



Entrepreneurship

An assessment of performance, education and venture capital in the Stockholm, Helsinki and Copenhagen regions.

Metropolitan Inc.





Table of contents

Foreword.....	3
Executive summary.....	4
Analytical framework.....	5
Entrepreneurship in metro-regions	6
The model.....	7
Performance – key indicators.....	8
Framework conditions – key indicators.....	14
Entrepreneurial education as a driver of entrepreneurship.....	15
Venture markets in the metro-regions.....	29
Entrepreneurial initiatives	41
Appendix 1.....	45
Appendix 2.....	46
Appendix 3.....	49

Foreword



Metropolitan Inc. is a consortium of three Nordic metro regions Stockholm, Helsinki and Copenhagen represented by Stockholm County Council, Uusimaa Regional Council (Helsinki Metropolitan Region) and The Capital Region of Denmark (Copenhagen Region).

The partners carries out joint analysis on the future challenges of metro regions and exchanges ideas and new knowledge about good practices within regional economic policy.

The idea is to pool analytical resources from each of the three metro regions and jointly build a solid fact base which the participating metro regions can draw on in their regional strategy work.

The analytical activities are co-funded equally by the three Nordic metropolitan regions and the Danish Enterprise and Construction Authority.

The project has been led by a steering committee with representatives from the three metro regions (Stockholm County Council, Uusimaa Regional Council, Culminatum Innovation Oy, Capital Region of Denmark), while the analytical work has been carried out by FORA (The research unit of the Danish Enterprise and Construction Authority) and IRIS Group.

This paper is authored by Charlotte Kjeldsen Krarup, Casper Rom Johnsen, David Boysen and Frederik Dømler from FORA. Valuable assistance has been made by Trine Fuglsang.

Metro regions - strategic sites in the global economy

Metro regions have become central nodes in the global economy. Even the most globalised industries and the largest multinational companies has a production process that is at least partly placed bound because of the combination of resources it requires (...) increasingly, metro regions become strategic sites where much of the work of globalization actually gets done.

***Saskia Sassen
Professor, Columbia University***



Executive summary

This study of entrepreneurship in Stockholm, Helsinki and Copenhagen shows that the three Nordic metro regions are faced with many of the same challenges in a number of key areas.

The metro-regions can be characterised as holding a significant share of newly established companies in their respective countries. However, only a few of these new companies manage to turn into high growth enterprises.

Analysis of two framework conditions, entrepreneurship education and access to capital, show there is still much to do for regional municipalities to improve the framework conditions for entrepreneurship in the region. Improvements in framework conditions will eventually have a positive impact on growth in new firms.

In terms of promoting and practicing entrepreneurship education, Helsinki and Copenhagen are performing somewhat on the same level lagging behind Stockholm. Stockholm has recently transformed their education system, giving entrepreneurship more attention. The effect on the strategic transformation of the educational system on entrepreneurship performance in Stockholm still have to show.

The higher educational institutions in the Copenhagen region face several challenges with regards to entrepreneurship teaching, indicating that entrepreneurship has yet to be transformed into an academic discipline. The educational system in Copenhagen have a great focus on outreach activities, though.

The institutions in the Helsinki region tend to be more advanced in their structures and there are good initiatives that are potential best case practices. On outreach, however, there is a significant room for improvement.

On the venture markets in the three regions, there has been an overall negative influenced by the financial crises in 2008. Further to this, Denmark and Sweden have experienced a decline in the share of non-invested capital. This is not a problem for Finland.

Suggestions for future action of the Metropolitan InC to develop the fact-base for entrepreneurship policy:

Coordinate regional data collection

There is a lack of data on entrepreneurship on a regional level. It is suggested that the Metropolitan InC collaborate on gathering and developing these data. Growth in new companies could be a specific focus-area.

Best practice on HEI's

As apparent in this report, many initiatives at education institutions are being launched in these years. Knowledge sharing and learning from other region's initiatives is very limited, and there is a great potential in congregating results of the various initiatives across the regions in order to optimize the resources invested here.

Access to qualified counseling

The regions can play an important role in securing competent counseling for companies. This is also an area where there are obvious possibilities for learning from each other – especially on the area of counseling stimulating growth in private companies.



Analytical framework

The following review presents results and insights regarding entrepreneurship in three metro-regions: Helsinki, Stockholm, and the Copenhagen region.

The assessment of the regions' innovation capacity is based on benchmarking among European metro-regions on four key drivers of innovation and regional wealth creation. The analytical framework is graphically depicted in the figure on the right hand side.

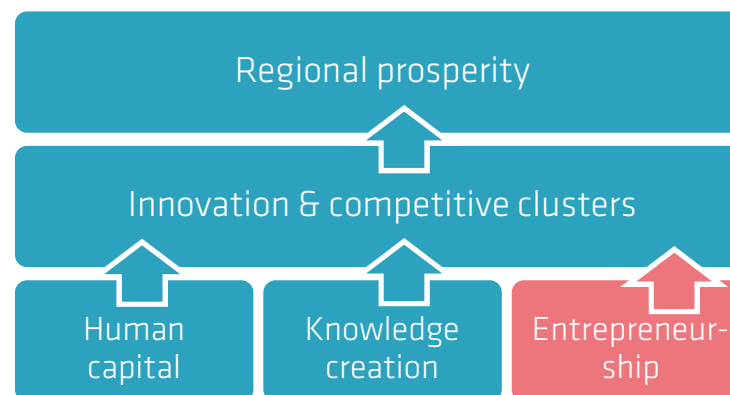
Human capital has to do with access to highly skilled workers in the region. And it has to do with companies' ability to manage and cultivate innovative organizations where the creativity of knowledge workers are utilized to the full.

Knowledge creation concerns public and private investments in research and development. And it concerns the quality of the educational system and public research.

Entrepreneurship is about the entrepreneurial activity and extent of high growth entrepreneurs in the regions.

These framework conditions are crucial for the competitiveness of clusters and the prosperity of the regions.

The Metropolitan InC benchmarking model



This study will focus on how the entrepreneurship performance affects the regions' economic growth and prosperity and how some chosen framework conditions support the regions' entrepreneurship activity.

The remaining elements in the model above will be addressed in two additional papers under the consortia, entitled "Specialized Clusters - An assessment of specialized clusters in Stockholm, Helsinki, and Copenhagen" and "Human resources and knowledge creation - An assessment of human resources and knowledge creation in the Stockholm, Helsinki and Copenhagen region."



Entrepreneurship in metro-regions

Entrepreneurship is an important driver of economic growth, employment, productivity, and innovation (OECD, 2010). Entrepreneurs influence growth because entrepreneurs create new jobs and entrepreneurs stimulate existing companies to become more innovative and productive in order to remain in the market.

All entrepreneurship is local. All new organizations start somewhere, even if they are envisioned as global from the beginning. This is why entrepreneurship and regional growth seem to be closely linked.

Thus, regional initiatives will be an effective tool for stimulating entrepreneurial activities. Regional pro-entrepreneurial initiatives generally will have a high impact on creating a strong regional entrepreneurial eco-system. A regional entrepreneurship policy is therefore critical when establishing a strategy for increasing local growth (Kaufmann, 2008).

In order to make a fact-based regional entrepreneurship policy, policymakers need information on current entrepreneurship performance and on the quality of the entrepreneurship framework conditions. Such information will provide input for the development of a regional entrepreneurship policy.

In this paper two policy areas will be analyzed in further detail;

The educational system may stimulate a strong entrepreneurial culture. The general level of entrepreneurial competences can be improved through the educational system, and new clusters of high-tech, innovative companies can spin off from entrepreneurial educational institutions.

Access to finance can stimulate growth in new companies. Access to finance in itself is not a sufficient prerequisite for growth, but the availability of venture capital may contribute to growth, and investors can provide new companies with professional management teams.

The venture market is explored through data from local venture funds and national statistics while the entrepreneurship educations is investigated through a comprehensive survey among higher education institutions (HEI's) in the three regions. The findings are supported by a number of case studies.

This paper aims to guide future decision-makers as to which regional entrepreneurial activities will be needed in the future.



The analytical framework

The figure below summarises the overall logic behind the entrepreneurship analysis carried out in this paper. (See earlier analysis from FORA for a thorough description of the model, e.g. FORA, 2010).

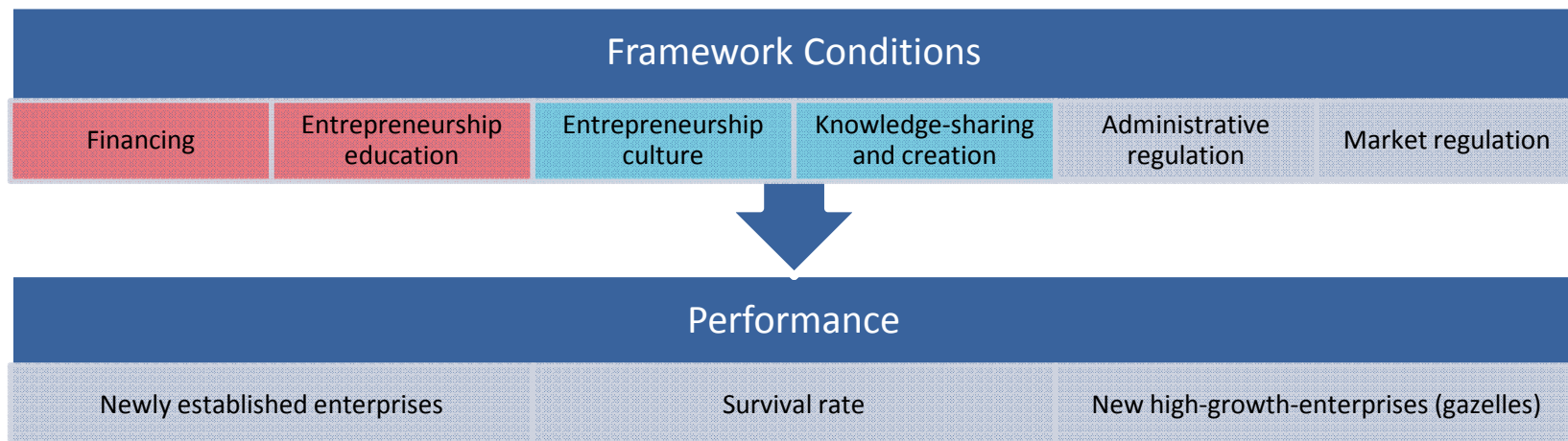
In the following section, three entrepreneurial performance indicators are presented:

- The number of newly established enterprises,
- The survival rate of newly established companies,
- The number of new companies that become high-growth enterprises (gazelles).

