



Building the Innovative Capacity in Skåne

**Reflections and recommendations from the
international peer review 2009-09-14—15**

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0. Summary

Region Skåne, with the support of VINNOVA, The Swedish Governmental Agency for Innovation Systems, is undertaking a long-term development work to strengthen the innovative capacity in the region. As part of this a peer review of a) the regional innovation system and b) the Action Plan to strengthen the innovation capacity has been completed by a panel of international experts.¹ The recommendations from the peer team is based on the Situation Analysis and Action Plan for the innovation capacity presented by Region Skåne and meetings with triple helix stakeholders September 14th and 15th 2009

In general the peer group see a need to strengthen the links between vision and strategy and to create a mission statement for regional innovation system in Skåne with a clear time frame for the implementation of the strategy. The innovation system in Skåne is in many ways mature with many of the needed elements and competences and with a plethora of intermediaries. We recommend the region to focus the forthcoming work mainly on realigning the resources already at hand rather than establishing new organisations and intermediaries

To **develop a systemic governance** there is a need to establish an Skåne Innovation Council, which is representative of the diverse stakeholders in the region. The Innovation Council will serve both as a convener, broker and a collective voice for the region on innovation and entrepreneurship and should support communication (public, internationally) and internal networking as a platform for enhancing global networks. The Innovation Council should be governed by a board with representation of leading persons from public sector and the business sector where the business community has a leading voice. For the day to day operations a Chief Executive Officer, hired by the board of directors for the council managing the activities of the Council. Region Skåne has an important role for establishing the Skåne Innovation Council.

An important task for the Council is to strengthen **regional intelligence and the collective voice of the region**. To communicate the region's story, in terms of assets, efforts and progress, regionally, nationally and internationally is vital. Both for the positioning and branding of the region and to create a common regional identity. This task should be separated from the business intelligence needed for the internationalisation of companies and cluster initiatives and should be based on triple helix-collaboration. The peer group don't see the need for a regional intelligence function. We rather recommend to use the resources you already have by more effective forms for dissemination and sharing of information.

¹ The peer review team consisted of Jos Evertsen, Hans Henrik Fischer, Frances Fortuin, Tracey Grose, Peter Kempinsky, Jan-Anders Månson, Onno Omta, Sylvia Schwaag Serger and Madeline Smith.

There is an immediate need to present a clear and including view on innovation based on a market and user perspective and a clear definition on service innovation and servicisation of technology driven innovation. To develop **a broader innovation approach** it's also important to define the skills, management competence and internationalisation needed for service innovations and to develop mindset and clear operations among intermediaries on service innovation.

There is a need to establish a long term staged based funding in the innovation and intermediary system for implementing the strategy and move away from project based funding which leads to fragmentation of the support structure. **To strengthen the innovation support structure** it's also important to draw the practical conclusions of the mapping and analysis done. It's equally important to set clear objectives and measuring the implementation of the Action Plan and to implement a MAPT-orientation (Market-Application-Product-Technology) in the support structure. There is also a need to develop easy entrance and transparency to the system and to develop business mentor networks for qualitative support services. The structure of intermediaries must reflect and support the diversity of the region in order to fully release the potential of Skåne

To constantly develop the innovation capacity in Skåne it's important **to identify gaps and develop measures to close these gaps**. To be able to do this and to support a systemic learning there is a need to develop a regional marketing and communication strategy and to strengthen the business and user driven perspective based on a need analysis. There is also a need to identify gaps and needs also related to traditional industries and companies and develop the interfaces/platforms for finding solutions to business needs and supporting up-scaling. A strategic leadership on innovation and entrepreneurship could be strengthened by using business leaders as entrepreneurs in residence and visiting experts in higher education.

Some of the important gaps in the innovation capacity identified in the peer review has to do with **the internalization of the innovation system** in Skåne. There is a clear need for improving firms and clusters internationalization competencies and linkages and. To achieve this a international communication strategy for the region is important as well as activities supporting the building of international networks (regional alumni, diaspora) and by working with and mobilizing the existing international competences and resources in the region. The international marketing and sales competence among the intermediaries and the growth companies needs to be developed and promoted. There is also a need to support the opportunities to growth in the Öresund region and leverage that for the development of the Skåne region.

To create and support creative and innovative environments there is a need both for vertical (sectoral or technological) and horizontal (cross-sectoral and cross-disciplinary) approaches. This could be achieved through activities supporting cross disciplinarity in cluster policy and initiatives from a business perspective and create informal meeting places between entrepreneurs, clusters and industry.

1. Introduction

Strengthen the innovative capacity in Skåne – a background

Retaining competitiveness in an increasingly knowledge-based economy requires constant renewal and innovation. Growth is created by innovations based on peak expertise, exchange of knowledge and mutual learning, as well as the impact of triple helix constellations.

The ability to innovate is a decisive factor for a country's or region's economic growth and prosperity. Despite major investments, in international terms, in research and development, there are few profitable innovations in Sweden compared with other countries. Growth in the form of employment and added value are relatively weak and Skåne is largely following this pattern.

This fact, as well as the intake of new knowledge within fields such as "user driven" or "open innovation" and developed cluster and innovation policy, along with changes within the different areas of strength within the regions, mean that the innovation system needs to be constantly developed, both on a national and regional level.

Long-term work has therefore commenced to develop the regional innovation system and strengthen the innovative power of business in Skåne. By innovation system, we mean players within research, business and politics/the public sector who together generate, exchange and use new technology and new knowledge in order to create sustainable growth through new products, services and processes.

The peer review as part of a strategic development process

Region Skåne, with the support of VINNOVA – The Swedish Governmental Agency for Innovation Systems – is therefore undertaking a long-term development work to strengthen the innovative capacity in the region.

As part of the work, a peer review has been completed. The aim was to gain:

- An assessment of the status of the regional innovation system
- Opportunities for bench learning with other regions
- Scope for quality-assuring the strategy and action plan produced for continued work to strengthen the innovative capacity in Skåne

The peer review – the team and the process

The international peer review was carried out in Skåne with a site visit September 14th and 15th of September 2009. The site visit was arranged in connection with the international conference on innovation “Innovation in Mind” held in Lund 15th to 17th of September.

