

An International Innovation strategy for Skåne

2012-2020

Innovation is the entrepreneurial process that gives value to an idea.

Why an International Innovation Strategy for Skåne?

In a time of great global challenges, major demographic changes and increased global competition, knowledge and innovative capability are crucial factors in maintaining Europe's international competitiveness and our living conditions.

The need for research skills is constantly growing and Skåne can offer excellence, advanced knowledge and lots of ideas in many areas. But in spite of this, we have insufficient capacity for innovation compared to other countries. This is also a European problem. Especially important is the capacity of today's economy for innovation in the future. Increased innovativeness for growth therefore occupies a key position in the Europe 2020 strategy, the future Swedish innovation strategy and an International Innovation Strategy for Skåne.

The EU 2020 strategy states that the greatest challenge for the EU and the Member States is to establish a more strategic approach to innovation. An approach where *innovation* is included as an overall political objective and where all instruments, measures and financing facilities are designed to ensure that the initiatives are coherent and mutually reinforcing.

Our strategy aims to be bold, inclusive and strategically unified to reflect what the Commission describes in "Innovation Union". The strategy should be a tool for development and growth in Skåne. The aim is for the strategy to be a matter of concern to stakeholders in Sweden, Europe and the rest of the world. The ultimate goal of the strategy is inclusive, smart and sustainable growth.

This "International Innovation Strategy for Skåne" is the main document, and is in three parts. The strategy describes the WHAT in the form of a vision, what is needed to realise this vision and six overarching strategies. A number of other documents describe the WHY in the form of more in-depth analyses, evaluations and background reports¹. The last part deals with specifics and describes the WHAT and the WHO in the form of an action plan.

The analytical material, the strategy itself and the action plan reflect the interplay between the regional, national and international dimensions. The documents are owned by the Skåne Research and Innovation Council (FIRS) and Sounding Board for Innovation in Skåne (SIS). These are a strategic council and a forum in which universities, institutes of technology, municipalities, arenas, industry, the public sector and student representatives can work together to support innovation and create the conditions for growth. FIRS and SIS are examples of governance bodies.

The innovation strategy forms a strategic basis for the national innovation strategy that the Government intends to adopt in 2012. It is also one of the common foundations for a future research and innovation proposal and the OECD study being conducted in Skåne in 2011-2012. When these foundations are in place, the strategy and the action plan will be reviewed.

¹<http://www.skane.se/sv/Webbplatser/Naringsliv-Skane-samlingsnod/Naringsliv-Skane/Innovationssystem/Konferens-7-nov-Skans-innovationskraft/>

Situation analysis

In the last few years, a lot of work has been done in Skåne to develop the innovation system and enhance innovativeness in the longer term. This work has been carried out by the stakeholders in the region, VINNOVA and the Swedish Agency for Economic and Regional Growth (Tillväxtverket).

It includes “Skåne's Innovation Capacity – a situation analysis”, produced in 2009 as a self-assessment to obtain a clearer picture of the innovation system. A network analysis, a functional analysis and an international peer review were also conducted, and these also form the basis for action plans and ongoing work.

Among other things, these studies show that relatively substantial resources are invested in the early stages to pick up ideas that have the potential to become new enterprises, but that the support structure for businesses is weak. The situation analysis has also found that the structure for picking up service innovations is poor, that access to risk capital is too limited and that the need for a systematic environmental and market analysis is great but not satisfied. The analysis also shows that better coordination of the efforts of the various players is needed, along with increased internationalisation of the supporting bodies.

Vision

Europe's most innovative² region in 2020

By means of regional, national and international collaboration, Skåne can develop into an attractive internal innovation environment. The foundation of the strategy is substantial investment in reinforcing Skåne's innovation culture and capacity. A culture which grows out of the creativity, openness and diversity that we have in Skåne today.

In this location and in this environment, the aim is to develop a unique capability within a number of innovation areas, largely driven by global challenges and a global market. The strategy should support skills development within the innovation areas where Skåne has the greatest potential to stimulate real innovation. Today, we see great potential in the open global innovation areas of ‘personal health’ and ‘smart, sustainable cities/regions’. In these innovation areas, an international capability will be developed by stimulating knowledge-based open innovation arenas to engage in international collaboration. The approach will be broad-based and inclusive and will encourage new initiatives. The development of new innovation areas will be stimulated by efforts to participate in international networks and future studies, for example.