Subsequently, the framework conditions for entrepreneurship are analysed.

Entrepreneurship policy can be separated into six policy areas (cf. the model below).

Two areas will be the subject of in-depth analysis in this paper: financing and entrepreneurship education (red boxes); two will be touched upon indirectly: entrepreneurship culture and knowledge-sharing & creation (light blue boxes). Administrative regulation and market regulation (grey boxes) are not addressed in this report.





Key indicators on entrepreneurship performance

The indicators used to describe entrepreneurship performance are described below.

Newly established enterprises

Newly established enterprises are measured by comparing the absolute number of newly established enterprises with the current company base (“Birth rate of enterprises”). This number cannot be obtained on a regional level as data are not sufficiently developed to allow for proper comparison. Instead, we measure the number of companies in the region relative to national levels. Subsequently, the data is corrected for metropolitan size by including approximated population sizes. This should provide an overall image of how metro-regions perform in terms of establishing new companies compared to each other and to their own country.

Survival rate

In terms of established companies, it is crucial to know how many of them actually survive long enough to contribute to long-term growth.

In this analysis the survival rate is defined as the percentage of enterprises born two years prior having actually survived. However, the number should be interpreted with some caution as a low survival rate could be explained by a high rate of enterprise establishment, which obviously will contain some uncompetitive companies - and vice versa.

Newly established high-growth enterprises (gazelles)

Gazelles are defined as enterprises that have been in business for a period of up to five years, with an average annual growth (in employment or turnover) of more than 20 percent over a three year period and with ten or more employees at the beginning of the observation period.

Comparing entrepreneurship activities across countries and regions is by no means a straightforward exercise. The Entrepreneurship Indicators Program by OECD-Eurostat has taken important steps towards making national data comparable. Data on a regional level are unfortunately not yet available.

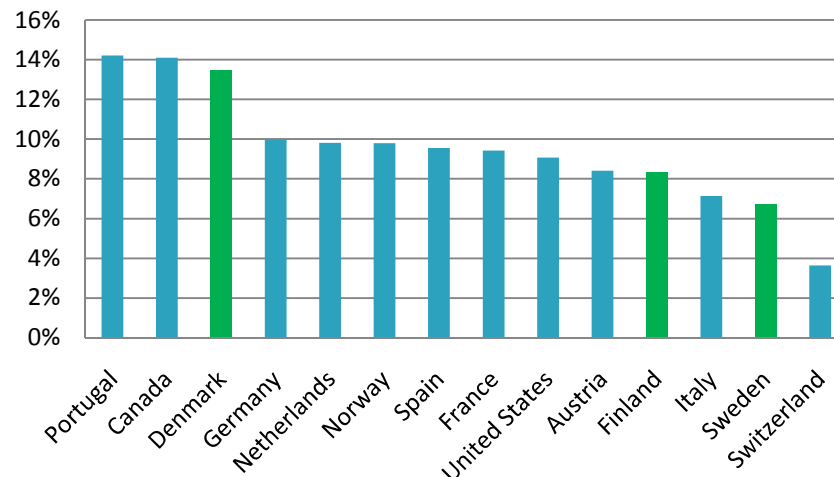


Performance – national startup and survival rates

In 2006, Denmark was among the best performing countries in terms of establishing new companies (Figure 1). New companies constituted 13.5 percent of the total company base in Denmark. For Finland and Sweden the number was 8.3 and 6.7 percent, respectively – slightly below the EU average of 9.8 percent .

From 2002 to 2006 Denmark increased this share significantly, from approximately 9 percent in 2002 to 13.5 percent, compared to Finland’s and Sweden’s moderate growth of approximately 1.5 percent and 1 percent, respectively (Danish Enterprise and Construction Authority, 2009).

Figure 1: “Birth Rate of Enterprises”
Percentage of firms established as a share of the total company base (2006)



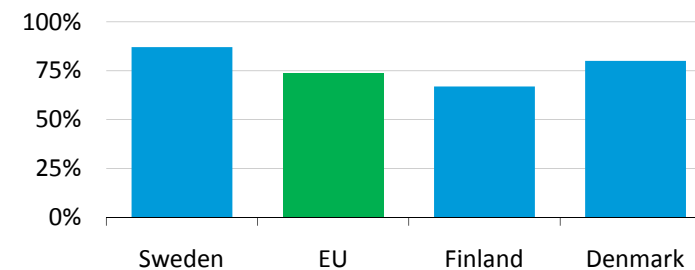
Source: OECD-Eurostat Entrepreneurship Indicators Programme

Even though Sweden established fewer start-ups than Denmark and the EU average in 2006, Sweden had the highest survival rate of companies in EU. 87 percent of all companies established were still in business two years after the establishment. The EU average was 74 percent and 67 percent for Finland.

Comparable data for Denmark do not exist, but other OECD data indicate that in 2004 and 2005 Denmark had a one-year survival rate for start-ups of roughly 80 percent in services and manufacturing (OECD-Eurostat, 2009). Thus, the two year survival rate for Denmark should be close to the EU average (74 percent) and Finland (67 percent).

Following the economic crisis, data suggest that Finland, and in particular Denmark, has been badly hit in terms of enterprise births and exits compared to other OECD countries (OECD-Eurostat, 2009).

Figure 1.1: Enterprise survival rate, business economy, 2006 (% of enterprises born two years before who survived)



Source: OECD 2009 & Eurostat, 2009



Performance – entrepreneurship activity in metro-regions

Of all the companies established in the three countries, the metro-regions account for a large share of newly established companies.

In 2007 the metro-regions in Finland and Denmark had the highest scores of 36 percent and 35 percent, respectively, of new companies, slightly higher than Stockholm's 30 percent (Figure 2). Thus, it becomes even more important to develop appropriate framework conditions in the metro-regions because of the higher share of new enterprises established.

The picture is identical when adjusted for metropolitan size. The metro-regions' ability to establish new firms is superior when compared to the country average. This trend is particularly strong in Stockholm and Helsinki (Figure 3).

Figure 2: Newly established enterprises in 2007 (percentage)

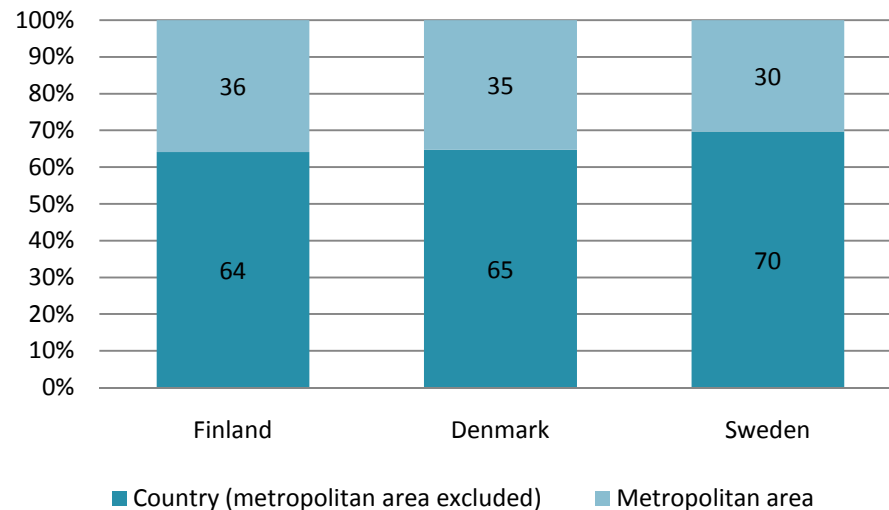
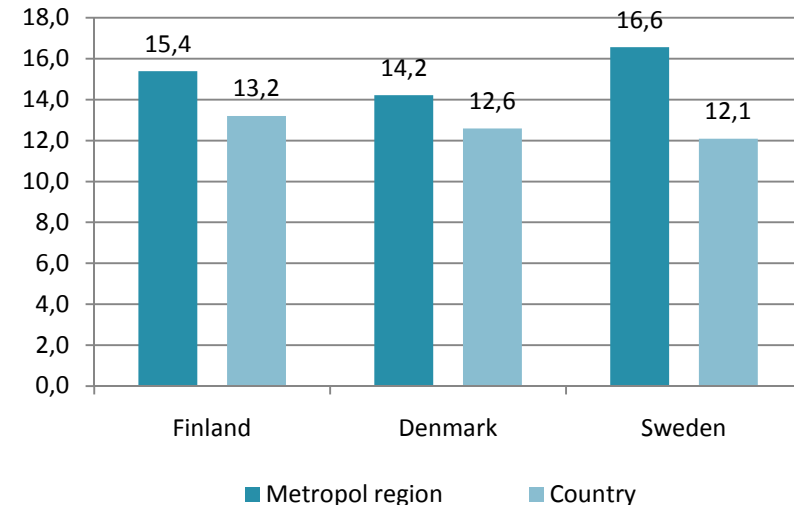


Figure 3: Newly started firms per 1000 economically active persons (15+), 2007



Source for Figure 2 and Figure 3: Denmark: Statistics Denmark; Finland: Statistics Finland; Sweden: Statistics Sweden, Nyföretagandet i Sverige 2008; and Eurostat
 Note: Numbers cannot be compared in absolute terms from region to region, but only in relative terms. Different definitions apply across the three countries of when a company is established. Inhabitants is measured as all economically active persons (15+) in the country or region. Please also note that the demarcation of the metro-regions can vary and thus also the number of inhabitants. This should however not shake the overall findings.



Performance – high-growth enterprises at national level (1)

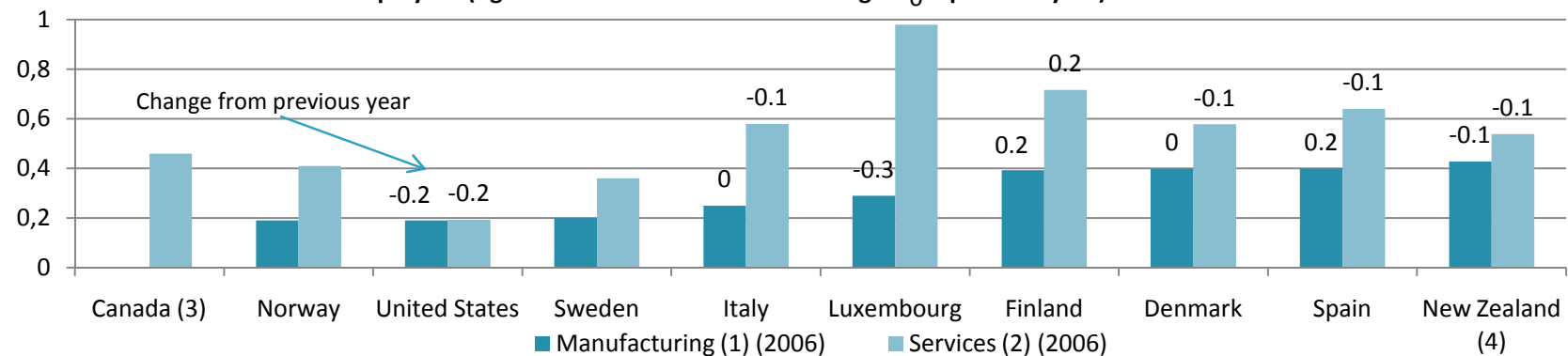
Below we highlight country performance in terms of new company growth measured on employment.

