

Joint call Sweden-Finland

Development of key enabling technologies for biobased products

The Swedish part of the call is funded by Vinnova within the strategic innovation program BioInnovation. The Finnish part of the call is funded by Business Finland.

1 The offer in short

In this offer, we support projects that intend to develop enabling process steps for manufacturing of biobased chemicals and materials. The call focuses specifically on technologies that enable moving biobased products and materials from lab scale towards pilot or demo scale.

We encourage Swedish-Finnish cooperation projects, which apply to both funding agencies for national funding. The call is also open for purely Swedish and purely Finnish projects, which then apply only to the respective national funding according to the national funding rules. This is a joint call with joint assessment, but projects will need to adhere to formalities of the funding agencies to which they apply.

The call is primarily directed to manufacturers, suppliers and users of biobased materials, products and services. Universities, university colleges, research institutes and other relevant actors are also included in the offer.

The budget available to fund Swedish partners is 27 million SEK. Swedish partners in a project can maximally be funded with 6 million SEK. At least 6 Million SEK from this budget are reserved to fund Swedish partners in Swedish-Finnish cooperation projects. The estimated budget available to fund Finnish partners in Swedish-Finnish cooperation projects is 2 million Euro. For Finnish partners there is no pre-fixed maximum for funding of a project. The funding



between Swedish and Finnish partners should be in reasonable balance based on the work needed to reach the project targets.

The duration of a project is maximally 2,5 years.

Time plan for the call

Call opens:	2018-03-20
Deadline for applications:	2018-06-14 at 2 pm (Sweden) 3 pm (Finland)
Decision date:	2018-09-21
Earliest date for project start:	2018-09-21
Latest date for project start:	2018-11-01
Latest date for project end:	2021-04-30

Contact persons regarding the call background, purpose and expected effects:

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2 What do we want to achieve with the funding?

Today there is a wide range of results and demonstrations of biobased solutions that are produced in lab scale, and that show large potential. However, technical processes for realization of these are often lacking, as is funding for process development. Simultaneously, market actors are needed to take an active role in this development to speed up the commercialization of the research results.

New products and materials demand new processes. We want to support development of enabling process steps in this call. These are expected to unlock new possibilities for

- Use of raw material and energy
- Manufacturing of new materials and chemicals
- Manufacturing of materials and chemicals with superior properties
- New ways to utilize existing or new biobased streams, including issues on circularity, sustainability and customer needs

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The purpose of this thematic call is to offer an opportunity to companies (Business Finland especially welcomes SMEs) and research organizations to jointly develop process steps that one way or another are critical for commercial manufacturing of biobased chemicals and materials with large market potential. The goal is upscaling of promising solutions from TRL 3-4 to TRL 5-7, thus taking them from lab scale to pilot or demo.

With this call, we want to contribute to renewal and development of the production systems, of resource efficient processes, and support to critical TRL thresholds. We also want to see market actors taking the lead in the projects and create new cooperation

The funding should also contribute to an equal societal development by having both women and men receiving funding equally, having influence over the project and actively contributing to its implementation.

2.1 Cooperation Sweden-Finland

New bio-based products are targeted for global markets. For this call, a clear cooperation possibility between strong bioproduct and biomaterial competences in Sweden and Finland has been identified. This also means a cooperation between Vinnova and Business Finland in supporting joint projects with complementing activities in both countries.

Both Finland and Sweden are developing new ways to encourage and support the development of novel biobased products. In Sweden, Vinnova has launched the Strategic Innovation Program *BioInnovation*, and in Finland, Business Finland and CLIC Innovation have supported the ecosystem around *New Cellulose and Fibre Products*. At the same time, the *Tandem Forest Values* call (Sweden's gift to Finland 2017) has generated new possibilities for academic researchers from the two countries to cooperate in forest bioeconomy issues.

It is of great interest to further support joint research where Finnish and Swedish companies and research organizations can complement and benefit from each other's expertise and solutions, and where lab and piloting resources can be co-used in developing new biobased solutions. This is why Vinnova – through BioInnovation – and Business Finland – working together with CLIC Innovation's New Cellulose and Fibre Products Network – are opening this call for joint projects of Finnish and Swedish companies and research organizations.

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3 To whom is the call directed?

The call is primarily directed to manufacturers, suppliers and users of biobased materials, products and services. Universities, university colleges, research institutes and other relevant actors are also included in the offer. The project consortium must consist of at least three partners, of which at least two are companies.

For cooperation projects, in which both Swedish and Finnish partners apply for funding, at least one partner must be a Swedish company and at least one partner must be a Finnish company. To be counted as two partners the Swedish and the Finnish companies cannot belong to the same group structure.

