project management, roles, and specified resource requirements match the goals of the project?
	2.2	Collaboration	How well does the proposal show how collaboration between the project parties is to be achieved, and that all parties participate on equal terms and with equal commitment?
	2.3	Gender equality	How well is the project consortium composed with respect to gender distribution and balance of power and influence between men and women?
Feasibility	3.1	Risk analysis	How clear is the proposal’s risk analysis? Are risks clearly identified and are activities for managing risks clearly described?
	3.2	Implementation and scalability	How well described is implementability and scalability of the project results in Swedish industry?
	3.3	Dissemination of results	How well is the dissemination of results to parties outside the project consortium described?
	3.4	Gender equality	How well are gender aspects integrated into the project plan?

The proposal and decision-making process is as follows:

1. Proposal shall be submitted via Vinnova's eservices portal
2. Project summary shall be sent to the program management for Produktion2030: cecilia.warrol@produktion2030.se.
3. Proposals meeting the formal requirements will be evaluated against the assessment criteria set out above. The evaluation will be done by specially appointed external evaluators who will give recommendations on which projects should be granted and which should be rejected. Normally, this means international experts in the field, we therefore recommend that the proposal is written in English.
4. Vinnova decides which projects are to be funded.
5. Decisions are notified to the applicant and the management of the strategic innovation program is informed of the outcome.

8 Decisions and conditions

8.1 Vinnovas decision

Vinnova decides which project are to be funded, considering the evaluators' recommendations and notifies the decision to applicant.

How much each party in the project is granted is stated in the decision. The decisions for the granted funding are supported by Article 25 of the Commission Regulation No 651/2014 (GBER), industrial research and experimental development. The aid basis is stated in the decision and also governs which costs are eligible. Proposals that meet the formal requirements and that have proceeded to assessment will receive a decision with a shorter description of how the proposal has been assessed, given the three criteria Potential, Actor constellation and Feasibility. Proposals that do not meet the formal requirements will be rejected with reference to which formal eligibility requirements were not met. Applicants do not receive any further feedback or decision motivation.

Vinnova's decision to grant or reject a proposal cannot be appealed. If the grant has been granted incorrectly or with an excessive amount, the recipient may be liable for repayment.

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8.2 Conditions for received funding

Vinnova's general terms and conditions for grants apply to grants awarded⁷. The terms and conditions include regulations on project agreements, conditions for payment, follow-up, reporting and utilization of results. Scientific publication of results must be made using open access in accordance with Vinnova's instructions.⁸

Since the call is made within the framework of strategic innovation programmes, the following special conditions also apply:

1. The project shall be represented by at least one project party at conferences and other activities organised under the strategic innovation programme Produktion2030.
2. The project shall maintain a continuous dialogue with Produktion2030's program office and project support throughout the project's duration
3. Information about the project and publications of project results must state that the work was carried out within the strategic innovation programme Produktion2030, a joint effort by Vinnova, Formas and the Swedish Energy Agency. Publication means, for example, the use of publishing, regardless of medium, and oral presentations.
4. At the same time as the project reports to Vinnova, a public summary of the project results must also be sent to Produktion2030 via e-mail Cecilia.warrol@produktion2030.se. The summary must be able to be distributed and published freely and must not contain confidential or sensitive information.
5. When presenting project results, Produktion2030's templates and logos must be used according to instructions from Produktion2030's programme office.
6. The coordinator shall provide information regarding the project summary, project manager and project consortium for publication at <http://www.kunskapsformedlingen.se>. Instructions and templates will be announced in close connection with the decision.
7. Of the total project budget, 2.5 percent shall be set aside in the form of packaging of project results for dissemination outside the consortium, for example in the form of technology workshops and / or training / further training modules.

Additional special conditions can be determined for individual project.

Our recommendation is that the coordinator prepares the form for participant's approval well in advance of the project start. If you do not follow Vinnova's term,

⁷ Current terms and conditions can be found on Vinnova's website, together with help to understand and meet the conditions <https://www.vinnova.se/sok-finansiering/regler-for-finansiering/allmanna-villkor/>

⁸ <https://vinatet.vinnova.se/contentassets/19d7ce8a36d243d499e2d7bd9840b80d/forslag-201109-vinnovas-anvisning-for-oppn-tillgang-till-vetenskapliga-publikationer.pdf>

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

To apply, please complete an online form in our Stakeholder Portal, which can be accessed via portal.vinnova.se. There you shall also upload the following appendices⁹:

- Project description
- Project summary (public)
- CV Appendix

The appendices must be submitted in pdf format.

- The project description must include a maximum of 10 standing A4 pages with single-column 12-point black text. References to information on web pages and the like will not be considered in assessment.
- The project summary (maximum two pages) must be publishable freely and thus must not contain confidential or otherwise sensitive information. In direct connection with the proposal to Vinnova, the appendix Project Summary must also be sent to the program office for Produktion2030 via email to the address: cecilia.warrol@produktion2030.se. This step is mandatory for the proposal to be considered for assessment.
- The CV appendix must contain relevant CVs for the project manager and all key people in the project team.

OBS! The proposal will be assessed by an international expert group, our recommendation is therefore to write a proposal in English.

All of the above appendices are mandatory and templates provided by the call must be used. Deviating proposals will not be assessed.

When the proposal period has expired, completion of the proposal can only take place at the request of Vinnova.

⁹ Templates for the attachments can be found on Vinnova's website:
<https://www.vinnova.se/e/strategiska-innovationsprogrammet-for-produktion-2030/sip-produktion2030-utlysning-13/>

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10 Who can read the proposal?

Proposals submitted to us are classified as public documents. However, we will not disclose any information about an individual's business or operating circumstances, inventions or research results if doing so could harm an individual.

Documents sent to the organisation responsible for the strategic innovation programme are not subject to Vinnova's confidentiality rules.