Overall Finland and Denmark have a slightly higher share of gazelles compared with Sweden. In the service sector, high growth entrepreneurs in Finland and Denmark make up 0.7 percent and 0.6 percent, respectively, of the total population of enterprises. This number is slightly lower for Sweden (0.4 percent). In the manufacturing sector, Finland and Denmark are at the same level (0.4 percent), with Sweden slightly below (0.2 percent).

In relative numbers Sweden did not perform as well as Finland and Denmark. However, in 2006 the absolute number of gazelles (employment definition) in the three countries were almost identical, approximately 100 (Eurostat, 2010).

The low number of gazelles implies that adding or withdrawing a few a certain year would have a significant impact when comparing countries. Thus, gazelle performance should be interpreted with some caution, as the comparison is based on a single year (the only year from which comparable data can be obtained).

Figure 4: Share of gazelles (employment definition), 2006. As a percentage of the population of enterprises in the sector with 10 or more employees (figures above the bar indicate change from previous year)



1. Mining and quarrying; Manufacturing; Electricity, gas and water. 2. Wholesale and retail trade; Hotels and restaurants; Transport, storage and communications; Financial intermediation; Real estate, renting and business activities. 3. Employer enterprises with fewer than 250 employees. 4. 2008.

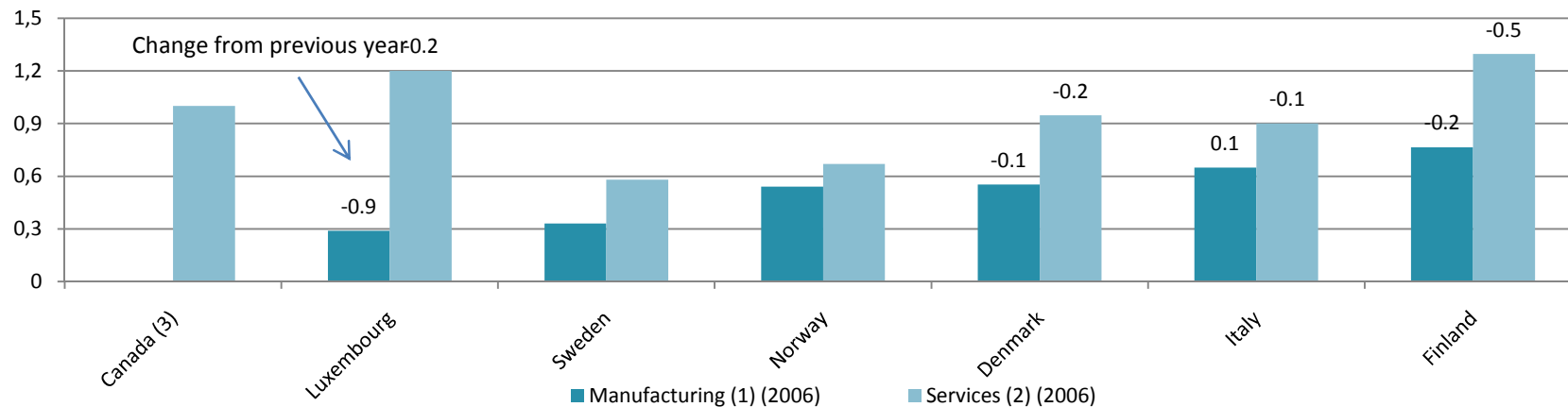
Source: OECD Structural and Demographic Business Statistics (SDBS) Database



Performance – high-growth enterprises at national level (2)

By replacing the employment indicator for gazelles with the turnover rate indicator, the overall results confirm the trend. Denmark (0.9 percent) and, in particular, Finland (1.3 percent) have a higher share of gazelles compared with Sweden (0.6 percent) in the service sector in 2006. The same picture is evident in the manufacturing sector, Finland (0.8 percent) is performing slightly better than Denmark (0.6 pct) and, in particular, Sweden (0.3 percent). Although Finland witnessed a lower share of gazelles in both sectors from 2005 to 2006 it still remained the best performing country in 2006.

Figure 5: Share of Gazelles (turnover definition) 2006 as a percentage of the population of enterprises in the sector with 10 or more employees (figures above the bar indicate change from previous year)



1. Mining and quarrying; Manufacturing; Electricity, gas and water. 2. Wholesale and retail trade; Hotels and restaurants; Transport, storage and communications; Financial intermediation; Real estate, renting and business activities. 3. Employer enterprises with fewer than 250 employees.
Source: OECD Structural and Demographic Business Statistics (SDBS) Database



Entrepreneurship performance – summary

An important overall observation is that the metro-regions hold a significant share of newly established companies. This impression holds true even when the data are adjusted for population size.

This leads to two further observations; first, that metro-regions expectedly have a high share of new high-growth companies (gazelles). Secondly, that establishing proper framework conditions for these start-ups become even more important as the volume of start-ups are larger relative to population size.

- **Denmark** performed well in 2006 and the years prior to that in terms of establishing new enterprises, compared to the EU average and Finland and Sweden .

In terms of establishing high growth entrepreneurs, there is still a great potential for getting more companies to grow. It should be noted that initial data from 2009 strongly indicate that Denmark in particular has been hurt by the economic crisis, decreasing the level of entries while simultaneously increasing exits significantly. Thus, the base from which gazelles can be established has naturally diminished.

- **Sweden** was characterised by a low degree of new start-ups but a high survival rate in 2006. Although Sweden achieved a high survival rate, they were not able to create a corresponding level of gazelles.
- **Finland**, had a rather low rate of entries compared to the company base and a low survival rate. However, Finland performed rather well in terms of gazelles, being the country of the three analysed who had the largest share of gazelles compared to company base, both in term services and manufacturing. New data suggest that Finland has been hurt by the crises in terms of entries and exits, although not to the same extent as Denmark.

Measuring entrepreneurial performance in terms of the regions' and countries' ability to establish companies, sustain them and make them grow, provides an overall qualified image of entrepreneurial performance, although comparable data on a regional level have not yet been developed properly. Furthermore, it should be noted that data primarily date back to 2006, the most recently available data at this point in time. FORA's Nordic Entrepreneurial Monitor project is currently developing updated data providing a more complete picture of the countries' performance.



Key indicators on framework conditions on entrepreneurship

A region's performance depends on the framework conditions, and much can be accomplished on a national level.

However, pro-entrepreneurial regional activities will, all things being equal, have a massive impact on creating an optimal regional entrepreneurship culture and a high competence level.

Regional municipalities hold knowledge on who, what, and how to support entrepreneurship activities in order to complement the entrepreneurial business culture. Awareness of clusters, global knowledge hubs, and human capital are essential here. It takes years for a region to reach high levels of competences in the regional entrepreneurship ecosystem, provided that not only the entrepreneurs, but also their advisors, government officials, venture capital funds, business angels etc. are professional and risk-oriented.

Due to the lack of existing regional data on the two framework conditions, entrepreneurship education and financing, new data has been developed by the Metropolitan InC.

These areas will be analysed one by one in the following.



Entrepreneurial education as a driver of entrepreneurship

Entrepreneurship education is important for developing the entrepreneurial behaviour, skills and attitudes that form the basis of economic growth. Access and exposure to entrepreneurship in the educational system is important because a country's competitiveness, innovation and economic growth will depend on the ability to produce future leaders with the necessary skills, attitudes and behaviour to become entrepreneurs.

The number of courses on entrepreneurship in higher educational institutions has grown significantly over the past 5 to 10 years, and the strong growth is expected to continue. But there is still a lot to be done. Particularly in the areas of curriculum development, training and development of teachers, funding of entrepreneurship, cross-disciplinary research collaboration and the facilitation of spin-offs from higher education institutions (WEF, 2009).

By training students in entrepreneurship their ability to identify and act on business opportunities is enhanced. This sense for business opportunities can be socially contagious: The presence of a few entrepreneurial individuals in a social group can increase the entrepreneurial interest among other members of the group.

This social "contagion effect" may explain why entrepreneur courses in higher educational institutions have a positive impact on growth-oriented entrepreneurial activities for the entire population. Not all students need to be taught entrepreneurship during their studies – an adequate level of exposure is enough to trigger a socially contagious effect (Autio and Heebøll, 2008).

According to the World Economic Forum (2009) competencies should be developed through the use of didactics that encourage students to experiment with entrepreneurship e.g. by working with case studies, simulations, projects, company visits and other practical and involving activities.

Mentoring potential entrepreneurs and exposing them to business through experienced entrepreneurs and managers as well as large mature companies is of vital importance. In this connection, the teacher becomes more of a moderator than a lecturer. However, focus on new methods will not necessarily remove or swallow up the resources allocated to secure that the teachers have the right professional skills as well.



Measuring entrepreneurial in higher educational institutions (HEI)

Becoming an entrepreneurial HEI entails a complex process requiring parallel efforts in a number of areas. The focus areas in this report are: Strategy, education, outreach and institutional infrastructure.

In order to obtain new insights on entrepreneurship education and entrepreneurship activities in HEI in the three metro-regions, FORA has conducted a survey among HEIs in Helsinki, Stockholm, and Copenhagen. The survey has focused on the four important dimensions of entrepreneurship education and activities at HEIs. The survey is comparable to a similar survey conducted at EU – level. For more information on the survey method and questions, see Appendix 1, 2 and 3.

