

An overview of Sweden Strategic Innovation Programs

Latest update
June 2020



Services to facilitate investments in Sweden

WHAT WE DO

- Support business leaders in decision-making processes regarding investments in Sweden
- Engage in building business cases for a solution in Sweden by providing advices and conditions needed in an evaluation process related to new, expanding or consolidation of operations

AREAS OF ENGAGEMENT

Find opportunities
to develop operations and products

Mitigate risks
and secure informed
decision making processes

Accelerate landing
in an implementation process

EXAMPLE OF DELIVERIES

- Comparative studies and arguments for decision making
- Support in building business case
- Location searches and RFI reports
- Project coordination
- Marketing activities to create awareness
- Mapping of grants and incentives
- Identification of relevant Test bed & research projects
- Location costs
- Subcontractor searches
- Access to relevant networks

About Business Region Skaraborg



Business Region Skaraborgs purpose is to strengthen the regional business climate in Skaraborg and to attract and expand foreign owned companies.

Business Region Skaraborg was founded in the fall of 2018, from mutual interest from Skaraborg's fifteen municipalities and the Region Västra Götaland. Business Region Skaraborg offers services free of charge for investors that wants to find the best location within the region.

About Business Sweden



Business Sweden's purpose is to help Swedish companies grow global sales and international companies invest and expand in Sweden.

Business Sweden was founded on the first of January, 2013, by a merger of the Swedish Trade Council (Exportrådet) and Invest Sweden. Business Sweden is owned by the Swedish Government and the industry, a partnership that provides access to contacts and networks at all levels.

17 Strategic Innovation Programmes

Vinnova, the Swedish energy agency and the Swedish research council Formas jointly finance a total of 17 strategic innovation programmes.

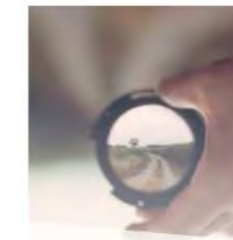
Cooperation in areas of strategic importance to Sweden both creates the preconditions for finding sustainable solutions to global social challenges and increases Sweden's competitiveness in the international arena.

Businesses, academia and organisations join forces under the umbrella of these programmes to develop the sustainable products and services of the future.

Anyone who is able to assist with this development is welcome to apply for funding.

<https://www.vinnova.se/en/m/strategic-innovation-programmes/>

Every year Vinnova invests approximately
SEK 3 billion
in research and innovation.