For the peer review international as well as national experts on innovation and regional growth with qualified experience from industry, academia and the public sector were selected. The group for the peer review of the innovation capacity in Skåne consisted of:

- Jos Evertsen: Former Senior Policy Advisor in Forfás, the Irish national policy advisory board for enterprise and science. Now at the Innovation Centre at the Tallaght Institute of Technology
- Hans Henrik Fischer: Former Director Corporate Strategy & Strategy Deployment, Sauer-Danfoss, Danmark, now independent consultant in regional and cluster development.
- Frances Fortuin: Senior project manager responsible for the Innovation Expertise Centre of Food Valley Organization, a cluster of over 90 agrifood companies in Wageningen, Holland. Researcher at Wageningen University.
- Tracey Grose: Vice president Strategy and Research, Collaborative Economics. Working with innovation and regional growth for regions both in USA and Europe, for example Silicon Valley.
- Peter Kempinsky: CEO and senior advisor, FBA Holding AB with long experience from innovation and entrepreneurship in regional development processes, clusters and innovation systems (process leader).
- Jan-Anders Månson: Professor at EPFL (École Polytechnique Fédérale Lausanne) and in charge of the innovation strategy initiatives as well as projects on sports performance.
- Onno Omta: Professor in business administration and innovation management at Wageningen University, Holland. Research on innovation management and entrepreneurship in the life sciences and agrifood.
- Sylvia Schwaag Serger: Manager and Head of Division for International Collaboration and Networks at Vinnova. Formerly Senior Advisor at The Swedish Institute for Growth Policy Studies
- Madeline Smith: Head of Innovation, EKOS Ltd, Scotland. Formerly at Scottish Enterprise working with the development and evaluation of clusters and innovation systems

The review was carried out through a dialog between the team and stakeholders and intermediaries in the innovation system in Skåne. Meetings were held Monday 14th as well as Tuesday 15th of September in Malmö and Lund. A programme for the site visit is attached to the memo. In total the peer group met about 60 persons from industry, university, the innovation intermediaries and the public sector, both regional and national.

The peer review is also based on information and analysis presented by Region Skåne, mainly

- *Skåne's Innovation Capacity – A Situation Analysis* – a presentation and analysis of the assets and climate for innovation in as well as the support structure for innovation in the region
- *Skåne's Innovation Capacity – An action plan for a more innovative Skåne* – presents the strategy and action plan for the further development of the Innovative Capacity in Skåne

To allow for a deeper understanding of the innovative capacity in Skåne Region Skåne also provided the peer review team with additional material.

The observations and recommendations from the group are based on information available in these sources and presented at the short site visit and are in no way comprehensive. The subsequent observations and recommendations are based on discussions with in the peer group. The memo presented by the peer group reflects the wide range of experiences and expertise in the group and also that the members in the team might have differing views on how the innovation capacity in Skåne is supported in the most effective way.

2. Reflections and recommendations

Region Skåne has presented their conclusions regarding the Innovation Capacity in Skåne in the Situation Analysis and the Action Plan. The work done with the Analysis and the Action Plan is impressive with valid conclusions for the further development of the Innovation Capacity in Skåne. The peer group would like to underline that the work done by Region Skåne gives a good foundation for the work ahead.

As general conclusions from the Situation Analysis, the Action Plan and the meetings with stakeholders the peer group like to emphasize:

- the need to **strengthen the links between vision and strategy** and to create a mission statement for regional Innovation System in Skåne with a clear time frame for the realisation and implementation of the strategy
- that the Innovation System in Skåne in many ways is mature with many of the needed elements and competences at hand. There is also a plethora of intermediaries supporting the Innovation Capacity in the region. We recommend the region to **focus the work on realigning the resources already at hand** rather than establishing new organisations and intermediaries

Our recommendations and conclusions is based on the understanding of the Innovation Capacity in Skåne expressed in the SWOT-analysis below.

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Strong Cluster Initiatives with management and industry involvement • Trust and collaboration in the regional IS • Commitment from Region Skåne's politicians • Support system for (university based) innovative start ups • Focus on new areas for innovation • Strong R&D 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Industry and business leaders not involved in strategy and action plan for innovation • Lack of support for innovation in established industries and lack of collaboration with SMEs • Unclear roles and mandates in the innovation support structure leading to lack of focus and prioritising • Innovation support structure not integrated and transparent and under- financed • Unclear concept for service and user driven innovation • Lack of international orientation and integration in the Öresund region • Not enough focus on up scaling , growth and international competitiveness • Lack of venture capital for the innovation growth phase • Lack of expertise in (regional, international) sales & marketing for entrepreneurs and innovators • Collaboration and integration within University - Business School, Entrepreneurship with other (technology)areas
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Öresund region - an attractive growth region • Strengthen co-operation on commercialisation between universitites in the region • Skåne is a boosting region that provides an attractive living environment with intercultural assets • Region Skåne as pilot region with a mandate for regional development 	<p>THREATS</p> <ul style="list-style-type: none"> • Differences between the different parts in Skåne complicates and integrated vision on the innovation support structure • Without empowerment no implementation of the innovation policy in Skåne • Lack of overarching policy regarding the innovation support structure in Sweden • Lack of access to policy and financial networks in Stockholm

The Action Plan identifies seven strategic themes for the future work to develop the innovative capacity of Skåne. We have chosen to structure our conclusions

and recommendations according to these seven strategic themes to facilitate an evaluation and implementation of our recommendations. The seven themes are:

1. Develop systemic governance
2. Strengthen collective opinion forming
3. A broader innovation approach
4. Strengthen and streamline the existing innovation support structure
5. Identify and develop gaps
6. Strengthen the regional innovation system through
7. internationalisation
8. Create and support creative and innovative environments

1. Develop Systemic Governance

In many ways, the Region Skåne already represents a highly developed innovation system. The region is home to world class research and companies, it has invested in scores of support structures for entrepreneurs and industry cluster initiatives, and in a forward looking way, it has invested in modern fields of study in higher education. Areas of weakness in the region's system which have surfaced over the course of the review process include the lack of collaborative research between industry and universities, the lack of coordination among the business support organizations, and the lack of communication about the region's efforts within the region, within the country and abroad. The current proposed strategy recognizes the need for raising results in the region by improving the coordination among the region's efforts and players including the region's business community.

