

Vinnväxt

*A programme renewing and
moving Sweden ahead*

Regional growth through dynamic innovation systems

VINNOVA

Regional Growth

Maintaining competitiveness in an increasingly knowledge-based economy requires rapid renewal. Growth is brought about by innovation backed up by cutting-edge expertise, the exchange of knowledge, mutual learning and an interaction between companies, researchers and the political/public sector (the Triple Helix).

Sweden's capacity for innovation is crucial to the nation's economic growth and prosperity. It is therefore vital to develop research and innovation milieus that can compete internationally.

Thus in 2001, Vinnova started a programme called "Vinnväxt – Regional Growth through Dynamic Innovation Systems". Since that time, Vinnväxt has issued five calls for proposals. The latest of these was finalised in 2016, with the selection of three new Vinnväxt winners.



INNOVATION SYSTEM The term "innovation system" refers to the system of organisations, individuals and rules and regulations under which the creation, dissemination and innovative exploitation of technology and other fields of knowledge takes place.

When the interaction between the various actors works well, valuable new knowledge is generated and quickly put into practice. This creates a basis for innovation and attracts investment.

PROXIMITY BETWEEN PLAYERS Geographical proximity between lots of different actors brings competitive advantages in co-operation, learning, access to competence and expertise, business development and collaboration. Regions that realise this and have capacity for renewal can greatly enhance their competitive edge. However, this requires collaboration between companies, researchers, and the political/public sector, which must all work proactively towards a joint strategic concept.

INNOVATION SYSTEM, cluster and smart specialization The Vinnväxt "Innovation system" approach is working to develop an institutional infrastructure that supports innovation within the renewed industrial structure of the region.

To qualify as a Vinnväxt winner, the proposed strategic idea must renew the traditional strengths and clusters of its region. It must address them by forming new combinations with other sectors, such as the IT infrastructure, service management etc.

Emerging areas of business and growth like these are consistent with the EU's *innovation policy concept, Smart specialisation*.