Indicators measuring entrepreneurial activities:

- **Strategy** – who is responsible for the entrepreneurship education at the strategic level? Entrepreneur education will get a much higher priority if a top management person is involved in the responsibility for the strategic development. The recognition of entrepreneurship education as a broader concept has grown remarkably and has led to a focus on the need for entrepreneurship policies in order to embed entrepreneurship throughout all levels of the HEI and throughout all faculties in multidisciplinary HEI's.
- **Education** – the entrepreneurial learning opportunities offered by the institutions. The institution should have highly educated or experienced teachers in and around the field of entrepreneurship. Students should be exposed to cases and projects that will guide them in their future entrepreneurial experiences. Under this dimension, focus will also be on identifying good practice from the HEI's in developing initiatives and delivering entrepreneurial education to the students.
- **Outreach** – interaction with the broader community. This is one of the most important targets for regional policy initiatives. Students in educational institutions can be rather isolated from the business world. Here, outreach activities can offer students the opportunity to gain practical experience. The more regional agents, investors, experts, entrepreneurs and business leaders are involved, the stronger the regional ecosystem on entrepreneurship.
- **Institutional infrastructure** – the structures that the institutions build to support entrepreneurship education and students and researchers in realising their entrepreneurial ideas. Research and cross-discipline structures that further support and develop the entrepreneurship courses at the institution are also of interest in this dimension.



Overall view of entrepreneurship education at HEIs

Compared to the best performing HEIs in Europe, HEIs in Helsinki, Copenhagen, and Stockholm have yet to realise their entrepreneurial potential in a number of areas (Figure 6).

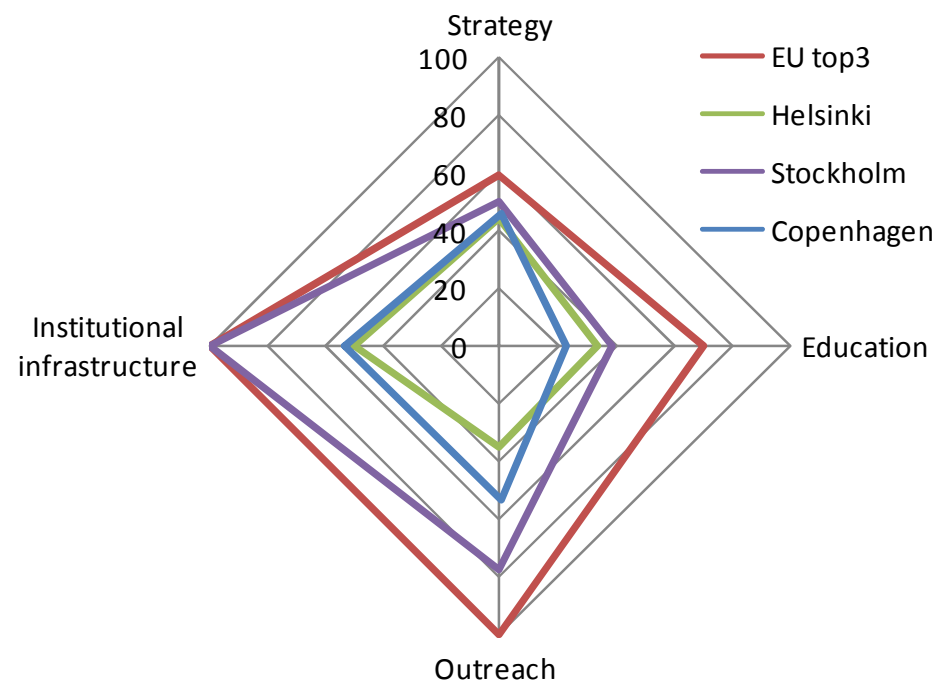
The EU top 3 outperforms the metro-regions on most parameters. Overall, there appears to be room for improvement in several areas of entrepreneurial education.

Copenhagen and Helsinki receive remarkably low scores on all four dimension. Stockholm performs better than its metropolitan peers, especially on the parameters “outreach” and “institutional infrastructure”, but is still well below the potential maximum and the EU top 3 on “outreach” and education”.

Stockholm has recently reorganized the entire educational system in order to enhance entrepreneurship at HEIs. This reorganisation will have great impact on the surveydata for Stockholm.

In order to analyze how the HEI in the metro-regions perform in each of the four dimensions, they will be examined in further detail in the following sections.

Figure 6: Entrepreneurial HEI – 4 dimensions





Strategy

If the HEIs aim at becoming entrepreneurial, the strategic dimension must be regarded as a critical area. A key element in facilitating sustainable and effective entrepreneurship education is that the entrepreneurship strategy roots in the top of the organization and is embedded in the overall strategy of the institution. Another element could be to get a person from top management to undertake the responsibility for the strategic development of entrepreneurship education and the institution's activities in the area.

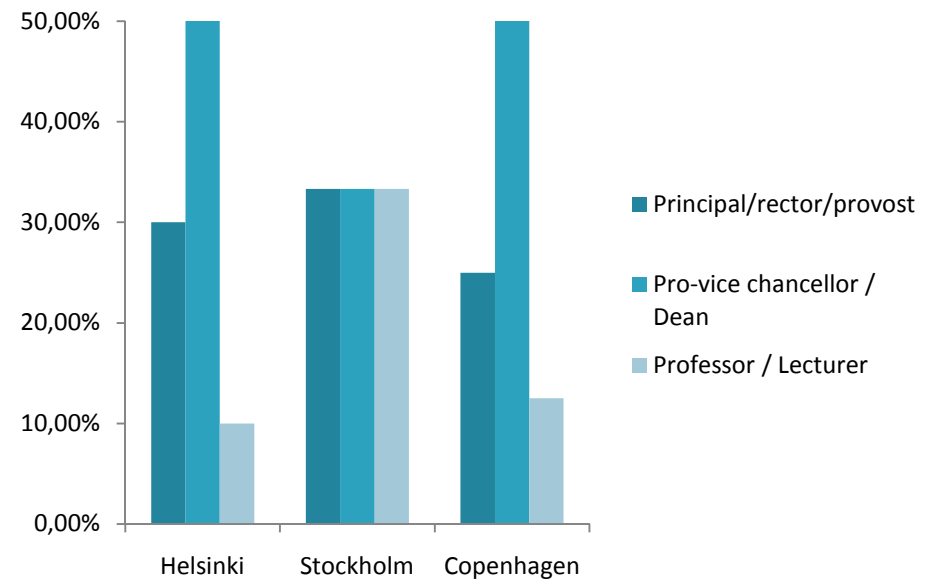
The analysis shows that most HEIs have an individual who is responsible for the strategic development of the institution's entrepreneurship education, but that this individual by no means belongs to top management in all cases (Figure 7).

The institutions in the sample are divided into three groups according to where in the organisation the strategy for entrepreneurship education is developed.

Helsinki and Copenhagen are on level terms in the area of strategy development, whereas the institutions in Stockholm are divided fairly evenly between the three groups. It should, however, be noted that the Stockholm School of Entrepreneurship, covering by far the greatest number of students, develop their overall strategy in a board of professors from all member universities.

Even though it is important to anchor the strategy development of entrepreneurship education at a high level, a lecturer or professor responsible for an institution's entrepreneurship education at the strategic level might very well be doing a good job. But the entrepreneurship education is still not embedded in the overall strategy. And there is a greater risk that if the dedicated individual leaves the HEI, it will affect the entrepreneurship education negatively.

Figure 7: Strategy



Note: Data is based on individual institutions in the sample. Therefore, the EU top 3 is not included.



Education – teaching methods

In order to examine the education at the HEI's two areas will be analysed: "Teaching Methods" and "Skills of the Teachers".

When analyzing Teaching Methods one should distinguish between "teaching about" and "teaching for/in" entrepreneurship. Teaching about entrepreneurship can be compared with more traditional academic disciplines, whereas teaching for/in entrepreneurship involves subjects that traditionally lie outside the university sphere. This will be referred to as applied entrepreneurship education.

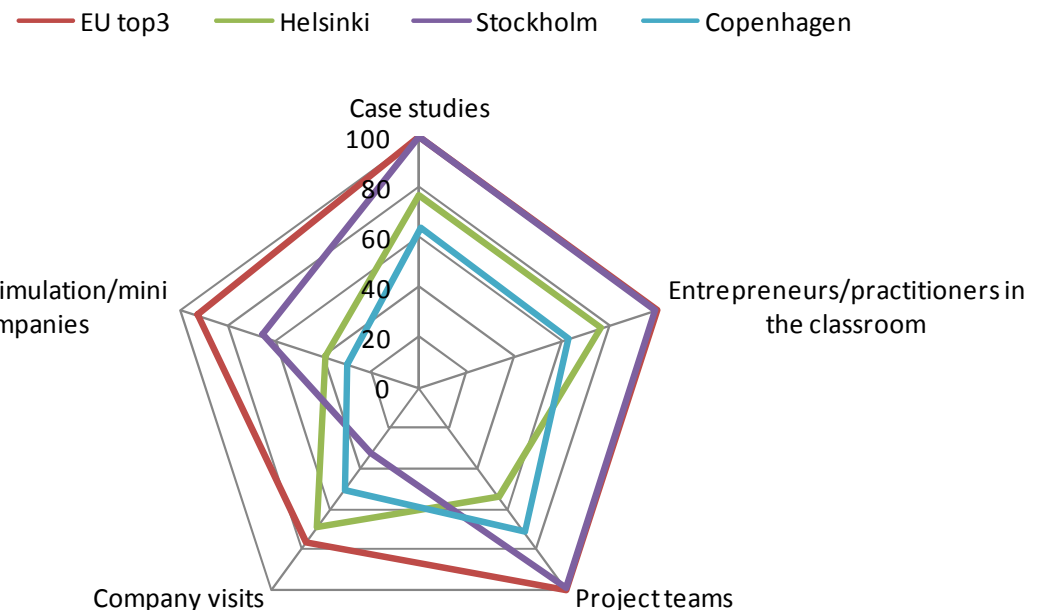
Applied entrepreneurship education is the focus of this analysis. We look at the HEIs' commitment to more "real life" teaching methods and to what extent, if any, the teacher has experience with entrepreneurship or receives training in how to teach entrepreneurship.

Stockholm outperforms Copenhagen and Helsinki in terms of the use of case studies, entrepreneurs, project teams, mini companies and other methods.

Helsinki outperforms Stockholm only when it comes to company visits. When it comes to using inclusive and practical teaching methods, the three regions all lag behind the EU top 3 (Figure 8).

One of the best performing HEIs in the survey is the Arcada University of Applied Science, Helsinki. The university has a well-established tradition for making teaching as concrete as possible, which involves case studies, company visits and even alumni guest lecturers who share their own entrepreneurial experiences. A fixed part of the curriculum is creating a venture – most often it is simulated. However, some students have even started their own company as a direct byproduct of their entrepreneurial studies.