The creation of the **Skåne Innovation Council**, which is representative of the diverse stakeholders in the region can serve multiple important purposes. The Innovation Council can serve as the region's convener in bringing people together to discuss issues impacting the region, the region's broker in building vital connections between people and organizations with different roles and across the globe, and the region's collective voice for both informational and marketing purposes (see Strategy 2 for details on communication). In particular the Innovation Council can demonstrate how all the actors in the innovation system are committed to delivery against the strategy. The establishment of an Innovation Council does not require creating an entirely new entity and should not require extensive new public investment in overhead costs. Instead, its formation should be based on the realignment of funding and roles with an emphasis on linking and aligning what already exists. It can be part of a public administrative body or integrated with a local university or private non profit organization; however, it is strongly advised that it be governed by a multidisciplinary board of directors in which local business has a strong voice.

In order to ensure the broad perspective of the efforts of the Innovation Council, it should be governed by a *diverse board of directors* with members reflecting multiple disciplines and faces of the community (i.e. "triple helix"). Most importantly, the board must have **strong representation from the business com-**

munity. The region's business leaders are typically most aware of current labor market shifts and changes in the global market place. At least half the board should come from the region's business community and represent a mix of the region's major industries. These business leaders should be leaders who understand the global market and share the vision for improving Skåne's role in it. The rest of the board should consist of a few high level public administrators who are representative of the regional level (e.g. county) and municipal level as well as a mix of the region's intermediary organizations. In addition, the region's research community should be represented and include people from government research centers as well as the universities.

For the day to day operations, a Chief Executive Officer, hired by the board of directors, would manage the activities of the Innovation Council.

In addition, a steering committee also representative of the "triple helix" model and consisting of a few of the members of the board of directors and others could be formed to help direct the development of messaging materials and progress measuring documents. For example, the region may want to consider producing a regional document similar to the *Index of Silicon Valley* which charts the region's progress in a format that is accessible to broad audiences. The steering committee is answerable to the Board but takes on tasks too detailed for the Board.

The Innovation Council serves as Convener, Broker and Collective Voice:

Convener: Provides a unique "space" for diverse stakeholders from the private and public sectors to get to know each other informally, to maintain an ongoing dialogue, to come together around important community issues, and to devise collaborative action. Importantly they will set the overall strategy with key objectives to be achieved for the region.

Broker: Supports the efforts of all stakeholders by linking them together to better leverage the strengths of each. Developing the relationships between the research community and business will increase collaborative research activities that can boost the competitiveness of the region's businesses. Developing the relationships between the business community and educators in general will ensure that the graduates from the region are equipped with the necessary skills to meet the needs of the region's companies. The Innovation Council serves as the platform for networking across the many support organizations and services (i.e. 51 intermediaries) in order to improve the efficiency of service delivery to the community (e.g. One Stop Shop/No Wrong Door) and to better leverage the public investment in these efforts. Finally, the Innovation Council serves as a broker between the region's stakeholders and the international community of companies, researchers, and entrepreneurs.

Collective Voice: Communicates the region's story, namely its assets, efforts and progress within the region, within the country especially to Stockholm and abroad. This role is informative for the local area but also serves as an important marketing tool for potential investors and for the development of the re-

gion’s global networks (see Strategy 2 for details), as well as demonstrating commitment across the partners.

In establishing a Skåne Innovation Council **Region Skåne has an important role** to take the lead and capatilize on the momentum and actively involving the business community and the universities in the Region.

SKÅNE INNOVATION COUNCIL		
ROLES	PARTIES INVOLVED	PURPOSES
CONVENER	All Stakeholders	<ul style="list-style-type: none"> • Informal networking (e.g. monthly Innovators’ Breakfast) • Community dialogue and Community action
BROKER	Research ↔ Business/Entrepreneurs	<ul style="list-style-type: none"> • Provide science translators to facilitate interaction • Support avenues for collaborative research with focus on industry application • Offer platform for dialogue on how to incentivize professors and researchers to collaborate with region’s companies
	Educators ↔ Business/Entrepreneurs	<ul style="list-style-type: none"> • Support efforts to identify guest professors from business • Provide links for student internships with local business
	Business/Entrepreneurs ↻	<ul style="list-style-type: none"> • Build network of business leader mentors • Support linkages across cluster initiatives
	Support Organizations ↔ Business/Entrepreneurs	<ul style="list-style-type: none"> • Provide networking role for one-stop shop (not managerial role) for people seeking business support services
	Support Organizations ↻	<ul style="list-style-type: none"> • Streamline service delivery • Reduce replication • Realign resources
	Region’s Stakeholders ↔ International Community of Researchers, Companies and Entrepreneurs	<ul style="list-style-type: none"> • Build network with Swedish talent and companies located abroad • Create linkages with other global innovation centers
COLLECTIVE VOICE	Board of Directors	<ul style="list-style-type: none"> • Develop mission statement for Skåne Innovation Council
	Steering Committee	<ul style="list-style-type: none"> • Develop branding and outreach to region, Sweden (especially Stockholm) and internationally • Develop means for measuring progress • Contract additional research on region

2. Strengthen Collective Opinion Forming

The second strategy addressing communications in the region relates directly to Strategy 1, Systemic Governance. **This strategy could be renamed: Strengthen Regional Intelligence and the Collective Voice of the Region.**

The *Skåne Innovation Council* will serve multiple roles as regional convener and broker and will also be the primary source for articulating a collective voice for the region that represents the interests of the region's research, business and broader communities. In addition, beyond communication to an outside audience, there is an opportunity to share information and intelligence more effectively across the partners. **We dont see the need to establish a separate regional intelligence service function.** Instead this could be achieved by using the resources already at hand in the region by more effective forms for dissemination and sharing of information.