Bioinnovation >



Drive Sweden >



Sio grafen >



Strim >



InfraSweden2030 >



Internet of Things >



Lightweight >



Medtech4Health >



Metallic material >



Process industrial IT
and automation –
PiiA >



Production 2030 >



RE:Source >



Smarter electronic
systems >



SWELife >



Smart Built
Environment >



Viable Cities >

Strategic innovation programmes

Strategic Innovation Programme	Description
<u>Bioinnovation</u>	Promotes a bio-based economy for value-added and competitiveness in the bio-based sector by 2050.
<u>Drive Sweden</u>	Drive Sweden encourages and supports progress towards a transportation system for people and goods that makes use of automation, digitalization and services. The path to achieving this vision is through cross-sector cooperation.
<u>Sio grafen</u>	Making Sweden one of the world's top ten countries in the use of graphene to ensure the country's industrial leadership.
<u>Strim</u>	Contribution to sustainable growth and strengthening the competitiveness of Swedish mining and metal extraction industries.
<u>InfraSweden2030</u>	In this venture we finance projects that develop ideas and plans for how we in Sweden can build and maintain our transport infrastructure in a smarter and more sustainable way.
<u>Internet of Things</u>	Internet of Things Sweden is a national drive for Sweden to become a leader in the use of the Internet of Things. Focus lies on solving societal challenges.
<u>Lightweight</u>	Lightweight gathers parties to spread the industrial application of lightweight technology through research and innovation.
<u>Medtech4Health</u>	Medtech4Health supports needs-based innovation in the field of medical technology.
<u>Metallic materials</u>	Metallic material gathers Sweden's metal industries within steel, aluminum, hard metals, cast steel, cast iron and cast non-ferrous metals.
<u>Process industrial IT and automation – PiiA</u>	PiiA contributes to the development and use of automation and digitalization within industry.
<u>Production2030</u>	The programme is focused on the areas that require investment to maintain competitiveness. The aim of the venture is to create a national base of research, innovation, and training for competitive Swedish production 2030.
<u>RE:Source</u>	Sweden aims to become a world leader in minimizing and resuing waste. This is the vision for the national innovation arena RE:Source.
<u>Smarter electronic systems</u>	Smarter electronic systems creates cross boundary work to develop micro and nano electronics, photonics, micromechanics, power electronics and integrated systems in Sweden
<u>SWELife</u>	SWELife is a national initiative to coordinate and develop stable research and innovation processes for Swedish Life Science.
<u>Smart Built Environment</u>	The Smart Built Environment programme aims to create new opportunities through digitalized urban development. The project's focus is on how digitalization can serve as a catalyst for change in the built environment.
<u>Viable Cities</u>	Viable Cities is a long-term initiative intended to make smart cities a key element in the transition to a sustainable society.
<u>Innovair</u>	Innovair is Sweden's national strategic innovation programme for aeronautics. The aim is to coordinate and support stakeholders from industry, universities, institutes, associations and government agencies active in the aeronautics sector.

Advice on participating in Call for Proposals



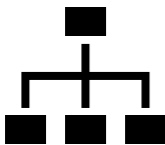
Be prepared

- The call for proposals can appear within short notice, and with a limited time to apply. It is therefore recommended to have some initial ideas on what project you are interested in, and to start your application in time



Build relationships

- Collaboration is strongly encouraged when applying for call for proposals. Therefore ensure to have a network of potential partners in your project. Partners can come from academia, research organizations, and other companies facing similar issues and research interests as you.



Ensure organizational readiness

- Have a organizational structure in place to manage the research project, and have the ability to mobilize to make an application when a relevant call for proposal arises.



Contribution can be in kind

- Your contribution to the project does not to be financial, you can contribute in kind with time, resources and equipment.

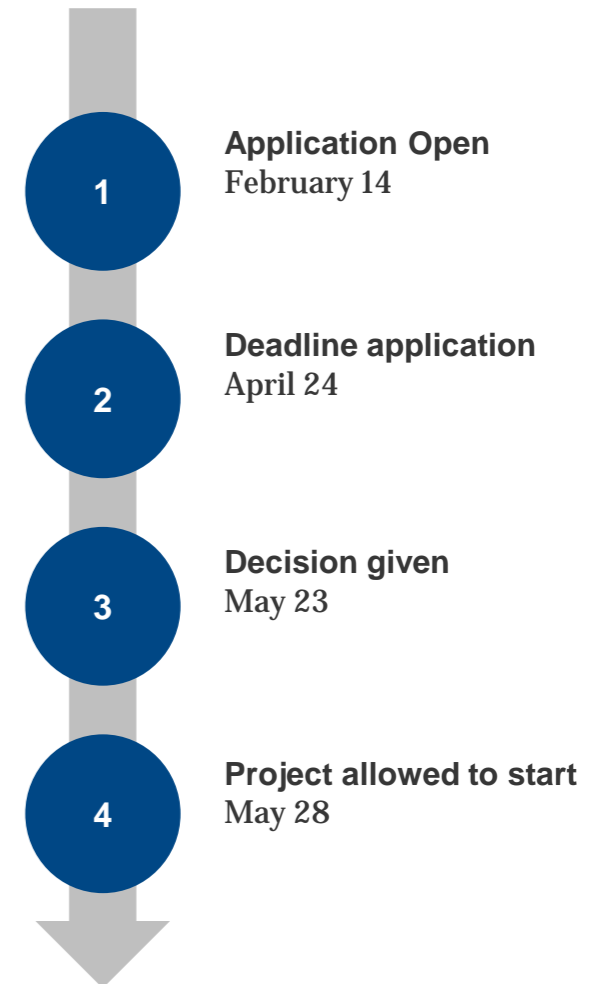


Help and questions

- Would you require help and support on how to engage in a fruitful research collaboration with other companies and organizations, then please contact us at Business Sweden and we will do our best to help connect you to the Swedish innovation system.