Figure 8: Teaching methods





Education – teacher skills

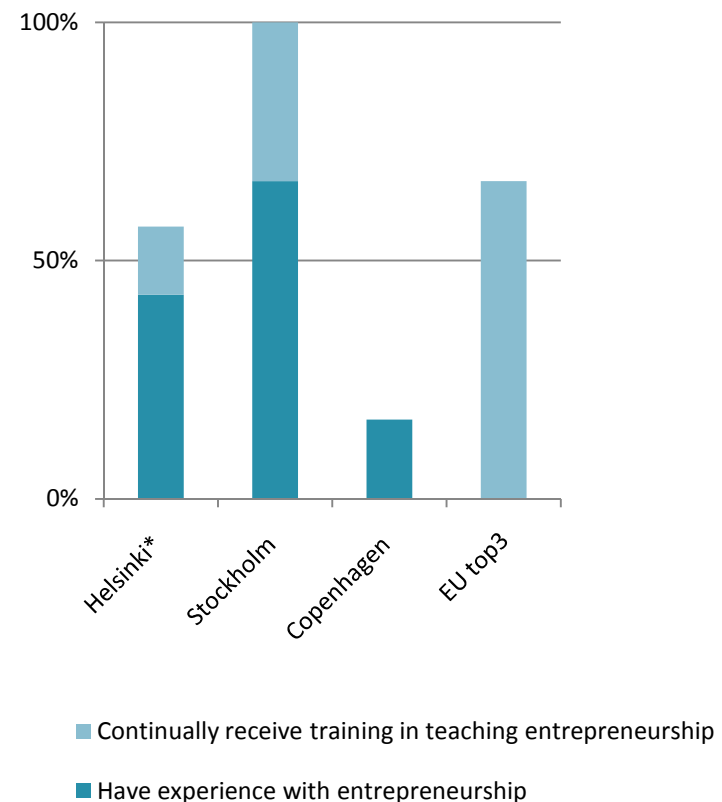
Entrepreneurial teachers are critical to successful entrepreneurship education. Successful entrepreneurship education implies selecting and promoting teachers who are able to engage learners in the necessary experiential activities. Teachers may need training in either or both the experiential pedagogy and the business content. The training curriculum may be nearly as extensive as the underlying curriculum for students (World Economic Forum 2009).

Along with training teachers in entrepreneurship, it can also be beneficial to employ instructors with entrepreneurial experience on HEI's, so that students get to encounter professionals with real life experiences to teach from.

The figure shows how individual institutions answer the question regarding teachers' skills. While the European top 3 is very focused on continually training teachers in entrepreneurship, Copenhagen lags behind (Figure 9). Few HEIs in Copenhagen require that teachers have experience with entrepreneurship, but none require that teachers are continually trained.

In both Stockholm and Helsinki, a larger part of the HEIs require entrepreneurship experience, whereas continuous training is only required by a minor part of the HEIs.

Figure 9: The skills of the teachers teaching entrepreneurship



Case: Stockholm School of Entrepreneurship University

The strong performance of Stockholm is mainly attributable to the Stockholm School of Entrepreneurship's (SSES) cross-university initiatives in the field of entrepreneurship, covering 85 percent of the students at HEI in Stockholm in this survey. In the following, SSES is described in more detail to provide some key points on why Stockholm impresses.

SSES was founded in 1999 by three professors from the Karolinska Institute, Royal Institute of Technology, and Stockholm School of Economics in order to satisfy the demands of students, faculties and industries who were asking for an integrated teaching curriculum on entrepreneurship.

SSES operates as a hub covering the five largest universities; Royal Institute of Technology (KTH), Karolinska Institutet (KI), Stockholm School of Economics (SSE), Konstfack, and Stockholm University (since 2009). SSES is not considered a traditional university, rather an entity facilitating a network involving these five universities, coordinating and helping designing entrepreneurship courses and programmes at all the member universities. All the universities contribute to the network with entrepreneurial courses at either master (11 courses) or PhD (2 courses) level.

Besides offering practical and academic courses, SSES also facilitates extracurricular activities (currently 30) for 200+ students in three areas: Inspiration (e.g. matchmaking events, start-up seminars and guest lecturing), Training (intensive weekend workshops on subjects such as intellectual property rights, negotiation and bargaining, presentation and pitching, trend spotting, and entrepreneurial finance and marketing) and Competitions (Venture Cup, Venture Challenge and European Business Plan of the year).

Both the academic courses and the extracurricular activities are available to all students from the five universities, thus allowing 78,000 students to join the SSES courses or extracurricular activities. Students are encouraged to participate in these courses as the credit obtained can be transferred to the individual student's original program.

SSES holds exams for more than 1000 students each year, testing the students in relation to the academic course programs, and has already tested more than 5,500 students in more than 100 academic courses related to entrepreneurship. In total, the students who have participated in the courses have established more than 150 companies (conservative figure) over the past 10 years.

The logo for the Stockholm School of Entrepreneurship is a green parallelogram with the text "Stockholm School of Entrepreneurship" in white, slanted to the right.

Sources: Rasmus Rahm, Director of Education at SSES and Erkki Aution, "Entrepreneurship Teaching in the Öresund and Copenhagen Region", 2007.



Outreach - collaboration

The outreach dimension covers the two areas “collaboration” and “openness”.

Collaboration refers to the prevalence of networks and the extent of cooperation with parties outside the HEI’s boundaries that provide counsel and aid to entrepreneurial students and help improve the institution’s entrepreneurship activities.

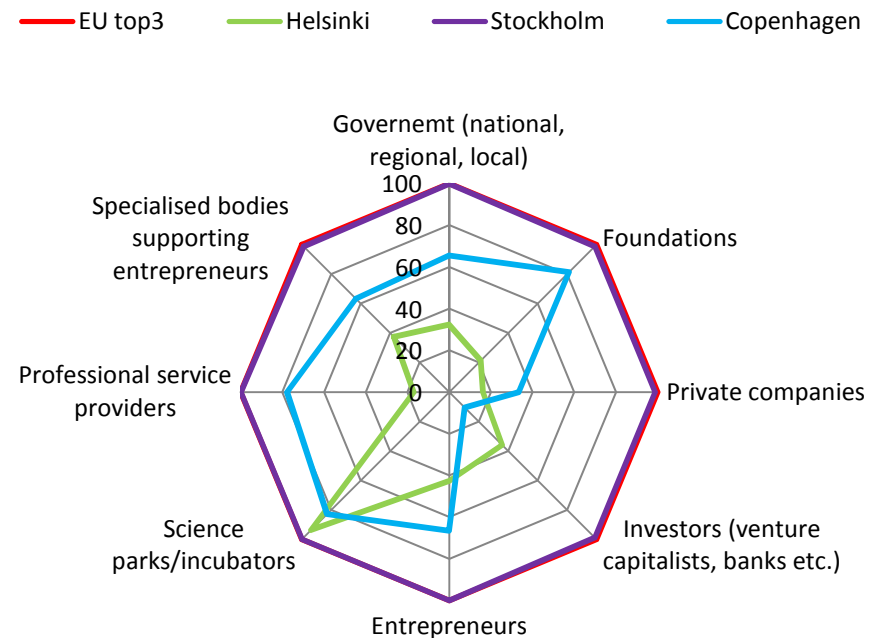
When it comes to the collaboration with the surrounding society Stockholm outperforms Copenhagen and Helsinki.

Stockholm is on the same level as the best performing HEIs in Europe in all areas. However, when it comes to collaboration with science parks and incubators, HEIs in Helsinki perform as well as Stockholm and the EU top 3 (Figure 10).

HEI's in Helsinki are particularly challenged when it comes to collaborating with the broader community in order to improve the institution’s entrepreneurship activities. Compared to other metro-regions and the EU top 3, the institutions have very limited collaboration with public authorities. Furthermore, there is very little collaboration with investors, professional service providers and private companies, and this can slow down or even obstruct entrepreneurial ideas.

There is also room for improvement among Danish institutions. Collaboration with private companies is very limited, and collaboration with investors is virtually non-existing. Increased collaboration of HEIs with business links and other investors could increase entrepreneurial activities at HEI's in Copenhagen.

Figure 10: Collaboration with the wider community to improve the entrepreneurship activities





Outreach - openness

The outreach dimension is also about offering open programs to the wider community. These programs might target existing entrepreneurs who could be interested in further education in entrepreneurship, or even companies looking for an entrepreneurial mindset. Open programs could also educate unemployed people interested in starting their own business.

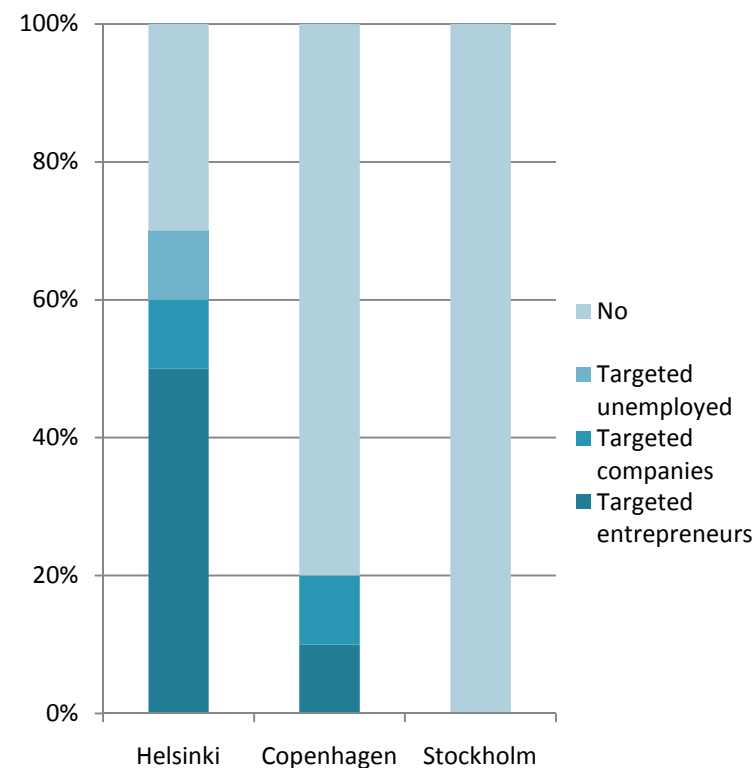
Offering open programs for continued entrepreneurship training can increase the entrepreneurial interest of an even wider group of the population and reach other groups than students at HEIs.

When it comes to outreach activities regarding open programs for targeted entrepreneurs and targeted unemployed, Helsinki outperforms Stockholm and Copenhagen.