The meetings with the intermediaries showed a need for a **stronger market/customer and sales focus on innovation and entrepreneurship.** This will in itself put focus on market analysis and business intelligence for specific industries and products. There is also a need for business intelligence and communication with focus on the region and its innovative capacity and competitiveness. Therefore we see a need to **separate business intelligence and regional intelligence strategy**

It is of utmost value to communicate the region's story. The region needs to develop means to describe its assets, efforts and progress to the region, to the rest of the country, especially to Stockholm, and to the rest of the world. Locally, communication outreach serves an informational role, such as for the delivery of services, but also serves to cultivate a regional identity. Outside the region, communication serves as an important marketing tool for potential investors and for the development of the region's global networks. Because of the region's important role in the broader Oresund Region, branding and messaging can be developed to reflect both.

The board of directors of the Innovation Council will lead the visioning process for defining the Council's mission statement and govern the operations of the Council's activities. Some members (with more availability) will also serve on the steering committee for messaging and in so doing, serve as liaisons to the board. Just like the board of directors, **this committee, focussing on the positioning and branding of the region, should consist of people from the research, business and public sectors (i.e. "triple helix" model).** Working with the Council CEO, the messaging steering committee will help direct the development of the regional branding and messaging materials and events.

In the case of a regional progress document, the release of the document can be combined with a public event that would present the key findings and stimulate community dialogue around burning issues. For example, at the completion of the annual *Index of Silicon Valley*, the sponsoring organization (Joint Venture: Silicon Valley Network) holds the State of the Valley Conference where the Index is presented and panel discussions on key topics take place with audience participation.

Regional Communications Activities:

Branding: The development of a regional brand can provide a major step in formulating a regional identity within the region and for communicating outside the region. For example, the Karlsruhe Technology Region (<http://www.technologiregion-karlsruhe.de/en>) has accomplished positioning itself as leading region in technology development that also offers high quality of life.

Website: A website for the Skåne Innovation Council would be a powerful tool for presenting the region, announcing community events, and providing a virtual one-stop shop for business services, research grant opportunities, and internship and job openings. Examples include the Massachusetts Technology Collaborative (<http://www.masstech.org/>) and Joint Venture: Silicon Valley Network (www.jointventure.org).

Regional Progress Document: For the purpose of tracking the region's progress and providing a substantive marketing medium, the region may want to consider producing a document similar to the *Index of Silicon Valley* or *Massachusetts Innovation Index* which chart the progress of a region in a format that is accessible to broad audiences. Such a document could illustrate how the region is progressing in terms of demographic changes as well as shifts in industrial mix and quality of life. It could also be used for comparing with other regions. Most importantly, once clear objectives are set for the regional innovation strategy, the progress document can show achievement towards these overarching goals.

Public Events: The Innovation Council can hold community events at the release of key studies. The purpose of this is to engage the community in the issues that impact the region and maintain a "space" for public dialogue.

Additional Research: The Skåne Innovation Council provides a natural body for commissioning regional research on an ad hoc basis that offers broad benefit to the region's diverse stakeholders. Research could include economic forecasting in the region or deeper analyses that relates directly to specific activities or clusters in the region.

3. A broader innovation approach

An immediate need to present a clear and inclusive view on innovation based on a market and user perspective – innovation is not just technology transfer: The Skåne region has set itself an ambitious target of becoming the world's most innovative region by 2020. In achieving such a vision, it aims to increase societal well-being as well as prosperity. To translate innovation into economic wealth and socio-economic benefits, it needs to respond to market and user needs, the pull rather than push phenomenon. Such transformation often requires a significant shift in mindsets, traditions and *modi operandi*, often challenging the core of collective determination and commitment.

Innovation is a creative process that requires not only the above qualities but also transparency and inclusiveness of stakeholders and interest groups in order to obtain buy-in from the business community, knowledge providers, public

sector and society at large. To improve general well-being and wealth across the whole of the Skåne region no privileged or hallowed ground exists for any one group or stakeholder, but a common and regional team effort towards a common vision, mission and strategy will be paramount.

Innovation in the Skåne region has to date been largely technology driven. The innovation policy and practice should clearly show that technology driven innovation is necessary but not sufficient. Support must extend to non technology areas. Although efforts have commenced to diversify into innovation in services, the servicisation of technology based innovation is a third element that may benefit a modern innovation portfolio.

The need for a clear definition of service innovation and servicisation of technology driven innovation: Innovation is mostly an incremental process rather than reliant on major breakthroughs. Communicating this message to the Skåne region and managing expectation may encourage buy-in and ownership of the process and its output.

To strengthen buy-in from the wider stakeholder community there needs to be a good understanding and appreciation of innovation. To communicate the innovation vision for the Skåne region's it may be necessary to *define and articulate what innovation, innovation in services and the servicisation of technological innovation stands for*. Acknowledging that official definitions have been established at official levels (OECD, European Commission, National Government) these terms and associated processes need to be expressed in the context of what the Skåne region's needs in developing its resources and the socio-economic environment as set out in its vision for 2020.

The need to define the skills, management competence and internationalisation needed for service innovations: In defining various forms of innovation, *drivers such as knowledge base, skills, entrepreneurship, management competencies, internationalisation and intermediary support, may need to be examined*.

The business and knowledge diversity across the Skåne region is quite significant, with the dominance of high-tech knowledge providers and industry located in the Lund-Malmö area. While these stakeholders are primary sources for innovation, it is paramount that their dominance is translated into leadership and mentorship. Assuming such roles, they can drive the development of innovation equally across all areas of the Skåne region, thereby strengthening and empowering other players in the wider Skåne region team.

There appears to be a need to increase both the innovation capacity and capability within companies. This applies in particular to the growth and scalability phase of start-up to the medium sized SME phase (50+ employees).