The development of knowledge-based open innovation arenas within fields like materials science, food, media, mobile communications, tourism, logistics, packaging, cleantech, city training and life sciences will provide tools to create the innovations of the future.

² *Innovation is the entrepreneurial process that gives value to an idea; it is also an attitude of mind.*

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When a new open international ecosystem for innovation comes to be designed, skills like coordination, cooperation and the ability to take collective decisions will become all the more important. This change demands new knowledge and skills that can lend impetus to the strategy. The demand for innovations will be stimulated, and the underlying conditions such as the regulatory framework and working culture need to be improved. Other areas that need to be developed are the support functions for innovation and the ability to communicate the innovation strategy, the requirements and the results. Realising the vision and implementing the strategy may take the form of a shared, effective and concrete action plan.

Prerequisites for realising the vision

Global challenges

In the last few years, the major global challenges have become more and more important. It is clear that these challenges cannot be addressed by any individual enterprise or university or by individual countries, but that they demand effective interplay between policy-makers, industry and research. In a global perspective, new and qualified demands are therefore being placed on our capabilities.

The need to find solutions to major new social issues has given us the insight that public-sector bodies must play a driving role by setting challenging requirements for solutions that do not exist today. Public-sector players such as Skåne Regional Council (Region Skåne) and Skåne municipalities will take a proactive part in things like the healthcare system and climate and energy issues and support the development of system innovations through innovation procurement, for example.

The global challenges represent a huge market. Heavy investment in global challenges will create the conditions for reaching new customers in new markets.

The aim is therefore to develop the interplay between industry, universities, the public sector and other stakeholders in society. Our goal is for the strategy to play a leading international role when it comes to offering attractive solutions to major challenges such as a sustainable long-term environment, a sustainable energy supply, an ageing population and effective integration.

Skåne - an attractive international location and innovation environment

Skåne is an international location with a global stream of people, skills, innovations, goods and services. This global stream cannot be controlled, only attracted. The strategy is therefore designed to strengthen our international attractiveness.

To make the region more attractive, we need the ability to attract workers into industry and the public sector, bring more students into higher education and attract researchers. The interplay is complex and it is not just a matter of offering good facilities for study and research. It is at least as important to offer attractive housing and living conditions for people in the region and to create safe working environments. There must be a stimulating cultural life, with openness, tolerance and diversity among people in Skåne.

A strong innovation culture

Innovations only come about where the right conditions exist. The strategy needs to create these conditions and stimulate every individual in Skåne to develop his or her creativity and entrepreneurship.

A strong innovation culture is a prerequisite if Skåne is to be perceived as an attractive international location and innovation environment. Major investments need to be made to develop and reinforce the region's innovation culture. These investments should strengthen and develop the culture that already exists while also supporting the development of new cultures such as social innovations and social entrepreneurship.

An innovation culture is built up by fostering an innovative attitude. The aim is to foster an innovative attitude that recognises and develops the capacity for innovation in every person in Skåne.

Capability

A strong capacity for innovation must stimulate and respect diversity and variation and an entrepreneurial ability to learn rather than change. Great systemic innovativeness will enhance international competitiveness and generate growth.

Innovation cannot be planned or controlled in the same way as production, for example. Solutions quite often come about by chance or as a by-product of other solutions. It is often more appropriate to work with innovation models rather than systems that give the impression that something can be planned when this is only partly true. The innovation models for the region need to be based on openness, broad participation and respect for the skills and methods of the different people involved. The models need to be dynamic so they can be easily adapted to changing external conditions. The ability to change direction at short notice is essential.

Cooperation

Regional, national and international cooperation are essential if Skåne is to develop its potential and become an internationally attractive location. Cooperation implies trust and openness. Great efforts need to be made to build trust and strong relationships within Skåne and at the national and international level.

A strong capacity for innovation is increasingly based on the ability to cooperate. So far, many players have largely focused on what is referred to in the theory as systems optimisation and excellence. Investments in innovation have been mainly based on the idea of supporting enterprises via cluster initiatives, existing sectors and areas of strength, and whole supply chains.