Research/knowledge used more quickly and more wisely

More cohesive and effective innovation systems

Companies that are better equipped for future challenges

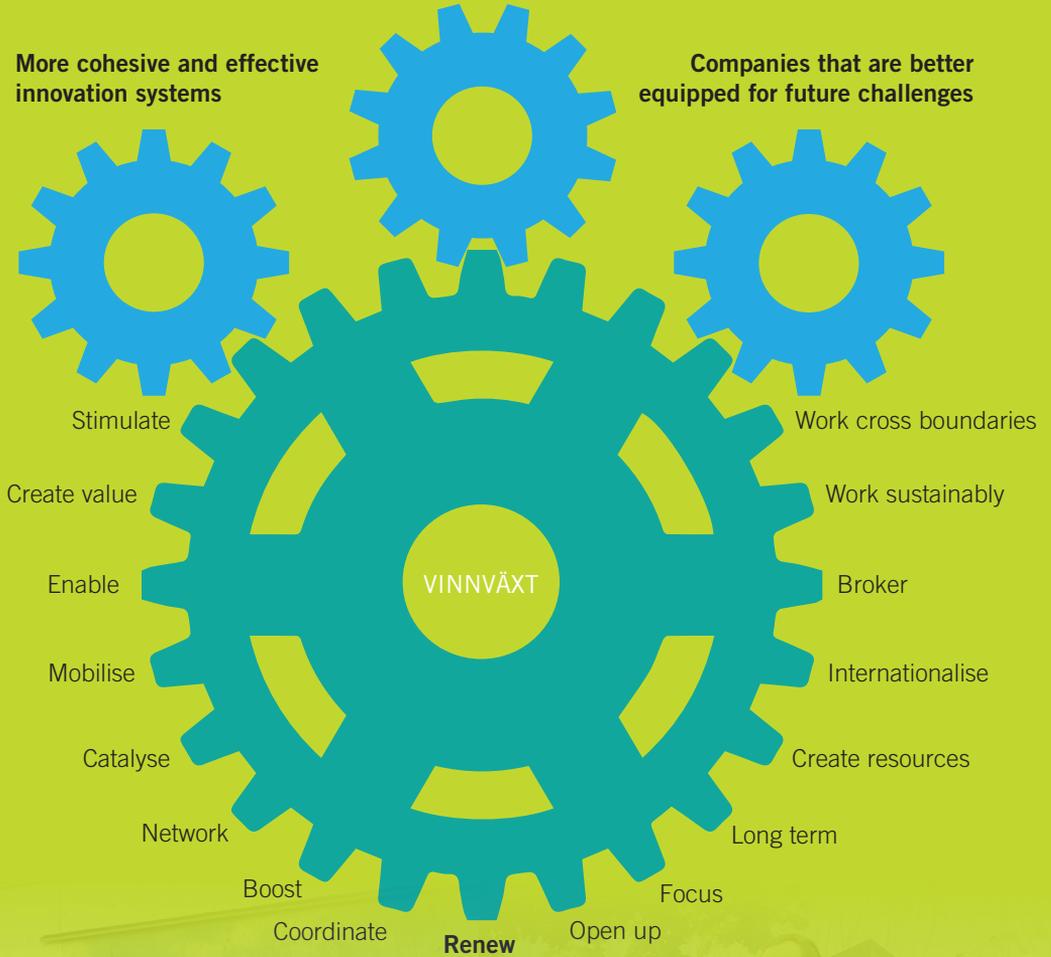


Photo: Elisabeth Flygt (Smart Housing Småland)

EN BO I FRAMMEN
O KAN STAPLA TILL ETT PUNKT-
E TRÄ ÄR LÄT
ET GLAS GÖR GENHETEN LJUS.
ANSPORTERAR PÅ EN VANLIG
KAS PÅ FABRIK SMART HOUSING
IDUSTRI, ARKITEKTUR, FORSKNING
DR. VILL DU VETA MER OM
OCH FRAMTIDENS B
G.NU



A competition

Vinnväxt's mission is to promote sustainable regional growth by developing internationally competitive research and innovation milieus in specific growth fields. Vinnväxt also wants to catalyse a broader transformational change in society, towards innovation-driven sustainable growth in the Swedish regions. This will be achieved by funding institutional development and needs-driven R&D to strengthen the cutting-edge competence of the various milieus. There will also be strategic efforts aimed at developing innovation systems.

Some 230 initiatives have applied for funding under Vinnväxt's five calls. Of these, 18 regions ("functional" regions) have been declared winners. These 18 regional actors share a number of common features, including: the same strategic concept; a strong research and innovation milieu; strong regional leadership; the active participation of the public, private and research sectors. Perhaps the most important factor, however, is that all appear to have excellent growth potential.

A unique aspect of Vinnväxt is its long-term outlook. Vinnova will provide the Vinnväxt winners with funds of up to EUR 1 million per year for 10 years. Winning regions must contribute at least the same amount. Furthermore, winners are offered "process support" in the form of seminars, coaching, follow-up and experience-sharing. Vinnväxt winners are evaluated every three years by international experts to ensure compliance with Vinnova's terms.

VINNVÄXT IN BRIEF

- Vinnväxt is a competition which rewards the best submissions.
- A limited number of growth initiatives receive up to EUR 1 million per year.
- The focus is on a region's particular areas of strength.
- Active participation of companies, researchers and political/public sector (Triple Helix)
- Open innovation.
- Funding provided for 10 years possibly longer. Sometimes up to 16 years.
- Various support activities (seminars, coaching, networking, experience-sharing etc.)
- It is expected that the long-term results of renewal will be seen in the region.
- A transition from traditional business support to "infrastructure" for innovation and sustainable growth is expected to emerge within the ten years.
- From 2013, more flexible financing over time for each Vinnväxt initiative.
- From 2013, stronger focus on sustainable development, green growth and societal benefits.

SMART TEXTILES SHOWROOM



In Smart Textiles showroom prototypes from various projects are displayed. Photo: Anna Sigge

About the winners

ProcessIT Innovations, Luleå/Umeå

ProcessIT Innovations is working to satisfy the future needs of the mining, steel, manufacturing and pulp and paper industries for new services and products based on information and communications technology (ICT). The initiative involves collaboration between the processing/manufacturing industries, the universities of Umeå and Luleå and ICT companies in Västerbotten and Norrbotten. Their activities are intended to generate significant growth through co-ordinated and extensive efforts by all the region's stakeholders, including the public actors.

www.processitinnovations.se

Smart Textiles, Sjuhärad

Smart Textiles develops textile innovations that improve people's everyday lives and benefit the industry, the healthcare sector and the environment. By connecting research with companies, institutions and the public sector a wide range of expertise is established. Examples of projects are clothes that monitors your health or measures your movements and technology that makes it possible to recycle fabrics for reuse. With over 450 research and company driven projects since the foundation of the Initiative in 2006, Smart Textiles has not only become a motor for the textile industry in Sweden but an important player on the international arena.

www.smarttextiles.se

Fiber Optic Valley, Hudiksvall

Fiber Optic Valley is Sweden's leading cluster in Broadband infrastructure and Sensor technology. There are some 60 members and partners operating in Hudiksvall/Gävle/Sundsvall and headquarters in Hudiksvall.