The variety of skills that required for the technology driven sectors is reasonably well established. However the skill sets required in the services sector are rela-

tively 'new' and are particularly broad. This places new demands on individuals, employers, educational institutions, training organisations, and representative bodies.

Services, of their nature, demand certain types of skills:

Generic skills – This base skill set is required in any creative and innovation environment and ranges from personal and interpersonal skills. These skills sets need to be a natural part of the education system or need to be supplemented through life-long learning options. Proficiency in literacy, numeracy, team-working, communication, customer-service, information processing, problem-solving, planning and organising play a key role especially in services.

Science, engineering and technology skills – Competence in science, engineering and technology (SET) provides a skills base for both technology driven innovation and innovation in services. Within the EU25, some 53 million people with third-level SET qualifications are employed in services.

Humanities and social science skills – Graduates in these disciplines are equipped with a range of competencies that are particularly important in the areas of business administration and governance, sales & marketing, as well as exporting and globalisation.

Hybrid skills – This applies to individuals who can combine both technical and business skills. Their ability to combine discipline-specific technical knowledge with entrepreneurial skills and an ability to think creatively will be in increasing demand in the future.

Skills in innovation, creativity and design – These skills are essential for success in business, and in services business in particular.

In both the Netherlands and Ireland, the Innovation Voucher scheme was successfully introduced to stimulate not only collaboration between enterprise and knowledge providers, but also to encourage innovation capability building in enterprises. Collaboration with knowledge providers has contributed to changing mind-sets in small companies and helped to identify and internalise innovation in the company. The adoption of the principles of such scheme can be used to selectively stimulate a variety of activities such as innovation capability & capacity, market & marketing needs research, globalisation etc. promoting company growth and internationalisation. Other initiatives that support the short-term placement of graduates in companies can act as a further catalyst to internalising innovation, strengthening the company's skills base and may lead to employment of the placement graduate.

The need to develop mindset and clear operations among intermediaries on service innovation: There is a wide range of intermediaries whose aim it is to provide assistance and support to the development and growth of the companies. Whilst their services have evolved in response to specific needs, there is now an opportunity to review and improve their effectiveness in line with the innovation vision of Region Skåne. The *focus of the intermediaries* needs to be on the growth phase of High Potential Start-up Companies (HPSC). To drive this development, a realignment of and simplification of the intermediary system

should aim to provide clarity and easy access for companies to supports and mentoring facilities.

The range of supports provided by intermediaries is broad and varied. The needs of companies for support should drive development in technologically driven innovation, innovation in services and the servicisation of technology. This requires a highly complex and demanding array of supports which need a clear criteria and access points for companies and intermediaries alike. In reviewing supports and policies, both existing and new policies can be broadened and deepened, to making them more accessible and applicable to all forms of innovation including innovation in services. In addition, targeted policies may needed to stimulate for example innovation in services. These could include measures aimed at Knowledge Intensive Business Services (KIBS) and non-techno-logy oriented innovation such as organisational and marketing initiatives.

Support the intermediaries to work in start-up companies as apprentices:

The demand on intermediaries is becoming increasingly complex as they play a progressively important role. It is therefore essential that they can respond rapidly and effectively to the needs of growing companies who find themselves in a constantly changing global market. It is important for the intermediaries to have a deep and up-to-date understanding of the company needs and future potential. To promote this capability and their further trust with companies, an *exchange or part time placement initiative for intermediaries* may be considered as part of a CPD or life-long learning programme.

Good idea to incentivise individuals in public sector to work with innovation: The public sector is a further important source of innovation. Public procurement is a powerful example of driving innovation that can promote both technological and services innovation.

Demand-driven innovation is a format of innovation that can set an exemplar for the formulation of a solutions-focused procurement process and encourages regional high potential start-ups and growth companies to engage in innovation. Such *encouragement to partake innovation* should also be extended to employees within the public sector itself by putting in place an appropriate incentivisation programme.

Region Skåne as manager of health care should act proactively on innovation in health care for growth: Region Skåne is mandated to manage regional healthcare. This provides a unique opportunity to drive innovation in the Skåne region. *Regional Healthcare provides a thematic innovation platform* for companies, knowledge providers and the public sector to engage in all forms of innovation including technologically driven innovation, innovation in services and the servicisation of technology. In conjunction with access to the resources in the neighbouring Öresund cluster, the potential for regional sectoral development should be significant.

The innovation model of *Demand Driven Innovation* is the next generation innovation policy and enhances innovation and their uptake by stimulating demand for innovations and improving market conditions for their take-up and utilisation. A Demand-driven innovation policy can drive innovation in thematic and cross-disciplinary areas such as Healthcare, Aging Population and CleanTech.

4. Strengthen and streamline the existing innovation support structure

There is already a lot of activity underway in Skåne to support the innovation system, with a plethora of interventions, including science parks, incubators, business advice, internationalisation support, funding and equity investment access and support. Overall 51 intermediaries were identified in the Value Network analysis. During the peer review meetings the peer group met a number of these intermediaries, as well as cluster organisations.

One key question raised at an early stage in the peer review process was whether these different interventions were sufficiently joined into a coherent system, or whether they were just operating as separate activities. Without a coherent system there is a danger of inefficiencies, overlaps and gaps. The following reflects the peer review group recommendations with regards to this strategic theme.

The need to establish a long term staged based funding in the system for implementing the strategy and move away from project based funding of intermediaries which leads to fragmentation of the support structure:

Much of the funding for these interventions is project based, with short term financing for up to 3 years. As a result each intermediary is chasing the next round of funding, potentially slightly adjusting their offering to fit with any new funding options. This leads to short term action, and new projects regularly appearing. There is no overall strategy to this pot of funding, but rather slightly different agendas from each of the funding organisations.

Long term funding would encourage building on strengths, learn from previous activities and support improvement. However long term funding is not guaranteed and must be staged – i.e. intermediaries must show they are delivering against milestones.