Example of timeline

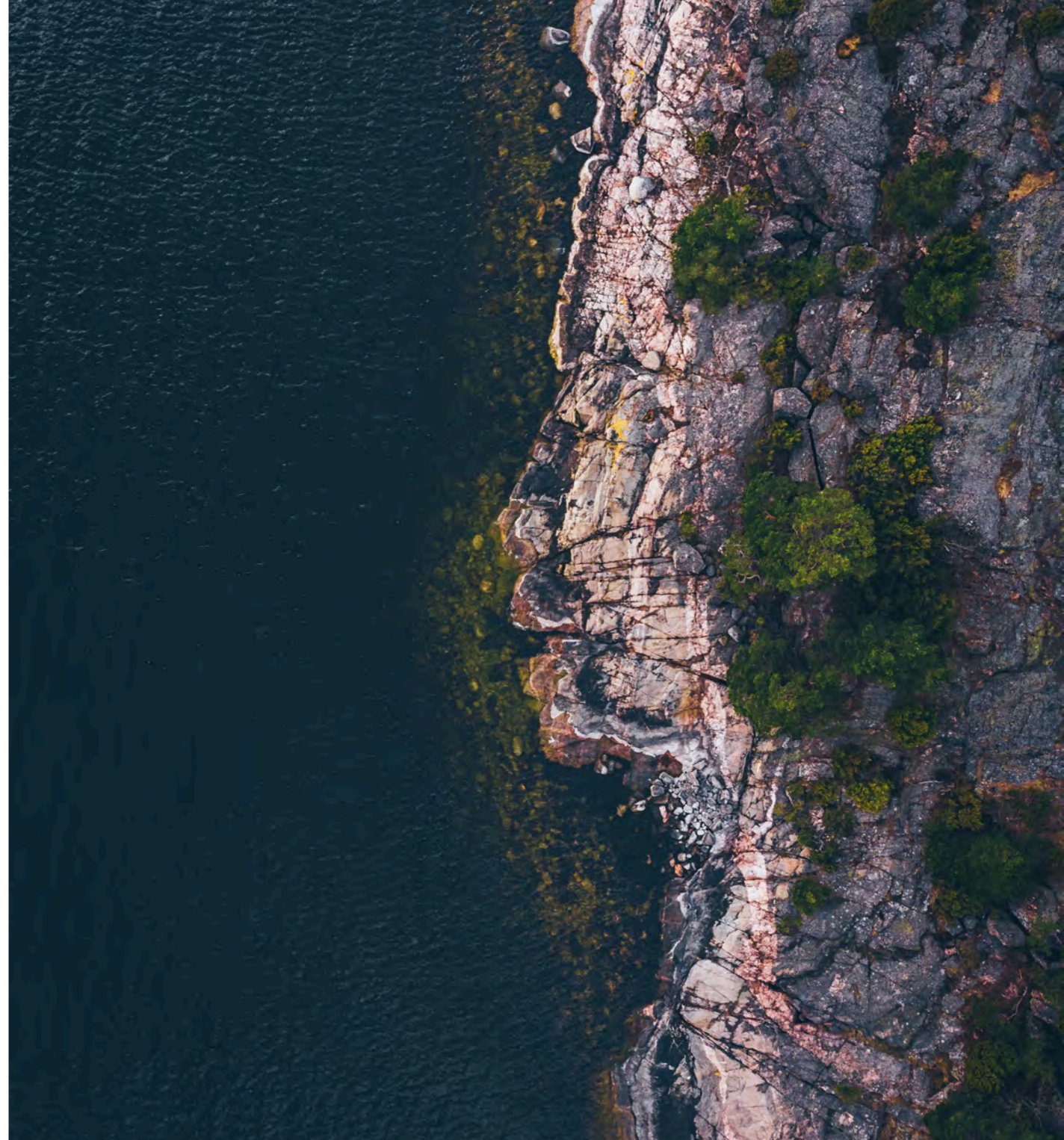
Process for call for proposal



For more information please see:
<https://www.vinnova.se/en/apply-for-funding/>

Strategic Innovation Programmes

- Strategic Innovation Programmes
- **Bioinnovation**
 - Introduction
 - Call for proposals
 - Granted projects
- RE:Source
- PiiA
- Production2030



BiInnovation

<https://www.bioinnovation.se/en/>

New biobased materials, products and services.