It is a clear ambition in this call to catch the concrete opportunities seen by different market actors. They can be manufacturers and suppliers of biobased materials, products and services. This call will prioritize applications that clearly show that the project is of strategic importance to the participating companies and that the companies take a lead in the project and in defining the research needs.

4 What do we fund?

4.1 Activities applicable for funding

Projects in this call should develop enabling process steps for manufacturing of biobased chemicals and materials. The goal is upscaling from TRL 3-4 to TRL 5-7, thus taking solutions from lab scale to pilot or demo. Typical activities that can be funded include the following

- Development of process steps
 - o Research and development work
 - o Necessary materials and equipment for the R&D work
- Knowledge on expected market need and techno-economic analysis
- Roadmap for utilization of the results and for further upscaling

A project applying for funding in this call shall

- Develop or establish new enabling process steps, technology solutions, etc. that have potential to considerably contribute to and benefit from the conversion to a biobased economy
- Have a clear innovation focus and create new opportunities for biobased materials, products and services
- Have a clear market focus. The project can also develop additional knowledge on expected markets where project results can be utilized.

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This call does not focus on purely theoretical work or on smaller developments steps of commercial processes.

5 How large funding is available?

The budget available to fund Swedish partners is 27 million SEK. Swedish partners in a project can maximally be funded with 6 million SEK. At least 6 Million SEK from this budget are reserved to fund Swedish partners in Swedish-Finnish cooperation projects. The estimated budget available to fund Finnish partners in Swedish-Finnish cooperation projects is 2 million Euro. For Finnish partners there is no pre-fixed maximum for funding of a project. The funding between Swedish and Finnish partners should be in reasonable balance based on the work needed to reach the project targets.

The duration of a project is maximally 2,5 years.

6 Assessment of applications

6.1 What do we assess?

Decisions on funding are based on an overall assessment of the project regarding potential, feasibility and consortium according to the following criteria. Note that each sub criterion will be assessed individually, and that applications that best meet all sub criteria will be prioritized.

Potential

- *The idea has large market potential*
- *The idea brings new business possibilities to Swedish and Finnish companies*
- *The idea has great potential for industrial implementation after the project*
- *The idea has potential to contribute to and benefit from the conversion to a biobased economy*
- *Either of the four below*
 - *The idea creates a radically improved efficiency in use of raw material and energy*
 - *The idea creates radically improved product properties*
 - *The idea enables an new process, product or material*
 - *The idea creates significant climate benefit*

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Feasibility

- *Bridging of the TRL¹ gap is clearly described*
- *Activities in the project are clearly described and motivated*
- *The project plan is realistic*
- *Planned activities contribute to achieving expected results and can be completed during the project period*

Consortium

- *Market actors have a leading role and are actively involved in governance and implementation*
- *The consortium represents relevant parts of the value chain that the project addresses*
- *The project partners have clear roles and complement each other well*
- *Individuals in the project have ability and credibility to complete the project*
- *Swedish and Finnish actors and their lab and pilot facilities cooperate in the consortium*
- *The project team (key persons) is well assembled in terms of gender and the distribution of power and influence between women and men (an equal distribution is considered to be achieved when gender distribution and the distribution of power and influence in the form of work and roles are within the range 40/60 %)*

6.2 How do we assess?

We encourage Swedish-Finnish cooperation projects, which apply to both funding agencies for national funding. The call is also open for purely Swedish and purely Finnish projects, which then apply only to the respective national funding according to the national funding rules. This is a joint call with joint assessment, but projects will need to adhere to formalities of the funding agencies to which they apply (see section 7 and 8).

The assessment will be done based on the application and the submitted project description. The applications will be assessed in competition with each other.

Schematically, the decision process is as follows:

1. The application is submitted through the respective web portals (see sections 7 and 8 for instructions on how to apply).

¹ According to EU commission definition (see table in Annex G),
<https://ec.europa.eu/research/participants/portal/desktop/en/support/faqs/faq-2890.html>

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2. Applications fulfilling the national formal requirements will be assessed with respect to the assessment criteria by external experts. This results in a funding recommendation.
3. Business Finland and Vinnova agree on which projects to fund based on the recommendation and available budget.
4. National decisions are made by Vinnova and Business Finland and are announced to the applicants. In Sweden the BioInnovation program management is informed of the outcome. In Finland the projects will be part of Business Finland's BioNets programme and their titles will be published at the programme's web page.

7 For Swedish participants

7.1 How to apply

To apply for a grant, fill in a web-based form in Vinnova's application service ("Intressentportalen"), which is accessed through the web site. There you also upload the following attachments²:

- Project description **in English** according to template. The project description may be up to 10 pages with 12-point text, and it should provide the information requested in the template.
- CV annex, for the project leader and key persons in the project team. For each person, use max 1 A4-page in English according to template.