The cluster's activities could be summarised as finding financing whilst uniting people with other people, needs with solutions and problems with ideas, or:

- a wide global network
- a test environment for technical and behavioral studies
- a unique meeting place for innovators, entrepreneurs and researchers
- expertise to take your idea further
- help finding financing

Since becoming a Vinnväxt winner in 2004, Fiber Optic Valley has moved on from being a local initiative in Hudiksvall to become a global actor.

www.fiberopticvalley.com

Uppsala BIO

Uppsala BIO works to enhance the long-term competitiveness and growth of the life science sector in the region. Fifty members, including companies, two universities, the university hospital, and local government representatives support programmes and activities. Our network organisation coordinates the integration of regional and national innovation support systems.

The BIO-X Open innovation support programme defines a needs-based theme and then calls for applications from academia, SMEs and public institutions such as hospitals and health-related research institutes. BIO-X also coordinates and integrates the regional and national innovation support systems. BIO-X Industry is a platform that facilitates collaboration between projects/early start-ups and established industry by matching project needs with potential partners, capital and support.

www.uppsalabio.com

Robotdalen, Mälardalen

Robotdalen is an enabler of commercial success of robot innovations. By bringing together the industry, academia and public sector Robotdalen develops, implements and commercialises new robot solutions for industry, service and health care. Robotdalen has built a strong network of key players from the industry, academia and public sector that take an active part in reaching the



A 4wd electric all terrain vehicle from Zoomability AB. Photo: Hanna Loev

vision; to become an internationally acclaimed innovation environment enabling commercial success of new robot solutions.

www.robotdalen.se

Visual Sweden, Östergötland

Visual Sweden is a regional growth and innovation initiative with its core in the county of Östergötland, with focus on visualisation, image analysis and simulation. The major areas of application are industrial development and production, medical imaging and community planning. Central actors are Linköping University, Region Östergötland, Linköping and Norrköping municipalities, national governmental institutions and administrations based in the region and some 50 small, medium, and large companies.

www.visualsweden.com

Peak Innovation, Åre-Östersund

Through Peak Innovation, the Åre-Östersund region will become an internationally leading milieu for research, innovation and business development in winter sports, tourism and outdoor pursuits. Customer-led development will produce new trans-sectorial systems of services and products. Parallel services and technologies will be developed in winter sports, tourism and outdoor pursuits.

This venture is based upon the region's strong tourism, events and winter sports sectors as well as its international competence centres for the tourist industry (ETOUR) and winter sports (Swedish Winter Sports Research Centre).

www.peakinnovation.se

Triple Steelix 2.0, Bergslagen

Bergslagen's steel industry is a world leader in its niche. On this basis, a cluster of companies within the region has grown up within the steelmaking, manufacturing, processing and knowledge-based services. In partnership with the universities, they are focusing on the development of expertise in materials, steel processing, industrial IT, environment and energy efficiency. Triple Steelix comprises several major companies such as Sandvik, Outokumpu, Ovako and SSAB.

www.triplesteelix.com

Smart Housing Småland, Växjö/Kalmar/Jönköping

Smart Housing long-term vision, of being positioned as an leading international node for housing and sustainable built environment, is reinforced through its consolidation of strategic global alliances in research, education and market development.

Smart Housing's vision will be realised through innovation work based on existing areas of strength

in wood and glass. It will also be based on open innovation and user-centred design methods aimed at meeting the future housing needs of consumers and advancing the architectural quality of the built environment.

There is a singular emphasis on methods of innovation and business development in small and medium enterprises, since these dominate the relevant industries.

www.smarthousing.nu

Geo Life Region/ Future Position X, Gävleborg

Future Position X (FPX) is advancing the Gävleborg region as Europe's GIS (Geographic Information System) capital and an internationally recognised region for using geo-technologies to implement health and wellbeing; the first Geo Life Region. The initiative is centred around services and technologies aimed at better understanding how location affects our life and health. It also focuses on how to drive forward the innovation of new technologies and services to support personal health and wellbeing.