Mission to create the best conditions for the development of the Swedish biobased sector, and to create sustainable solutions for a global market.

Focusing on 3 Areas: Materials, Construction & Design, Chemicals & Energy

Goals

- Creating new bio-based materials, products and services.
- Create new forms of collaboration.
- To create systematic learning.
- Create the conditions for decision makers to make informed choices that support the transition to a bioeconomy.



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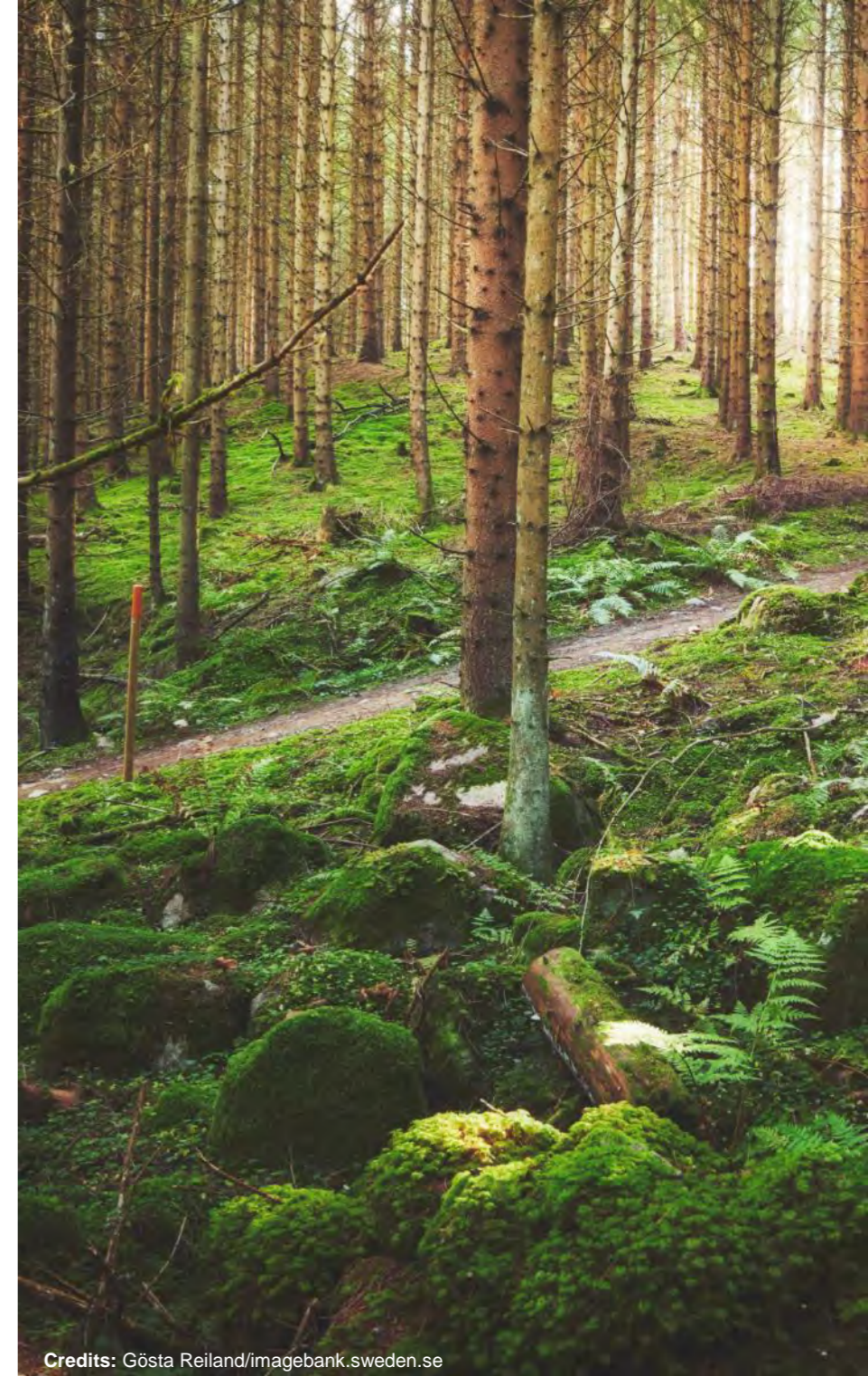
BiInnovation – Calls for proposal