HAAGA-HELIA University of Applied Sciences in Helsinki and the Technical University of Denmark in Copenhagen are the only HEIs offering programs of continued training aimed at companies.

The HEIs in Stockholm covered by this survey do not offer any open programs in continued training (Figure 11).

Figure 11: Open programs in continued training in entrepreneurship





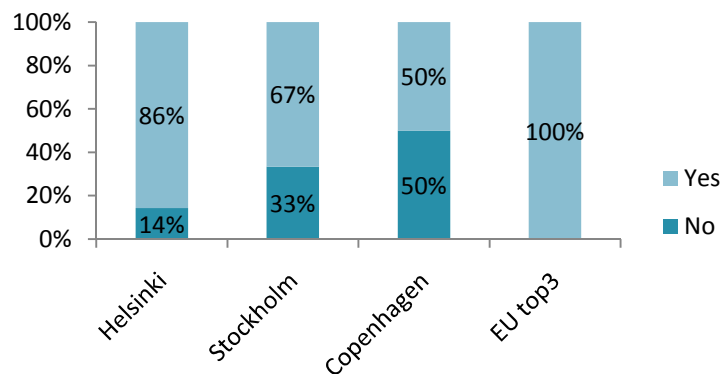
Institutional infrastructure – multifaculty

The dimension of institutional infrastructure has to do with the access to educational “multi faculty” and “facilities”.

Offering cross-faculty and multidisciplinary entrepreneurship activities can be beneficial for both the students changing faculty and the faculty receiving the new students along with new inspiration and a possibility of developing multidisciplinary skills. Further to this, it extends the possibilities for students in a region to choose from several entrepreneurship courses and for students if they can attend entrepreneurship courses at other universities if not offered at their own institution.

All three regions are outperformed by the EU top 3, but Helsinki and Stockholm perform well compared to Copenhagen HEIs when it comes to supporting multidisciplinary activities (Figure 12).

Figure 12: Cross-faculty entrepreneurship activities.

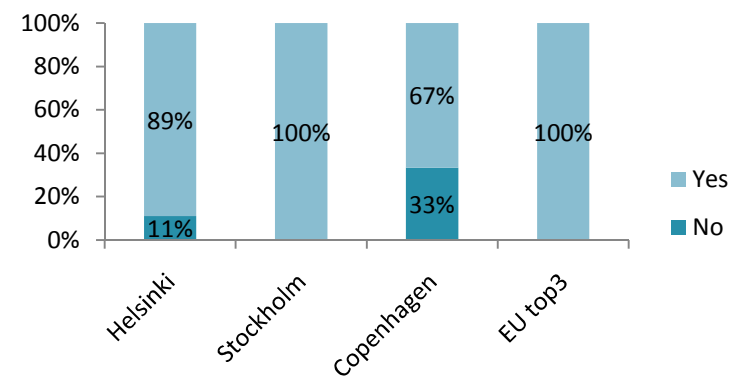


Q: Single faculty institutions excluded, did your institution offer cross-faculty/multidisciplinary entrepreneurship activities in the previous academic year?

Helsinki and Stockholm are performing well when it comes to institutional infrastructure that enables students to attend classes in entrepreneurship at different faculties and have them credited at their own faculty.

This is still a challenge for some students at HEIs in Copenhagen (Figure 13).

Figure 13: Cross-faculty entrepreneurship education?



Q: Single faculty institutions excluded, can all students at your institution take entrepreneurship courses and have them credited to their degree regardless of to which faculty they are connected

Case: Laurea University of Applied Science, Helsinki

A university representing a well-established institutional infrastructure and great interdisciplinary structures is The Laurea University of Applied Science.

At Laurea, the accreditation of entrepreneurial courses is taken a step further by including in the overall strategy that entrepreneurship should be a part of every course. The vision is even quantified into a goal: The number of student-initiated business start-ups annually should be at least ten.

Another area in which Laurea university excels is in cross-faculty entrepreneurship activities.

For the past four years, students from the Laurea university have had the possibility of applying for a short course in entrepreneurship at Cambridge University in the UK. The only requirement for applying to the program is a business plan or a genuine interest in entrepreneurship.

International cross-faculty activities in the field of entrepreneurship can, along with a further development of skills, also provide students with a valuable international network of entrepreneurial students.





Institutional infrastructure - facilities

Institutional infrastructure also covers the facilities that support student, graduates and researcher in realizing their entrepreneurial ideas.

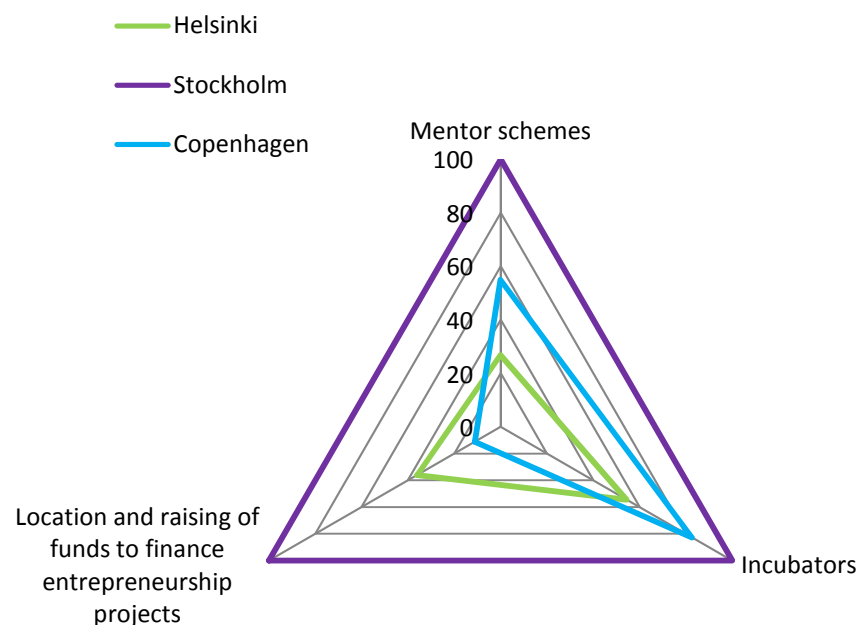
Institutions can support mentor arrangements, incubators and financing activities, beyond the areas of collaboration covered in the “outreach” section.

Top performing HEIs across Europe are all engaged in these types of activities.

The institutions in Stockholm all have an extensive institutional infrastructure and the region outperforms Copenhagen and Helsinki in this dimension.

For the institutions in Copenhagen especially, there seems to be room for improvement when it comes to locating and raising funds for entrepreneurship projects. However, in Copenhagen, the institutional infrastructure is expected to be improved remarkably in the coming years with the launch of the initiative “Next Generation”. The initiative includes several entrepreneurship stakeholders and the three largest universities in the region. For more information, see the case on the following page.

Figure 14: Activities that supports students and researchers in realizing their ideas?



Case: Next Generation, Copenhagen

Next Generation is a new collaborative strategic effort in the Copenhagen metro-region promoting knowledge of entrepreneurship and innovation with the end-goal of creating more new start-up companies and an “entrepreneurial orientation” for students who will be employed in already established companies.

The project includes various collaborating partners including the three largest universities in the region: The University of Copenhagen, Copenhagen Business School, and the Technical University of Denmark, and other stakeholders, such as Venture Cup, Fonden for Entreprenørskab, Symbion Management A/S, Københavns Erhvervscenter (Municipality of Copenhagen Business Center), and Væksthus Hovedstadsregionen (Business Link Greater Copenhagen). The total budget is DKK 36 M over a four year period. The project is funded partly by the European Social Fund (50 percent) the Capitol Region of Denmark (25 percent) and collaborating partners (25 percent).

The project will focus on four areas:

1) Knowledge and academic courses: This focus area is supposed to increase practical entrepreneurship education in traditional education. It is expected that 1,200 students will be introduced to this practical entrepreneurship education and that teachers in the future will continue employing this teaching method in their traditional lessons. Secondly, it is expected that 36 business-related master theses will be written on innovation. Thirdly, an innovation summer school will be established with expected enrollment of 160 students.

2) Awareness: This focus area is established to increase entrepreneurship culture at partner universities. This initiative is supposed to map the current entrepreneurship initiatives, establish student driving entrepreneurship activities, launch two international conferences and organize campaigns with at least 2000 participants.

3) Elite teaching corps: This initiative will establish a corps of 18 academic teachers, lecturing on innovation and entrepreneurship at the highest international level. Furthermore, it is expected that the group during the years will achieve specialized expert knowledge and establish a close collaboration with the business community.

4) Commercialization of ideas in the early phases: This initiative will promote student projects and ideas in the early stages with economic and advisory support to increase the number of students who establish a company themselves. It is expected that 10 percent of the students going through the project have established their own company one year after graduation.

Sources: Jane Søgård Hansen, Project Leader, Next Generation, University of Copenhagen.





Entrepreneurship education in a regional perspective - Summery

The survey conducted on entrepreneurship education and entrepreneurship activities in HEIs in the three metro-regions has provided us with new insights in a number of areas.

- Stockholm generally is the best performing region in the survey, whereas Helsinki and Copenhagen are performing somewhat on the same level. This depends to a large extent on the recent reformation of their education system and the establishing of Stockholm School of Entrepreneurship in 1999 – and also the fact that the institution covers a great percentage of all HEIs in Stockholm. The many initiatives under SSES result in the Stockholm region getting scores close to the top 3 HEIs in Europe. The question here is how many students will be exposed to the activities – it is not possible to estimate at this early stage. However, it can be concluded that the construction holds a great potential for the region in their future entrepreneurship education offers.
- The HEIs in the Copenhagen region are not strong on the teaching parameter – and there are very limited or no requirements imposed on lecturers in entrepreneurship educations. This indicates that entrepreneurship has yet to be transformed into an academic discipline. On the contrary, the institutions in the Copenhagen region have a great focus on outreach activities, whereas there is a potential in, and a demand for, supporting the commercializing of ideas on the HEIs.
- The HEIs in the Helsinki region tend to be more advanced in their structure and there are examples on best case practices. On outreach, however, there is a lot of room for improvement – especially in relation to the interaction with local authorities who only have very limited involvement with the HEIs, but also in relation to the connection between the educational system and the professional service providers.



Venture markets in the metro-regions

New innovative companies are often characterised by having a significant growth potential and by taking a significant risk. These companies will have a particularly strong demand for risk capital in order to realize their business idea and creating economic growth.

Venture capital is risk capital provided for new innovative companies. Private and public agents invest in new companies, eventually expecting a high rate of return on their investments. Thus, venture capital is an important precondition for emerging innovative companies when they launch risky projects.