Another important focus is innovative new solutions to make smart cities into places of health and wellbeing in daily life. The Geo Life innovation system combines research and expertise in geographic information and the power of location with health and wellbeing knowledge and smart city concepts. It thereby creates innovative solutions which foster health and wellbeing in society. The Geo Life Region is centred on the Gävleborg Region. Some 10 strong knowledge and innovation hubs around the world are linked to Gävleborg Geo Life Region through the Global Spatial Network.

www.fpx.se

Paper Province 2.0, Värmland

Paper Province 2.0 aims to be a leading competence node in Europe within ten years, as well as an exemplar of the forest-based bio-economy. This will be achieved through the development of a large-scale demonstrator emphasising utilisation and a systemic approach.

From a service perspective, new products and services will be realised and then industrialised

based on new value chains within the forestry sector, but also within other sectors. Transnational networking will provide access to a wide range of skills and companies in various industries. It is very important for needs and users to be included at this stage.

The implementation will be structured into three approaches: 1) evaluation of production units and the potential for developing waste products from a service perspective; 2) a systemic approach which links forest production units and other actors in the region more closely, thereby allowing new and existing services and processes to be developed; 3) using Living Labs etc. to gather information about new technologies and new ways of fostering innovation.

www.paperprovince.com

Urban Magma, Skåne

Urban Magma is an international innovation and growth environment that drives the development of urban supply systems with the aim of contributing to increase Swedish exports.

Urban Magma's vision is that southern Sweden should become an internationally recognised region in terms of cutting edge development of products and services for urban technology supply systems dealing with energy, water and waste. A place that attracts foreign companies and investors to the region and that creates growth in our environmental technology companies.

Urban Magma facilitates for municipalities, companies and academia to co-formulate the city's needs. Businesses are then matched against the needs for development of products and services. The urban development areas of Hyllie in Malmö, Brunnsög in Lund, H+ in Helsingborg and Vilans strandängar in Kristianstad all act as engines, with their ambitious sustainability goals. Here, innovative solutions are both tested and implemented.