At application, the attachment "Projektreferat" should be sent to BioInnovation via e-mail to info@bioinnovation.se. It should be possible to freely disseminate and publish it, and it should not contain confidential or otherwise sensitive data. The template for this is available at Vinnovas webpage for the call.

Instructions for Swedish-Finnish cooperation project applications:

Swedish partners submit the application to Vinnova according to the following:

- The Swedish consortium must have a project leader for the Swedish part of the project. The project leader submits one application for the consortium.
- One of the Swedish partners must be the coordinator organization for the Swedish part of the project. The coordinator organization must fulfill the requirements of a coordinator according to Vinnova's general terms for projects and grants (section 7.3.2).

² Templates for the attachments can be found at the call web site at www.vinnova.se



- The project description and CVs attached to the application must be the same as the ones submitted by the Finnish partners to Business Finland.

We recommend to contact Vinnova with any questions before the deadline for applications (section 7.5). The deadline for applications is June 14th, 2018 at 2 pm Swedish time.

When the application deadline has expired, additional information concerning the application which is to be considered in the evaluation process can only be requested from Vinnova.

7.2 National rules

7.2.1 Formal requirements

Project applications must fulfill the following requirements in order to be eligible for funding:

- The project leader is employed by one of the project partners
- The project partners must be legal entities
- The project consortium must consist of at least three partners, of which at least two are companies.

7.2.2 Companies and eligible costs

Project partners that are companies must finance at least 50 % of the total eligible costs of a project. In Swedish-Finnish cooperation projects, Swedish companies must finance at least 50 % of the eligible costs of the Swedish part of the project. Companies must be limited liability companies (“aktiebolag”) or economic associations (“ekonomiska föreningar”) with active business operations. Research institutes in company form, university holding companies, incubators and consulting companies are in this context excluded from the category of companies.

Companies must have at least as much equity as applied funding according to the balance sheet at the time of application. The company must be at least one year old at the time of application according to the registration date at the Swedish Companies Registration Office (“Bolagsverket”).

Vinnova funding is made through grants. Grants to organizations engaged in economic activity, like companies, are subject to state aid rules³ (see section 7.3.1). The rules cover, among other things, what type of costs and the percentage of those that may be funded by grants.

7.3 Decisions and conditions

Projects funded in this call will participate in and contribute to BioInnovation's work with external communication, portfolio analysis, communication of results and systematic learning.⁴

7.3.1 About Vinnova's decisions

How much each project partner is granted is stated in the decision. Grants will be based on Vinnova's ordinance regarding state aid for research and development as well as innovation SFS 2015:208.

Vinnova's decision to grant or decline an application cannot be appealed.

7.3.2 Specific terms and conditions for grants

Vinnova's general terms and conditions⁵ apply for grants. The terms include rules on project agreements, conditions for payment, follow-up, reporting and utilization of results.

Since the call is within the framework of the strategic innovation program BioInnovation, the following special conditions apply:

- At least one project partner must represent the project at the conferences and other activities that are arranged within the strategic innovation program BioInnovation, and where the project is invited and asked to contribute.
- 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 BioInnovation, a joint venture by Vinnova, Energimyndigheten and Formas. This applies to publication regardless of medium and to oral presentations.

³ Read more about state aid rules at the Vinnova web site: <https://www.vinnova.se/sok-finansiering/regler-for-finansiering/statligt-stod/>. There you will also find the Vinnova general terms and conditions for grants, and a guide to eligible costs: <https://www.vinnova.se/sok-finansiering/regler-for-finansiering/allmanna-villkor/>

⁴ <https://www.vinnova.se/sok-finansiering/regler-for-finansiering/statligt-stod/>

⁵ Terms and conditions can be found at the Vinnova web site, together with guidelines to understand and fulfill the terms: <https://www.vinnova.se/sok-finansiering/regler-for-finansiering/allmanna-villkor/>

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Additional special conditions can be decided for individual projects.

If you do not comply to the terms, you may be liable for repayment. This also applies if the grant decision was incorrect or with an excessive amount.

7.4 Who can read the application?

Applications submitted to Vinnova will be public documents, but we will not disclose information about business or operating conditions, inventions or research results if it can be assumed that any individual may suffer damage.

Documents sent to BioInnovation are not covered by Vinnovas privacy statements. Such documents should therefore not be deemed to be classified unless this is clearly stated.

7.5 Contact

Contact person regarding the application process, the assessment process and other questions about the contents of the call:

Anders Holmgren, Call manager at Vinnova
+46 8-473 3213
anders.holmgren@vinnova.se

Contact person regarding the call background, purpose and expected effects:

Anna Wiberg, BioInnovation program manager
+46 8-762 7995
anna.wiberg@bioinnovation.se

Administrative matters:

Bengt Larsson, Vinnova
+46 8-476 3114
bengt.larsson@vinnova.se

Contact regarding the application web service:

Vinnova IT support
+46 8-473 32 99
helpdesk@vinnova.se

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Current information about the call and link to Vinnova's application service is at www.vinnova.se.