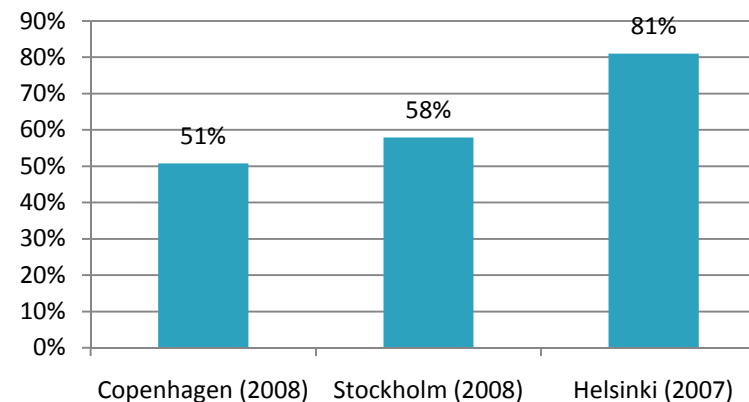
In addition to offering financing, venture capital investors often take an active role in the strategic development and day-to-day running of the company. Investors typically specialize in specific areas such as ICT or Life Science.

Investors will therefore provide the company with valuable competences, such as access to networks, customers, and managements. This infusion of competences contributes to company growth. Entrepreneurs' access to effective venture markets is therefore critical to the growth potential of new companies and to the overall economic growth of a region and a country (Vækstfonden, 2009).

Data shows that the majority of all venture investments within the country is invested in the metropolitan areas (Figure 15).

In 2008 Copenhagen attracted 51 percent of total venture investments in Denmark. Stockholm attracted 58 percent of total venture investments in Sweden, and Helsinki attracted 81 percent of total private equity investments in Finland.

Figure 15: Metro-region's share of total venture capital investments



Source: Vækstfonden, SVCA and FVCA

Note: Finnish data includes all private equity investments, and is therefore not directly comparable to the Swedish and Danish data.



Metro-regional venture portfolios

The regions' relatively high share of total venture investments are in part explained by the presence of one or more specialised clusters.

Copenhagen hosts a highly specialized life science cluster. Helsinki and Stockholm each hosts a specialised ICT cluster (see paper on specialized clusters in the three regions).

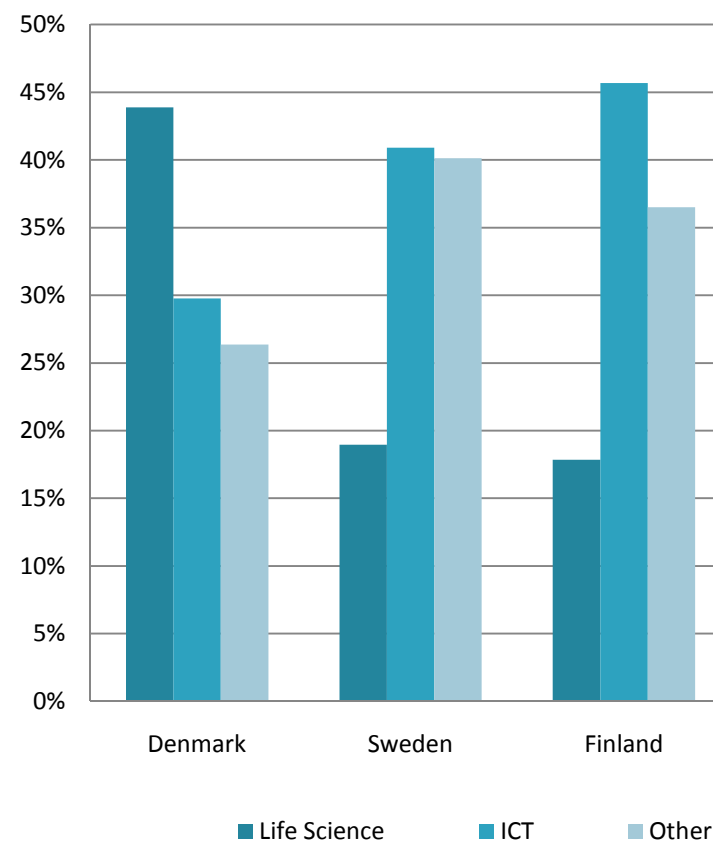
Entrepreneurs within these clusters attract venture capital due to the fact that they are technology-intensive and highly innovative and thus have a need for capital to develop their technology or support their innovation to the market.

An analysis of investment distribution confirms the presence of strong and effective clusters in the respective regions.

In Copenhagen the majority of venture investments is directed towards Life sciences. In Sweden and Finland ICT entrepreneurs attract the majority of venture investments (Figure 16).

An effective venture market is crucial for the competitiveness of clusters and for the prosperity of regions.

Figure 16: National share of venture investments by sectors in 2008



Source: Vækstfonden, SVCA and FVCA



Venture capital investments in regions

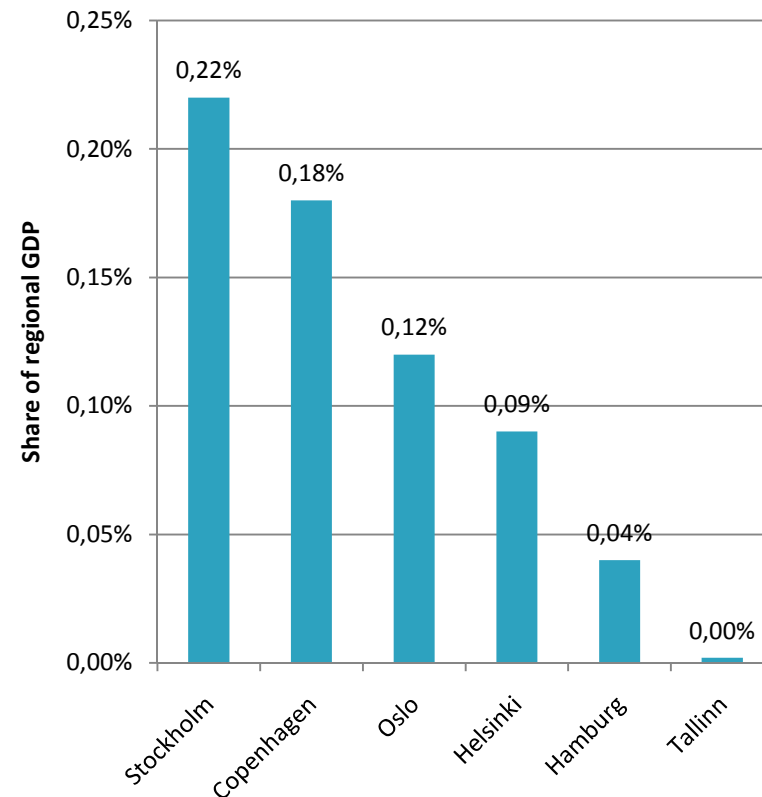
To benchmark the size of individual venture markets we measure regional venture investments as a share of regional GDP.

Compared to the other Nordic regional venture markets Stockholm has the largest venture market. In 2007 venture investments in Stockholm made up 0.22 percent of regional GDP (Figure 17).

With a share of 0.18 Copenhagen has the second largest regional venture market. Helsinki has a relatively smaller venture capital market even though Helsinki attracts the majority of venture capital in Finland.

Stockholm outperforms Copenhagen and Helsinki in terms of the size of regional venture markets.

Figure 17: Venture capital investments as a share of regional GDP, 2007



Source: Mätmodellen, Länsstyrelsen i Stockholms län 2009



Key indicators of regional venture markets

Access to regional indicators on venture markets in the Nordic metro-regions is very limited, due to a decentralized and heterogeneous data collecting process.

As described above, the metro-regions attract the biggest share of venture finance in their respective countries. Hence a description of the national markets also applies to the metro-regions. This has been confirmed by the literature and telephone interviews with representatives from Vækstfonden and SVCA.

Each metro region will be described in the following, based on indicators collected for the Metropolitan Inc.

Share of available venture capital

The share of non-invested capital is measured as the share of capital under management that has not yet been invested. Comparing the share of non-invested capital is a measure of the venture funds' ability to raise new capital and also their ability to make investments.

Exits

Venture funds earn their profits by exiting their portfolio companies. Hence favorable exit options must be present for a venture fund to gain a positive yield from their investment. If no favorable exit options exist, venture funds will be inclined to postpone the exit, thus making more follow-on investments and fewer initial investments.

Initial investments

When assessing the access to venture capital within a country or a region, it is important to know how many companies obtain first time venture finance. Initial investments are measured as the first venture-backed investment into an investee company. The number of initial investments is a proxy for how easy it is for new companies to obtain first time venture financing.

Venture capital investments by stages

Venture capital investments by stages is measured as the amount of capital invested into companies, divided into seed, start-up and expansion.



The Danish venture market

A lack of capital, especially in the seed stage, is one of the main challenges faced by the Copenhagen venture market.

The lack of private capital in early stages has left the seed market dominated by public or publicly funded players. In 2008 Vækstfonden, a public entity, took part in more than 50 percent of all seed investments in Denmark. Over the last couple of years, the lack of new funds has also been said to impede the number of initial investments (Vækstfonden, 2009 and NICe, 2009).

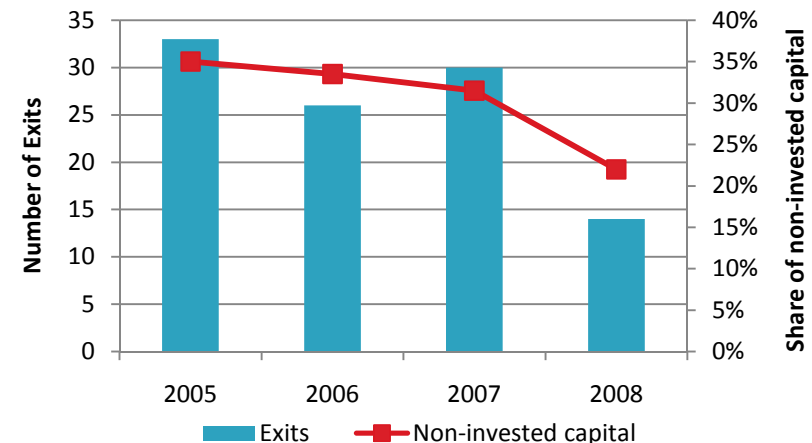
Exits and share of non-invested capital

The share of non-invested capital has fallen from 35 percent in 2005 to 22 percent in 2008. The most significant decline was from 32 percent in 2007 to 22 percent in 2008 (Figure 18). The number of exits has also been declining in that period. In 2005 the Danish venture funds made 33 exits, of which 20 yielded a positive return. In 2008 the number of exits had declined to a total of 14 exits – only 3 of those made a positive return (DVCA, 2009). The negative development in exits from 2007 to 2008 also applies to Sweden and Finland. The lower number of exits is explained by the financial crisis that hit the venture markets in 2008.