We now see a great global need and a large market in areas relating to personal health, sustainable cities and an ageing population. The need for an effective capacity for innovation has therefore increased dramatically. In practice this means that we must support the emergence of new areas that are not yet defined but which may emerge in cross-fertilization between different sectors or scientific disciplines as the needs arise. Demand-driven innovation based on markets and customers will grow increasingly in importance.

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The emerging development of existing cluster initiatives focusing on excellence and optimisation into knowledge-based open innovation arenas focusing on open innovation will be very important.

Entrepreneurship

Entrepreneurship is the driving force behind the process that generates innovations. We need to stimulate work on entrepreneurship in schools by developing students' curiosity, creativity and initiative. It is important to support the specific skills that are needed to start up and run a business. Inner drive and motivation are important for entrepreneurial learning at all ages, from pre-school to adult education.

Entrepreneurial learning within the education system, stimulating attitudes, skills and behaviour to foster entrepreneurship, are one way of preparing students for the challenges they face in today's society.

The lack of entrepreneurs is one of our major challenges. It is therefore important to have an open attitude and encourage everybody's initiative and entrepreneurship, in all areas of society.

Research

Issues relating to research infrastructure need to be raised. One particular issue is the lack of any research institutes in the region. Skåne and Blekinge have no research institutes, which could hamper cooperation with industry. We therefore need to work actively to attract institutes to Skåne. Structural changes have caused many companies to move their research departments away from Sweden just as the ever-increasing rate of change demands new, faster and closer models for cooperation between industry and the academic world.

Small and medium-sized enterprises need more active cooperation with universities and institutes of technology. New ways of increasing access to knowledge need to be developed. The focus should be on speed as well as access. Small knowledge-intensive companies generally find it easy to work with academic institutions but for the lack of resources, while other companies experience a cultural gap that demands completely new ways of working in order to bridge it. Even today there is qualified development work being done on the research environments to be created by the establishment of MAXLab IV, ESS and Ideon Medicion Village, for example.

Skills and training

For both industry and public administration, higher education is at least as relevant as research. We can expect to see increased competition for well-trained staff both at the national level and perhaps above all across the Öresund region, where Denmark is already experiencing a manpower shortage in some key areas.

Some initiatives put forward, especially in EU 2020, which have close links to the skills issue are: *"Innovation Union"*, *"Youth on the Move"*, *"An industrial policy for the globalisation era"* and *"An agenda for new skills and jobs"*. Here, the municipalities have an important role to play, not just in training but in linking industry, training and research.

We believe that strategic efforts to create good conditions for an effective regional labour market and a sustainable long-term supply of skills are a vital priority area.

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Finance

An important element in any innovation process is that there should be financial instruments to support the whole supply chain. The need is obvious in the early phases, but it continues into the later growth phase also. The innovation system in Skåne is heavily focused on these early phases. New financing solutions may need to be developed.

But the need for financing in the growth/expansion phase outstrips the supply. We therefore see a great need to adapt the financial instruments to the needs of different companies and industries. The requirements for risk capital and exit strategies differ between life sciences, manufacturing industry, culture, the service sector and social innovations, for example. We will therefore lay particular stress on making the financial instruments more flexible in order to match and address the diversity that exists in Skåne.

Strategies to strengthen Skåne's innovation capacity

Six overall strategies have been identified to strengthen Skåne's innovation capacity. The strategies are not listed in any particular order, but are dependent on each other to be fully effective.

1. Develop systemic leadership

To strengthen innovation capacity in Skåne, we need to enhance systemic leadership. A systemic leadership community is one of the top-priority elements of the strategy. An important part of this work is to raise the profile of the entire system, creating a greater understanding of a systems perspective, and to formulate objectives for the joint development work. As a first step, we have formed the Skåne Research and Innovation Council (FIRS) and the Sounding Board for Innovation in Skåne (SIS), a cooperative forum for innovativeness in Skåne.

Systemic leadership demands openness, transparency and well-developed functions for environmental and market analysis.

2. Broaden the sense of what innovation is - include more people

A strong innovation capacity requires a broader view of innovation and an inclusive approach. We also need the ability to engage many parties and resources that can contribute and act to promote shared growth.

The approach to innovation needs to be widened to strengthen innovation capacity throughout the region. New working methods and new views of innovation need to be encouraged. These could entail new approaches to social innovations, for example, or creative industries, services and experiences.

