

VINN EXCELLENCE CENTER

Investing in competitive research & innovation milieus



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Long-term investment to develop centres of excellence in research and innovation

Milieus that attract international R&D investment and have effective innovation processes are becoming increasingly important in bringing about sustainable growth and meet the global competitiveness.

VINNOVA, in partnership with industry and academia, is funding VINN Excellence Centers at a selected number of universities. These milieus will build up internationally competitive research environments and networks for needs-driven and multidisciplinary research. New knowledge, processes and innovative technology emerging through the venture will lead to new products and services through a close collaboration between academia, industry and the public sector.

The VINN Excellence Center programme currently funds 18 milieus in which nine educational establishments collaborate with a hundred or so companies and public organisations. VINNOVA is staking up to 7 million euro in each centre and the other co-players are investing at least the same amount over up to a ten year period. With the newly agreed centres, this gives the programme a total scope of approx. 500 million euro. VINN Excellence Center is a continuation and enhancement of the Competence Centre Programme ended 2006, a 10-year effort which led to the formation of 28 competence centres within priority research areas. In addition to new products and services, this venture led to the training of 500 new PhDs, a great many of whom now work in Swedish industry.



BIOTECHNOLOGY & BETTER HEALTH

Swedish researchers and companies are leading the international mapping of human proteins. This provides a unique starting point for a VINN Excellence Center which will produce new drugs and protein-based technologies. Another centre venture will develop individually adapted prostheses and implants with the aim of increasing the quality of life for people needing everything from heart surgery to new joints and teeth.

Companies in partnership with researchers will also enable the development and design of new biomaterials with capabilities such as drug-bearing. Within the health field, investments are also being made in a centre concentrating on the role of nutrition in various diseases. New foods will be produced here which prevent such things as diabetes.



TELECOMMUNICATIONS & INNOVATIVE SERVICES

IT and wireless communication are strong Swedish areas. A number of centre ventures are assembling researchers in companies to develop new antennae, high frequency components and tomorrow's mobile telecommunication and radar technology systems. Other VINN Excellence Centers will produce small wireless sensors. These can monitor everything from industrial processes to patients' health or be included in intelligent packaging.

The objective of other ventures is the development of innovative services. One centre will develop the next generation of video conferencing which will be sufficiently user-friendly to pose a serious alternative to travelling. Mobile phones and other wireless equipment will also have new services and business models directly adapted to our modern mobile lifestyle.



NEW MATERIALS & PRODUCTION METHODS

Revolutionary new tailor-made materials are the objective of a number of VINN Excellence Centers. This includes technology to make thin-film ceramics for highly durable tools or new electronic components.

Companies in Sweden are also leaders in the utilisation of forest raw materials. Further research will yield better paper products and totally new renewable materials. Efforts are also under way to provide quicker and more target-orientated materials development, such as new simulator tools for industrial production which can contribute to cost-effective product development. New research will also help companies to lead the development towards increasingly long-term system responsibility for technical solutions.



MODERN WORKING LIFE & SUSTAINABLE TRANSPORT

Goods and people are becoming increasingly mobile in a global market. Research within a number of centre programmes will provide more efficient transport with less environmental impact. New developments include environmentally friendly vehicles for road and rail. Other efforts towards sustainable transport include development of public transport in consultation with companies and the public sector, plus the production of new tools to help companies master their increasingly complex logistics.

A free flow of people and ideas is also the basis of a well-functioning working life. Research in partnership with companies and public bodies within a VINN Excellence Center will show how workplaces can be made to promote mobility and contribute to innovations and learning.

BIOTECHNOLOGY & BETTER HEALTH

AlbaNova Center for Protein Technology

Center Director: Amelie Eriksson Karlström/Per-Åke Nygren/
Mathias Uhlén, amelie@biotech.kth.se, Royal Institute of Technology

Antidiabetic Food Centre

Center Director: Inger Björck, inger.bjorck@ffsc.lu.se
Lund University

BIOMATCELL – Biomaterials and Cell Therapy

Center Director: Jukka Lausmaa/Peter Thomsen,
jukka.lausmaa@sp.se, University of Gothenburg

Supramolecular Biomaterials Structure Dynamics and Properties

Center Director: Magnus Nydén, mnyden@chalmers.se
Chalmers University of Technology

TELECOMMUNICATIONS & INNOVATIVE SERVICES

Centre for Sustainable Communications

Center Director: Mattias Höjer, hojer@kth.se
Royal Institute of Technology

CHASE – Chalmers Antenna Systems Excellence Center

Center Director: Staffan Sjödin, staffan.sjodin@cit.chalmers.se
Chalmers University of Technology

GigaHertz Centre

Center Director: Jan Grahn, jan.grahn@mc2.chalmers.se
Chalmers University of Technology

Mobile Life Centre

Center Director: Oskar Juhlin, oskarj@tii.se
Stockholm University

iPack Center – Ubiquitous Intelligence in Paper and Packaging

Center Director: Li-Rong Zheng, lrzheng@imit.kth.se
Royal Institute of Technology

WISENET – Uppsala Center for Wireless Sensor Networks

Center Director: Per Gunningberg, per.gunningberg@it.uu.se
Uppsala University

NEW MATERIALS & PRODUCTION METHODS

BiMaC-Innovation

Center Director: Tom Lindström, toml@fpirc.kth.se
Royal Institute of Technology

Faste Laboratory – Centre for Functional Product Innovation

Center Director: Lennart Karlsson, lennart.karlsson@ltu.se
Luleå University of Technology

FunMat – Functional Nanoscale Materials

Center Director: Lars Hultman, larhu@ifm.liu.se
Linköping University

HERO-M – Hierarchic Engineering of Industrial Materials

Center Director: John Ågren, john@mse.kth.se
Royal Institute of Technology

Wingquist Laboratory Excellence Centre for

Efficient Product Realization

Center Director: Rikard Söderberg, rikard.soderberg@me.chalmers.se
Chalmers University of Technology

MODERN WORKING LIFE & SUSTAINABLE TRANSPORT

Centre for ECO2 Vehicle Design

Center Director: Peter Göransson pege@kth.se
Royal Institute of Technology

HELIX – Managing Mobility for Learning, Health and Innovation

Center Director: Per-Erik Ellström, perel@ibv.liu.se
Linköping University

SAMOT – The Service and Market Oriented Transport Research Group

Center Director: Margareta Friman, margareta.friman@kau.se
Karlstad University

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VINNOVA is Sweden's innovation agency. We develop Sweden's innovation capacity for sustainable growth and aim to increase the competitiveness of Swedish researchers and companies. Some 200 people work at VINNOVA and we invest 220 million euro in new and ongoing projects each year.

VERKET FÖR INNOVATIONSSYSTEM – SWEDISH GOVERNMENTAL AGENCY FOR INNOVATION SYSTEMS

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