A convener, Innovation council, is important for this: The role of the Innovation council can help shape the overall strategy and have an overview of the range and scope of services within the innovation system. (This is further developed under strategic theme 1).

Draw the practical conclusions of the mapping and analysis done on the support structure to identify gaps and overlapping and for communication among intermediaries and users: Work has already been undertaken to map the actors in the innovation system and the support they provide. This now needs to be taken to the next step. The work can be used in two major areas:

- System Analysis – are there any duplications or any gaps in the support services that are apparent? Also are the linkages well served to make the support system a coherent whole? This will give an immediate indication of how the system can be improved;
- Communication Tool – This can be the “full menu” of services for the user. It can also serve to facilitate learning across the intermediaries as to the other services on offer in the region and their scope;

The need to develop easy entrance and transparency to the system – for example one stop shop/no wrong door: No matter where a user enters the support structure, they should be able to be helped and signposted to the correct service. Rather than a one stop shop, this may be more accurately described as “no wrong door”. For this to be implemented the learning across the intermediaries must be accurate and the information regularly updated. The web platform that has been suggested may be a good forum to implement this recommendation. In addition the intermediaries must have a collective responsibility for servicing the needs of the users across the support structures, not just within their individual projects.

Develop business mentor networks for qualitative support services: Often the most valuable input to a young business is the advice and expertise from someone who has been through that experience and has “been there, done that”. Some of the intermediaries, particularly those focused on accessing funding, already have banks of mentors. This should be expanded, and the experience spread across the support services.

Incentivise professors and researchers to work closely with companies and entrepreneurs (the third merit portfolio): In order to encourage academic staff to proactively engage with companies and entrepreneurs, this activity must be seen as valued, and as worthy of effort as research publications. Incentives should be explored as a mechanism for encouraging this focus. In addition, it should be understood that engaging externally (the so called third stream activity) is of benefit to the researchers as well, leading to better, more commercially accessible research results.

Setting clear objectives and measuring the success of the innovation system: Currently measurement is undertaken individually by each intervention. There is no consistency and the danger of over-claiming results when more than one intervention is involved. By setting clear overall objectives for improving the innovative capacity of the region, and developing an overarching measurement framework to capture progress towards those objectives, all of the different activities and the actors involved can have a clear understanding of their role in the system, and their contribution to the achievement of the overall objectives. This will also help shape the required interventions, by focusing on what needs to be achieved.

More MAPT-orientation in the support structure: Currently most of the focus of intermediaries is on supporting technology. Innovation can be described as “the successful exploitation of new ideas”. As such the market is the first focus, in trying to identify the needs of customers. Support should therefore follow the MAPT orientation – i.e. Market, Application, Product, Technology.

Structure of intermediaries must reflect and support the diversity of the region in order to fully release the potential of Skåne: Skåne has a rich diversity which is an opportunity that should be maximised. The intermediary support that the peer review group met was not representative of that diversity. This in itself can be a barrier for some in the region to engage with the support available as it can be viewed as “not for them”. In order to maximise the potential of the region, the support structures should be equally diverse.

5. Strengthen the ability to identify gaps and develop measures to close these gaps

In the action plan it was concluded that there is great potential for synergy in the intersections between the region’s different industries and technologies. One key issue raised during the peer review process was whether it is possible to identify gaps in the current support system and which measures should be developed to close these gaps in order to further strengthen the innovation capacity of Skåne. The following reflects the peer group recommendations with regards to this strategic theme.

Develop a regional marketing and communication strategy: There is a great need for an integrated regional marketing and communication strategy, especially related to the Oresund region. The potential of the region geographic location is clearly underexplored. It appears that Skåne is closely linked to Copenhagen, but in many cases stubbornly facing towards Stockholm. Both during the interviews with the intermediaries and with the entrepreneurs it became apparent that the focus is primarily direct to Stockholm. For instance, entrepreneurs complained about the ‘logistics nightmare’ of having to commute to Stockholm on a regular basis.

Strengthen the business and user driven perspective based on a need analysis Much attention of the current innovation support system is directed to technology development, while there is a clear need for a stronger focus on the demand side of innovation. Support should ensure that innovation focuses on customer need, not just pushing technology and new ideas. This will also help to bring a commercial focus to new and growing businesses.

Strengthen the (international) marketing and sales competencies in the innovation support system: The area of marketing and sales is underserved, while the discussions with the entrepreneurs revealed that there was a strong need for support in this area, especially directed to international marketing and sales.

Identify gaps and needs also related to traditional industries and companies and develop the interfaces/platforms for finding solutions to business needs: Much work has already been undertaken by the innovation support system to identify gaps related to new industries and technologies. There is a need to focus on traditional businesses, as well. For especially in the interface between existing and emerging technologies the largest gains are to be expected for mutual knowledge development based on a collaborative approach.

The need for support to international growth and up-scaling: There is a too narrow focus of the innovation support system on the early phases of development, including emerging technologies and start up firms. The peer group emphasizes the importance of empowering small companies to enter the exponential growth phase in the industrial life cycle. It stresses the importance of guidance towards up-scaling, for example through strategic advice concerning recruitment for international growth.

Develop strategic leadership using business leaders as entrepreneurs in residence and visiting experts: The peer group advises to include (international) business leaders in higher education entrepreneurship programs as entrepreneurs in residence or as visiting experts as a tool to support business development and innovation.

6. Strengthen the regional innovation system through internationalization

The Action Plan correctly identifies internationalization as an important and vital tool for strengthening the regional innovation system. The interviews with the innovation actors pointed to a clear need for improving firms and clusters internationalization competencies and linkages.

The Action Plan emphasizes the need to strengthen user-driven innovation. However, one of the challenges faced by regions in Europe is that, increasingly, the users of innovation are outside Europe and even North America, in countries such as in China, India and Brazil. These countries are increasingly demanding innovative products and services, for example in the field of environmental technologies. At the same time, emerging economies are dramatically increasing their knowledge resources (through investments in research and human capital). Linking up to these new knowledge and innovation hubs, and succeeding in these new growth markets, requires deliberate strategies, competencies and efforts.