Thematic call for tender (themes changed regularly)

- Material with biobased components designed for circularity
 - Support to projects developing either
 - new material solutions with biobased components, or
 - new processes for recycling and production of material solutions that contains biobased components.
 - Max grant: 6 MSEK
 - Last day of application: April 7, 2020
 - [Read more](#)

Tests of hypothesis (fast track for testing hypothesis to be done in 2 steps)

- Test of hypothesis step 1: original project with higher risk
 - Support to smaller research and innovation projects that focuses on a radical and innovative research question. Applications can be done at any chosen time during the year.
 - Max grant: 500 KSEK
 - Evaluation dates: March 5, 2020 and September 8, 2020
 - [Read more](#)



Credits: Gösta Reiland/imagebank.sweden.se

BiInnovation - Granted projects*

Renewable hydrophobing agents for fibreboards based on tall oil

- Test the hypothesis that the enhancement of water resistance and inter-fibre strength of cellulosic fibres by refined derivatives of crude tall oil can be transferred to commercial fibre-based products such as fibreboards (high density fibreboards, HDF).
- Organizations: Linnéuniversitetet, SunPine and IKEA Industry
- Budget: 1 MSEK
- [Read more](#)

Saw mill 4.0 Customized flexible saw mill production by integrating data driven models and decisions

- Link high-quality information of the wood-properties along the wood-value chain to increase the control that “the right wood material goes to the right customer and product”. This is simplified by linking 3D interior log-parameters to timber quality
- Organizations: Luleå tekniska universitet, Norra Skogsägarna, FinScan, Microtec
- Budget: 12 MSEK
- [Read more](#)

CelluPac – a biobased alternative to EPS for full scale production

- Development and optimization of a new sustainable material based on renewable resources that can replace fossil-based EPS (Expanded Polystyrene) in packaging materials.
- Organizations: LindePac AB, BillerudKorsnäs, Nouryon Pulb & Performance and MoRe Research Örnsköldsvik
- Budget: 9,2 MSEK
- [Read more](#)

MiniRefine – Demonstration of New Biotransport Fuel Manufacturing Processes

- This project intends to build up a new biotransport fuel manufacturing process demonstration capability, which closely mimics currently existing full scale oil refinery infrastructure based on continuous flow fixed bed reactor technology.
- Organizations: RISE Surface, Process & Formulation, Preem AB, Fortum Power and Heat Oy and Valmet Technologies Oy
- Budget: 14 MSEK
- [Read more](#)

Sustainable environmentally-friendly wood through tailor-made impregnation

- The aim of the project was to replace toxic copper-based wood impregnation with an environmentally-friendly wood impregnation.
- Organizations: Holmen, Nouryon, Optimera, RISE and WTT
- Budget: 1,2 MSEK
- [Read more](#)



Credits: Per Petersson/imagebank.sweden.se

* Non-exhaustive list

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RE:Source

<https://resource-sip.se/>

Research and innovation for sustainable material use. Focus on developing circular, resource effective material flows.