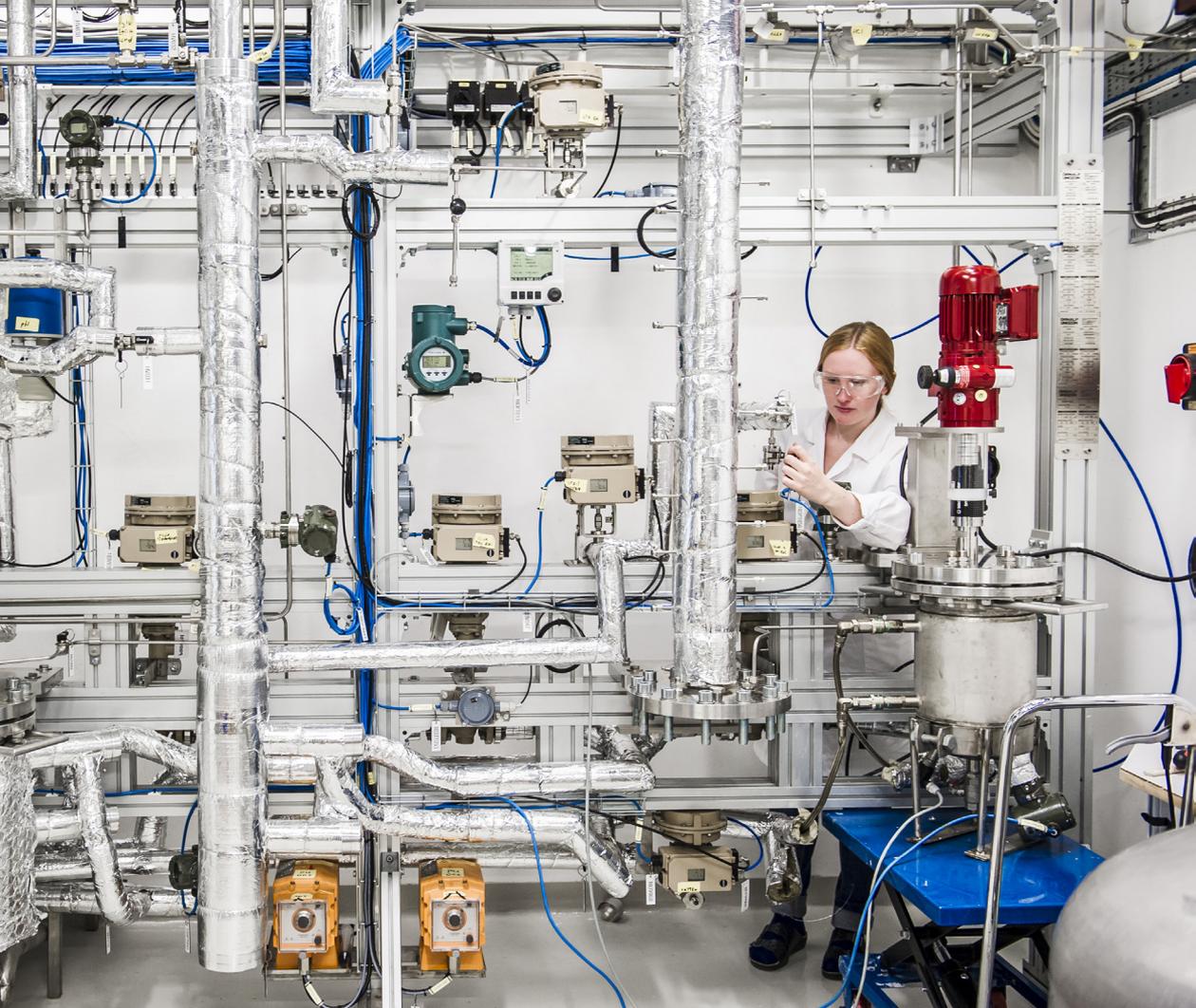
www.urbanmagma.se

Automation Region, Mälardalen

Automation Region is an innovation platform where small and medium-sized enterprises, large corporations, academia and the public sector

Vinnväxt winners





Test and prototype lab at SP Processum, Örnsköldsvik. Photo: Jonas Forsberg

collaborate in interdisciplinary projects. New technology, sustainable business models and innovative capacity is developed in constellations based on people's diversity, skills and ability to work together.

The project builds on the established cluster initiative Automation Region, bringing together over 120 dedicated member organizations of which about 100 are automation companies of varying size. Mälardalen University, with leading research in areas such as embedded systems and future energy systems, is the host organization for Automation Region.

www.automationregion.com

Biorefinery of the Future (Framtidens Bioraffinaderi), Örnsköldsvik-Umeå

The Biorefinery of the Future will be a leading creative initiative for the development of biorefineries based on forest-based raw materials and energy crops. Sustainable growth will be created through the development of new knowledge and of bio-based green products, chemicals and fuels plus new energy solutions from industrial process streams. The Örnsköldsvik area has a strong tradition in the forestry and process industries and some major manufacturing companies.

www.processum.se

Examples of impacts

POLICIES

- Provides policymakers with new tools for dialogue and collaboration in the form of innovative approaches.
- Puts regions on the map.



COMPANIES

- Companies in Vinnväxt environments develop better than others.
- Clearly strengthens collaboration between universities and research institutes.
- Expands R&D capacity, business and product development.



RESEARCH

- Vinnväxt environments attract leading researchers.
- Contributes to developing research centres and environments at universities.
- Contributes to increased quality of and allocation of resources to research.



THE SYSTEM

- Vinnväxt has made triple helix a well-known concept throughout Sweden.
- Vinnväxt has strengthened regional innovation systems and regional support structures.

THE CONTEXT

- Vinnväxt initiatives have taken significant steps in becoming internationally competitive and sustainable innovation environments.

Source: Effektanalys av Vinnväxt-programmet, Kontigo AB, Vinnova Analys VA 2016:03

“We can see several examples where collaboration between Vinnväxt initiatives and academia has contributed to the development of academic research environments and centres. While maintaining their own, independent positions, they are also associated with the Vinnväxt initiative.”



Vinnova develops Sweden's innovation capacity for sustainable growth

Vinnväxt is a programme with the aim to promote sustainable growth in regions. Vinnväxt's vision is to contribute to the Swedish innovation capacity by supporting the emergence of internationally attractive research and innovation environments in specific growth areas in regions. Effective regional innovation systems are speeding up the industrial and business renewal towards an innovation-led sustainable growth. For more information about the Vinnväxt programme please visit vinnova.se/vinnvaxt.



Vinnova – strengthening Sweden's innovativeness

POST: Vinnova SE-101 58 Stockholm Sweden OFFICE: Mäster Samuelsgatan 56
+46 8 473 30 00 vinnova@vinnova.se vinnova.se