7.6 Information about BioInnovation

The strategic innovation program BioInnovation is a part of a joint venture by Vinnova, Energimyndigheten and Formas on strategic innovation areas. The purpose of the effort is to create conditions for international competitiveness and sustainable solutions on global societal challenges.

BioInnovation is a strategic innovation program with focus on a Swedish bioeconomy. All the program activities should contribute to and benefit from such development. The road goes through broad cooperation, and winners are climate and environment as well as Swedish competitiveness and export.

BioInnovation's vision

Sweden has made the conversion to a biobased economy by 2050

BioInnovation's mission

Create the best conditions to increase the added value in the Swedish bio-based sector

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



8 For Finnish participants

8.1 Formal requirements

In this call Business Finland can fund companies, research institutes and universities. Business Finland is especially looking for projects, which give new possibilities for SME's in the international growth markets. In this call Business Finland is prioritising Swedish-Finnish co-operation projects. However, it is also possible for Business Finland to fund purely Finnish projects and consortiums according to the regular Business Finland funding criteria.



Business Finland funding criteria for Finnish participants in the call:

1. For SME's Business Finland can fund up to 50 % of their total project costs. Funding criteria for SME's: <https://www.businessfinland.fi/en/for-finnish-customers/services/funding/sme/research-development-and-piloting/>
2. For large companies Business Finland can fund up to 40 % of the total cost. Funding criteria for large companies: <https://www.businessfinland.fi/en/for-finnish-customers/services/funding/large-companies/research-development-and-piloting/>
3. Finnish research organisations can participate this call in a project consortium with companies. In each consortium there should be at least two companies. At least one of them should be a Finnish company with its own sub-project with possible Business Finland funding. In addition, it is important that relevant companies (including SME's) that can utilize the research results are participating in the consortium (with their own project or e.g. in a steering group).

For research organizations Business Finland can fund up to 70 % of the total costs. Funding criteria for research organizations is following the criteria for Business Finland's co-innovation projects:

<https://www.businessfinland.fi/en/for-finnish-customers/services/funding/research-organizations/co-innovation/>

8.2 How to apply?

Finnish companies and research organizations participating in the call are asked to contact Business Finland prior to the application.

Each Finnish company and research organization applying funding needs to submit its own funding application to Business Finland through online submission portal (<https://www.businessfinland.fi/en/for-finnish-customers/online-services/>).

For Swedish-Finnish co-operation projects, the following documents should be attached when submitting the funding application:



- Project description in English according to template. The project description may be up to 10 pages with 12-point text, and it should provide the information requested in the template.
- CV annex, for the project leader and key persons in the project team. For each person, use max 1 A4-page in English according to template.

For Swedish-Finnish co-operation projects, the project description and CVs attached to the application must be the same as the ones submitted by the Swedish partners to Vinnova.

Deadline for applications is June 14th, 2018 at 3 pm Finnish time.

The decision on the funded projects are expected to be made in September 2018.

8.3 Who can read the application?

By applying to this funding the applicants agree that the joint project proposal written by the consortium can be evaluated by an expert panel which may include experts outside the funding organizations. The company specific application form submitted through the online submission system (excluding the joint project proposal by consortium) is evaluated only at Business Finland.

9 Contact

Contact persons regarding the call background, expected effects, practical matters and funding principles:

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Business Finland
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tuula.savola(at)businessfinland.fi

Ilmari Absetz, Chief adviser
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Contact person regarding networking possibilities and R&D needs in the biobased products area:

Christine Hagström-Näsi, Senior advisor
CLIC Innovation
tel: +358 (0)50 3222401
christine.hagstrom-nasi(at)clicinnovation.fi

**10 Information about Business Finland**

Business Finland's goal is to enable companies to grow internationally and to create world-class business ecosystems and a competitive business environment in Finland.

Business Finland's bioeconomy programme has launched bioeconomy related ecosystems one of which is *New Cellulose and Fibre Products* by CLIC Innovation. One goal of the ecosystem is to create joint actions with companies and research organisations to speed up the development and commercialisation of new bio based products. This will give new business opportunities and new growth for companies, especially SME's. This call supports the networking of the Finnish and Swedish biobased product ecosystems. The call is open for all Finnish companies and research organisations.

More info:

Business Finland: <https://www.businessfinland.fi/en/>

CLIC Innovation's New Cellulose and Fibre Products Ecosystem:
<https://newfibres.fi/en/>

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