Focus on three themes: Sustainable offering, sustainable use, and sustainable circulation system.

Financing of two types of projects

- Call for proposals projects – focusing on innovations and solutions.
- Strategic projects - mapping of an area and surveying how its actors judges the need of research and innovation.

RE:Source Kompetens

- A database collecting research competence and making it public
- Possibility to publish assignments for participation in projects with financing from RE:Source



Credits: Helena Wahlman/imagebank.sweden.se

RE:Source – Calls for proposal

- **Currently no open calls for proposals (March 4, 2020)**
- Since the start of RE:Source in 2016 over 150 projects have been financed. On average the yearly grants awarded amount to 50 MSEK.

Last open call for proposal:

- **Sustainable plastics - step 2 (Closed)**
 - Support for projects that with a system perspective develops solutions that contribute to a environmentally more sustainable use of plastics,
 - E.g. ensure that plastics only is used where it gives environmental advantages compared to other materials, use the recycling of plastics, eliminate the leakage of plastics or additives to the eco systems.
 - Max grant: 3 MSEK
 - Last day of application: January 28, 2020
 - <https://resource-sip.se/projekt/utlysningar/>

RE:Source - Granted projects*

Test Arena for Future Recycling Technology

- The project aims to create a neutral test site for future recycling technology. The test site is a strategic meeting place and a physical arena for small and medium-sized companies to collaborate with Stena, each other and universities in order to test innovations.
- Organization: Stena Recycling International AB
- Budget: 1,5 MSEK
- [Read more](#)

Industrial relevant optimization and simulation tool for recycling processes with high levels of particles

- The project aims to develop virtual methods to simulate industrial recycling processes such as crushing, separation, milling, etc.
- Organization: Tetra Pak Processing Systems
- Budget: 2,9 MSEK
- [Read more](#)

Recycling of complicated plastic waste to chemicals and energy

- Many complex plastic wastes need to be lifted at least one step higher in the recycling hierarchy. The aim of this project is therefore to develop methods that enable circular material flows in society for the constituents of these complex wastes.
- Organization: RISE
- Budget: 2,2 MSEK
- [Read more](#)

Material recycling of plastic fractions via thermal transformation

- The project is an innovation project that aims to investigate the possibilities of recycling plastic fractions, which today is not recycled, by means of gasification.
- Organization: Chalmers
- Budget: 2,1 MSEK
- [Read more](#)

Demonstration of resued material in the building sector

- The aim of the project is to utilize reused construction materials during the construction of a new exhibition space at Onsala space observatory. Existing platforms and networks for reuse of construction material will be utilized to demonstrate their applicability.
- Organization: NCC Sverige
- Budget: 1,6 MSEK
- [Read more](#)

* Non-exhaustive list



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PiiA – Process Industrial IT and Automation

<http://sip-piia.se/en/>

PiiA is working to ensure that the Swedish process industry has the advanced IT and automation solutions it needs to be competitive.

Vision that Sweden 2022 is a leading nation for the development and use of innovative and competitive solutions in the field of process-industrial IT and automation.

Ways of working

- Funding for projects - PiiA coordinates funding for RDI projects in Sweden and initiates its own projects. The focus is IT and automotive solutions for the process industry.
- Skills-development - PiiA helps the Swedish process industry and its IT and automation suppliers meet their need for talent by coordinating skills-development activities.

Goals

- Help the industry, its IT and automation suppliers, and researchers in the sector to better manage ongoing change.
- Help the industry and its suppliers to out-perform their global competition in developing and implementing digital-based solutions.