3. Streamlining the support structure for innovation

By strengthening the shared whole, promoting openness and making the total resources visible, we have the potential to streamline and strengthen the roles within the support structure for innovation. Financing, control and monitoring should be developed where necessary. We will be open to the idea of changing old ways of working and questioning the value of our organisations and activities. We need to get better at providing entrepreneurs

with the support and the conditions they need in order to succeed. This is a key area and a vital part of the continuing work on an action plan.

4. Developing new innovative areas and creative environments

Strengthening the ability to identify and develop new “blank sheet” innovation areas is one of the success factors for systems innovation and increased innovation capacity in Skåne. There is great potential for synergy in the intersections between the region’s different strengths, and also between different industries and areas of knowledge.

To generate growth in new innovation areas, we need new ways of working and new skills. Systems innovation is one of these. Systems innovation is a top-to-bottom attitude for policy-makers, universities, industry, customers and users. We will join forces to create the conditions for systems innovations and drive the innovation work forward together.

Efforts to attract and strengthen creative capital in the region are already under way. These efforts are very important and should therefore be developed. They need to be coordinated with other efforts so that they reinforce each other. We must launch a project to identify how we can develop new innovative environments based on new needs.

5. Developing international cooperation

To generate growth in the globalised marketplace, we need to strengthen our international competitiveness. Institutes of technology and universities, companies and even public bodies need to develop ways of strengthening their international competitiveness. It is essential to gain access to international expertise if we are to create a unique innovative capability. Knowledge production in the region must therefore be implemented together with the best in the world. We should therefore work together to develop stronger and larger international networks. The open innovation arenas should be stimulated to develop more strategic alliances and strengthen international links. We must work to develop different forms of collaboration with other regions, not least the Öresund region.

Environmental monitoring and analysis have greatly increased in complexity with advancing globalisation, accelerating rates of change and practically free access to information. We must improve the joint use of resources and share the information obtained more than we do today. The immediate aim is to bring about a more extensive exchange of knowledge.

6. Strengthening innovation capacity in our existing industry and public-sector activities

Sweden has traditionally seen close cooperation between certain parts of industry and the academic world, in the pharmaceutical and automotive industries and the ICT sector, for example. An ever-increasing rate of development demands new, faster and closer models for cooperation between industry and the academic world. Small and medium-sized enterprises need more active cooperation with institutes of technology to strengthen their innovation capacity. There has been a shortage of effective ways of working together with companies. Strong relationships and new methods that focus on strengthening innovation capacity within our existing industry, and cooperation between large and small companies are important and play a crucial role. The public sector has a major role to play in creating

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the conditions for innovation within its own activities, and also as a customer and instigator of forums and potential synergies.

Innovations are not only generated from new knowledge; they often represent a new application of existing knowledge. We therefore need to stimulate new combinations of existing knowledge and skills. This especially true in the border areas between large, medium-sized and small enterprises.

We have identified a need to improve skills in sales and marketing, particularly in small and medium-sized enterprises. An initiative to enhance these capabilities should therefore be implemented.

Implementation

As noted in the introduction, the specific details of common goals and approaches need to be compiled into an action plan.

This action plan should describe the coordination and joint action between regional, national and international players, where the challenge, the problem and the innovation process are collectively owned. No single player own the whole question, problem or issue. Nor do any of them alone have the ability to assemble all the knowledge. Innovativeness is therefore created when different players cooperate and take collective decisions by way of interaction in networks or more fixed constellations. This is how we can create system innovations and become more efficient.

Action plan

An international action plan should be produced. This action plan should be partly based on the notion of a programme in which national stakeholders like VINNOVA and the Swedish Agency for Economic and Regional Growth, along with the Government, are invited to discussions on the definition. Experience and lessons learnt from national programmes such as VINNVÄXT, the Swedish Agency for Economic and Regional Growth cluster programme and BSR Stars should be taken into account. The aim is for the international action plan to form part of the national innovation strategy and make a regular contribution to the Government's research and innovation proposals. We should discuss the possibility of treating the action plan as a 'flagship' of national and European innovation strategy.

The international action plan is jointly owned by the Research and Innovation Council for Skåne (FIRS) and Sounding Board for Innovation in Skåne (SIS). It must be open, transparent and flexible and inspire people to act. Anyone who wants to must of course be able to join in and support such an important initiative for the region.