In the interviews with innovation actors, companies and intermediaries emphasized the needs to strengthen international marketing and sales competence. They also saw a clear role for Region Skåne to provide competencies, platforms and services for strengthening firms' abilities to increase their global linkages.

Based on the interviews and their own assessments, the peer group recommends the following concrete actions:

Build international networks – regional alumni, diaspora: Skåne today has strong, but underutilized, assets when it comes to strengthening competitiveness through global linkages. The universities in Skåne host large numbers of foreign students and researchers. The region attracts a large number of immigrants, many of whom have unique competencies and networks. Furthermore, a number of 'Scanians' live and work in important knowledge and innovation hubs around the world. All of these groups provide valuable linkages, contacts and competencies. The peer group recommend that the region work more actively with different alumni networks and 'ambassador' programs (prominent 'Scanians' residing outside Scania who can help to 'open doors' for innovation actors and increase visibility of the region abroad) in order to more fully utilize their potential as 'globalization assets or resources for the region.

Map the international linkages of clusters and business sectors in the region: Successful internationalization efforts require a clear strategy which in turn requires a shared view of the strengths and weaknesses in the region's internationalization performance. We recommend that the region complement its innovation system analysis of Skåne with a mapping of global linkages of the region. Such a mapping could analyze human capital flows, international research and patenting cooperation, and or firms, sectors or clusters foreign presence and linkages, but also the presence of foreign firms in Skåne.

A good example of such an analysis can be found in the Silicon Valley Index, a benchmarking exercise, which was performed in 2007 and which among other things looked at the presence of foreign firms in Silicon Valley as well as co-patenting levels.

Develop and promote the international marketing and sales competence among the intermediaries and the growth companies: Numerous innovation actors identified weak international marketing and sales competence among both firms and intermediaries as a challenge for growth and competitiveness. The peer group suggest designing efforts aimed at strengthening firms' and sectors' international marketing and sales competencies through targeted initiatives but also by pooling and providing internationalization competencies and services.

Work with and mobilize the existing international competences and resources in the region: (See also the first bullet point about the international networks). The region has one of the highest shares of foreign-born residents in Sweden (and Europe?) (particularly the Malmö-Lund region), largely due to the large inflow of immigrants. We recommend that the region make more efforts to mobilize and release the potential of its foreign-born population to contribute to competitiveness and innovation through its competencies and international networks.

An example can be found in the large diversity, knowledge and concentration of ethnic food producers and retailers found in and around Malmö. The British city of Birmingham in the UK managed to leverage its multicultural populations profile to establish itself as an international ethnic food cluster (see for example http://rogue.ncl.ac.uk/file_store/nclep_161141984236.pdf).

More efforts should be taken to realize the potential of existing international competencies and resources within the region. This could be done through initiatives focused more specifically on the needs and opportunities of the existing international communities within Skåne. Other initiatives could seek to establish meeting places between, for example, companies seeking to do business in China and the Chinese community in the region (students, researchers, residents). This would allow firms to tap valuable networks and competencies on Chinese markets close to home.

Another important strength which could be leveraged more are the existing international cooperation going on at the regions universities. Research and academic cooperation are proven to be important entry points to strategic markets, for example research cooperation and student exchange with China can be a valuable asset or entry point for firms seeking to enter the Chinese market (University cooperation can provide important contacts, it can include firms in international cooperation projects, and foreign students are an important source of human capital and competencies).

Support the opportunities to growth in the Öresund region and leverage that for the development of the Skåne region: The peer group saw considerable potential for further developing the economic integration of the Öresund region to the benefit of the competitiveness and prosperity of the Skåne region.

The need for a international communication strategy for the region: The region would benefit considerably from drafting an international communication strategy for the region. This strategy should set out how Skåne wants to portray and position itself internationally. Such a strategy should be produced jointly with key stakeholders and should identify and communicate the strengths of the region. This could contribute significantly to attracting inward direct investment (also FDI in research and development) and human capital. Scanians living abroad could be mobilized to work as ‘ambassadors’ for the region. However, in order to be able to convey a strong and positive image, and a consistent message, abroad, an international communication strategy is needed. In the drafting of the international communication strategy it would be useful to benchmark oneself against other regions and their strategies.

7. Create and support creative and innovative environments

The Skåne region has established some strong cluster initiatives and infrastructure providing the basis for a creative and innovative environment. Currently

these are principally sector and technology based clusters but do provide platforms on which broader innovation activity can be developed. Acknowledging that there is a continuous need to deepen innovation at sectoral and technological levels (vertical approach), cross-sectoral and cross-disciplinary innovation (horizontal approach) will broaden further the scope of enterprise development and forms the basis for innovation in services. The simultaneous development of both the *vertical and horizontal approaches* should provide a rich creative and innovative environment that supports the interplay between enterprise, knowledge providers and the public sector.

Support cross disciplinarity in cluster policy and initiatives from a business perspective: Strength and proficiency in clusters is often achieved by deepening the expertise in particular disciplines. Current clusters in the Skåne region are largely embedded in specific disciplines such as ICT, Life Sciences, Food and Moving Media. Whilst there is some cross-disciplinarity in each of the clusters, a dedicated policy approach to ensure *cross-disciplinarity* with other clusters will broaden mind-sets and create new opportunities for introduction of unique products, processes and services into the market place.

The proposed CleanTech cluster does not only lend itself to cross-disciplinarity, but can provide a platform for promoting this policy initiative. For example, Cleantech technology can both draw on and impact on ICT and Moving Media. Similarly, the current requests to Region Skåne for setting up clusters on Logistics and Packaging will provide an ideal opportunity to promote a cross-disciplinary and horizontal cluster policy. Support for the establishment of these clusters can be made conditional on co-location, management and/or virtual integration with existing clusters such as ICT, Food, Moving Media and CleanTech.