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PiiA – Calls for proposal

- **Currently no open calls for proposal (March 4, 2020), next planned to spring 2020**
 - The program office is open for discussions of project ideas and constellations of partners
 - Contact: Peter Wallin, Program Manager PiiA, peter.wallin@sip-piia.se, 072-450 07 50
- Estimated 2 calls per for proposal per year
 - 10 calls for proposals since 2013, total project budget of 375 MSEK (government funding 137 MSEK)

Last open call for proposal:

- **Call 12: Research, development and innovation projects, as well as feasibility studies**
 - Max grant: 5 MSEK
 - Last day of application: November 21, 2019
 - Resulted in 8 approved projects with a total project budget of 30 MSEK, of which public financing was 14,9 MSEK

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Produktion2030

<https://produktion2030.se/en>

Produktion2030 aims to reinvigorate and strengthen Sweden's industrial competitiveness.

Through innovative know-how, strong partnerships and cutting edge technology, Produktion2030 will help Sweden remain an attractive country for production.

Ways of working

- Projects – calls for proposals
- Support for SMEs – workshops and seminars
- Education – Collaboration between industry and academia.
- Internationalization and analysis

Expert groups

- Resource effective production
- Flexible production
- Virtual production development
- The human in the production system
- Circular production systems and maintenance
- Integrated product- and production development



Credits: Per Pixel Petersson/imagebank.sweden.se

Produktion2030 – Calls for proposal

- **Currently no open call for proposal (March 4th 2020)**
- Estimated 1-2 calls per for proposal per year
- *10 calls for proposals since 2013, total project budget of 375 MSEK (government funding 137 MSEK)*

Last open call for proposal:

- **Call 12, Summer 2019: Digitalization of value chains for manufacturing industry**
 - Max grant: 500 KSEK
 - Last day of application: April 24, 2019

Produktion2030 - Granted projects*

A digital twin to support sustainable and available production as a service

- The DT-SAPS project has the ambitious goal of advancing the industrial and scientific state of the art by developing an innovative, flexible and versatile digital twin model (software platform) for improved predictive maintenance decision support to support service business models.
- Area: Circular production systems and maintenance
- Organizations: ORU, UmU, Saab Aeronautics, MinProc, Epiroc, Alkit
- [Read more](#)

Sensible Value Chain: Material Flows, Roles and Circular Economy – SCARCE

- SCARCE will investigate the needs, possibilities and obstacles in value chains up- and down-stream from a focal SME company.
- Area: Resource effective Production
- Organizations: RISE, Chalmers, KTH, Bror Tonsjö, Scania, AFRY, Siemens, QBIM, Stena Metall, Parker Hannifin
- [Read more](#)

* Non-exhaustive list

LOVIS – Production Logistics Visibility

- Exploring and demonstrating two production logistics visibility applications; (1) an intra-site real-time visualisation system for material management including dynamic synchronisation, takt and resource planning, and (2) a supply visibility system for dynamic status and prediction of supply network status.
- Area: Resource effective production
- Organizations: KTH, LU, Scania, AstraZeneca, Odette
- [Read more](#)

VISION – Automated quality inspection in assembly lines through low-cost vision system

- Development of a low-cost, high-performing vision system for automated quality inspections in assembly lines based on cheap hardware and state-of-the art machine learning algorithms for real-time image processing.
- Area: Virtual production development
- Organizations: Volvo, Volvo Cars, Jonsac, IDC, RISE, Jönköping University, Skövde University
- [Read more](#)

Performance prediction of a biobased product - laminated veneer products (LVP)

- Development and validation of a fully integrated design optimization process where both the product performance and the producibility of the product is taken into account in the design stage.
- Area: Integrated product and production development
- Organizations: RISE, LNU, Kinnarps, Bendinggroup, AkzoNobel Adhesives
- [Read more](#)



Credits: Simon Paulin/imagebank.sweden.se