Targets of measurable objectives and outputs need to be put in place to ensure delivery on the Region Skåne aims set out in its vision for 2020. The creation of these new areas of competencies and opportunities should provide the Skåne region with a global uniqueness. Furthermore, such an initiative should provide Region Skåne with an opportunity to develop the strengths of the whole of the Skåne region more equally beyond the Lund – Malmö zone.

Adopting a cross-disciplinary approach to cluster policy and development provides a new and innovative initiative to initiating *thematic clusters*. The setting up thematic clusters is an opportunity for the Skåne region to differentiate itself as a region of excellence, creativity and innovativeness. Themes such as, for example, 'Healthcare', 'Regional Foods', 'Delivery to Global Markets' can promote and develop unique products, processes and services and that can be developed across all parts of the Skåne region.

Create informal meeting places between entrepreneurs, clusters and industry: To support the development of new business models, enterprise would benefit from informal fora and supports to promote cross-fertilisation between the players and drivers. Existing facilities and infrastructures in business and science parks can provide informal platforms for cross fertilisation and creativity

between entrepreneurs, knowledge providers and intermediaries. The objective is to provide an informal meeting platform where people from different communities and backgrounds can meet in a learning environment where they can freely exchange ideas, views and experiences. Periodic breakfast or lunch seminars can provide the focus of informal networking events. Brokerage events and half day workshops are similar informal networking opportunities to address specific business and socio-economic topics.

Annex 1. Agenda for The Regional Peer Review

Sunday 13th September

Time & Place	Theme	Participants	Name
19.00-21.00 Hotell Mäster Johan	Presentation of the team and the task, planning of the work to be done	Members of peer review team and process leader, 10 persons	Jos Evertsen, Hans Henrik Fischer, Frances Fortuin, Onno Omta, Tracey Grose Peter Kempinsky, Jan-Anders Månson, Sylvia Schwaag Serger, Madeline Smith, Carin Daal, Göran Andersson

Monday 14 september, Malmö

Time & Place	Theme	Participants	Name
08.30-09.45 MINC, Anckargripsgatan 3, Malmö	The regional innovation system in Skåne and the strategy to improve it	Politicians and management team for regional development at Region Skåne and VINNOVA	RTN, Pia Kinhult Region Skåne, Hans Hennecke, Lennart Svensson, Carin Daal VINNOVA, Göran Andersson
09.45-10.15	BREAK		
10.15-11.30 MINC, Anckargripsgatan 3, Malmö	The role of university for innovation and competitiveness in Skåne	Managers for collaboration at University and Colleges in Skåne	KH – Christer Ekelund LU – Mats Lindoff MaH – Eva Engquist & Bo Reimer SLU – Anders Nilsson
11.30-13.00 MINC, Anckargripsgatan 3, Malmö	The support system for entrepreneurship and innovation in Skåne	Managers from leading actors in regional support system	Almi – Johan Olsén, Connect – Nicholas Jacobsson, Ideon – Hans Möller. Innovationsbron – Per Heander. Invest in Skåne, Stefan Johansson, Krinova – Lena Åsheim. LU innovation – Johan Drott, MINC – Rickard Mosell Teknopol – Anders Dellson Venture Cup – Johan Rosendal, Tjänsteinkubator – Sven Johansson
13.00-14.00	LUNCH		
14.00-17.00 MINC, Anckargripsgatan 3, Malmö	The cluster initiatives in Skåne – creating competitiveness and attractiveness	Managers and entrepreneurs from the cluster initiatives	Medicon Valley – Peter Nordström, MMSS – Magnus Thure Nilsson & David Pohlfeldt, Ubisoft Massive, Mobile Heights – Helene Vogelmann & Lars Tilly, Ericsson. Skånes Livsmedelsakademi – Lotta Törner & Sven Bentinger, The Deli Company Sustainable Business Hub – Per Simonsson/Mikael Edlestam NESST – Lennart Svensson
19.00 Malmö konsthall	Dinner	Actors in the regional innovation system from the meetings during the day	All participants Arne Eriksson Marjolein Caniels Markku Sotarauta Elvira Uyarra

			Johan Wallin
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Tuesday 15 September, Lund

Time & Place	Theme	Participants	Name
09.00-10.30 Ideon, Knut Wiksellssal, Betahuset, Scheelevägen 17	The next wave of innovative and competitive power in Skåne	Young entrepreneurs and innovators in Skåne	Johan Källstrand, <i>Senso Detect AB</i> Mikael Håkansson, <i>Ugly Duckling</i> Sebastian Merlöw, <i>Absalon AB</i> Johan Eckerstein, <i>MyJoice</i> Verena Wiget, <i>AISEC Lund</i> Henrik Lundblad, <i>Sindarin Technologies</i> Kristian Hansson, <i>Malmö uppfinnareförening</i>
10.30-12.00 Ideon, Knut Wiksellssal, Betahuset, Scheelevägen 17	Seminar to analyze and summarize the Peer Review.	Members of Peer Review team and process leader	Jos Evertsen, Hans Henrik Fischer, Frances Fortuin, Onno Omta, Tracey Grose, Peter Kempinsky, Jan-Anders Månson, Sylvia Schwaag Serger, Madeline Smith
12.00-13.00	LUNCH		
13.00-15.00 Biskopshuset i Lund	Analysis seminar continues	Members of Peer Review team and process leader	
15.00-17.00 Biskopshuset i Lund	Feedback to Region Skåne – presentation of findings and conclusions	Politicians, regional expert board (soundboard)	<i>Lunds Universitet</i> , Per Eriksson, <i>Malmö Högskola</i> , Eva Engquist, <i>Innovationsbron</i> , Jonas Gallon, <i>Region Skåne</i> , Hans Henecke, Lennart Svensson, Carin Daal <i>VINNOVA</i> , Sven-Gunnar Edlund, Göran Andersson <i>RTN</i> , Pia Kinhult <i>Region Skåne</i> , Mats Persson
18.00-21.00 Q-day/ Innovation in Mind	Dinner	Politicians, regional expert board, young entrepreneurs and innovators	All participants