Initial investments

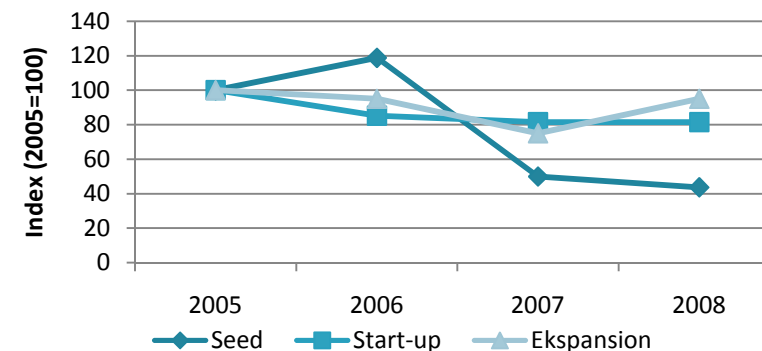
The number of initial investments has been declining during the last couple of years. Initial investments in the seed stage have more than halved (from 16 to 7 investments) (Figure 19). This is due to the declining number of exits and declining share of non-invested capital, as described above (Vækstfonden, 2009).

Figure 18: Danish exits and share of non-invested capital



Source: Vækstfonden og DVCA

Figure 19: Initial investments in Denmark



Source: Vækstfonden



Venture capital investments in Copenhagen

The average share of seed investments of the total venture investments in Copenhagen is 14 percent (€16 M) from 2005 to 2008. From 2007 to 2008 the share of seed investments decreased from 18 percent (€25 M) to 12 percent (€13 M) (Figure 20).

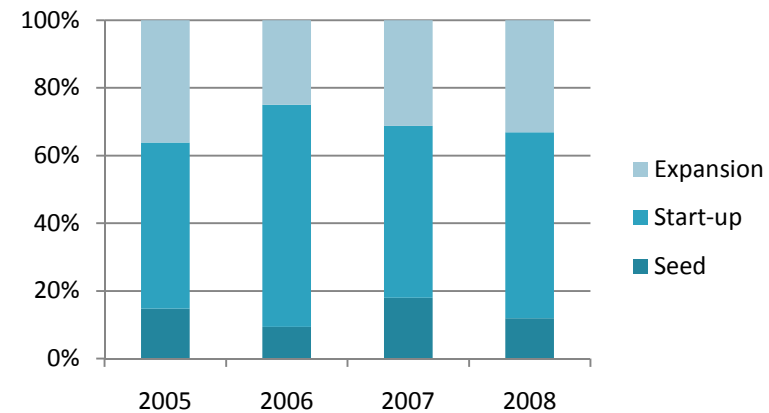
The average share of start-up investments of total venture investments in Copenhagen is 55 percent (€65 M) in the period 2005 to 2008. From 2007 to 2008 the share of start-up investments increases from 51 percent (€71 M) to 55 percent (€59 M).

The average share of expansion investments of total venture investments in Copenhagen is 31 percent (€36 M) from 2005 to 2008. From 2007 to 2008 the share of expansion investments increases from 31 percent (€44 M) to 33 percent (€35 M).

Copenhagen has a relatively large share of seed investments when compared to Stockholm and Finland (Figure 21). Copenhagen performs well also when compared to the European average. The relatively high level of seed investments can be explained by the presence of the highly specialized life science cluster in the region.

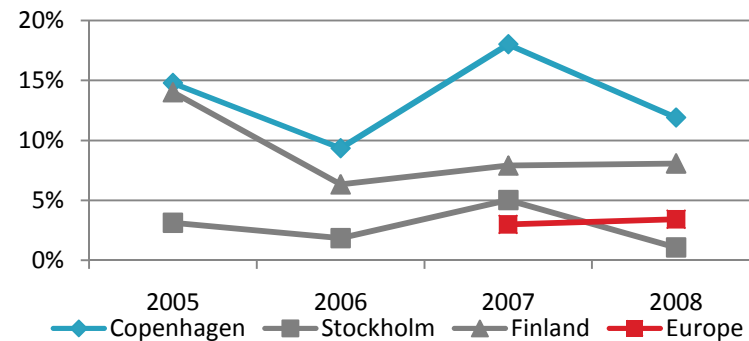
Life science companies are predominantly operating in the early stages, thus demanding more seed capital compared to other industries.

Figure 20: Copenhagen, venture investments by stage



Source: Vækstfonden

Figure 21: Share of Seed investment of total VC investments



Source: Vækstfonden, SVCA, FVCA and EVCA



The Swedish venture market

Sweden has a relatively large venture capital market, although a decline in exits has impacted risk aversion among investors and on the column of available venture capital in Sweden. The seed market, in particular, has been severely hit. However, compared to Copenhagen and Helsinki, the public sector plays a relatively small role in the seed market.

Exits and share of non-invested capital

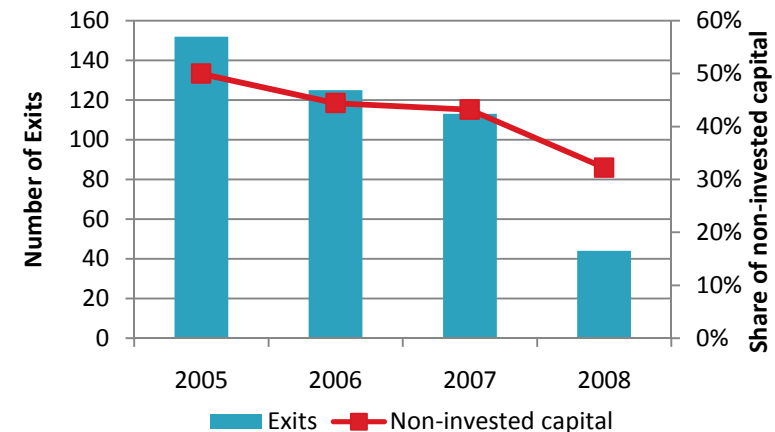
The number of Swedish exits decreased from 152 exits in 2005 to 44 exits in 2008 (Figure 20). As in the Danish exit market, the biggest decline of 61 percent was from 2007 to 2008.

As is the case of Denmark, the share of non-invested capital available to Swedish venture funds declined from 50 percent in 2005 to 32 percent in 2008 (Figure 22).

Initial investments

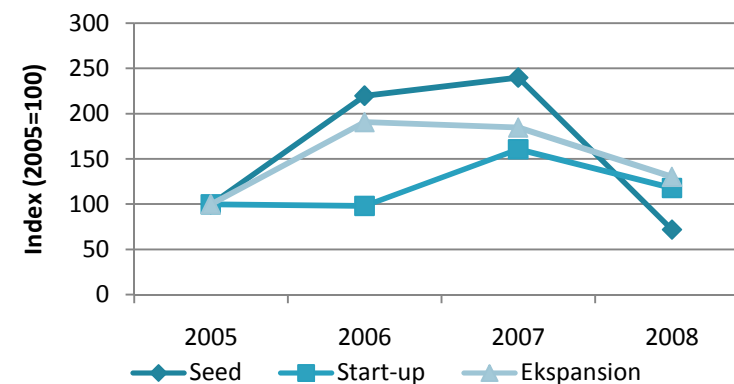
The number of initial investments increased from 2005 to 2007 in all stages (Figure 23). However, the number of initial investments declined dramatically from 2007 to 2008. The decrease is particularly apparent in the seed stage declining from index 240 in 2007 to index 72 in 2008. This translates into a fall from 60 initial seed stage investments in 2007 to 18 in 2008.

Figure 22: Swedish exits and share of invested capital



Source: SVCA, Linus Dagb

Figure 23: Initial investments in Sweden



Source: SVCA, Linus Dagb



Venture capital investments in Stockholm

The average share of seed investments from 2007 to 2008 was 3 percent (€5 M) of total venture investments in Stockholm. From 2007 to 2008 the seed investment share declined from 5 percent (€10 M) to 1 percent (€4 M) (Figure 24).

The average share of start-up investments was 33 percent (€69 M) of total venture investments in Stockholm from 2005 to 2008. The share of start-up investments declined from 40 percent (€37 M) in 2005 to 23 percent (€47 M) in 2006.

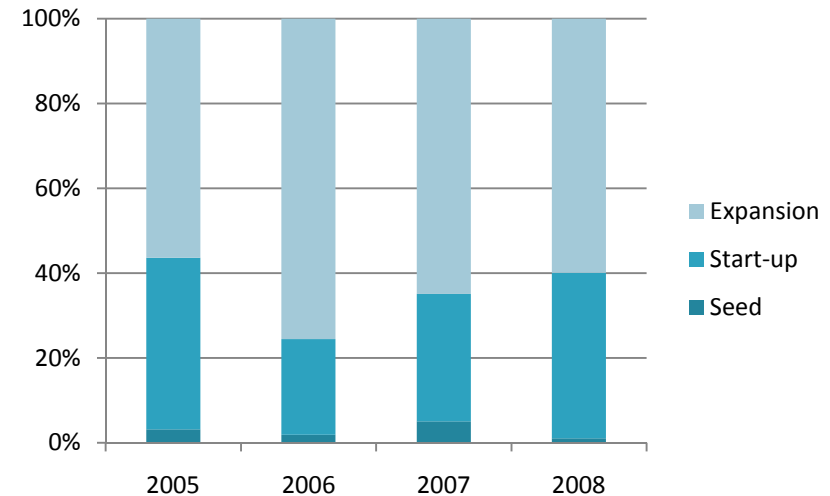
From 2005 to 2008 the average share of expansion investments of total venture investments in Stockholm was 64 percent (€136 M). The share of expansion investments increased from 56 percent (€52 M) in 2005 to 76 percent (€158 M) in 2006.

Compared to Copenhagen and Finland, Stockholm invests a small share in the seed stage and a higher share in the expansion stage. In 2008 Stockholm also ranked lower than the European average in terms of the share of seed investments (Figure 25).

Stockholm's low share of seed investments is partly explained by the presence of a highly specialized ICT cluster in the region. ICT companies mostly demand capital for the later stages such as start-up and expansion, explaining the low share of seed investments and the high share of expansion investments.

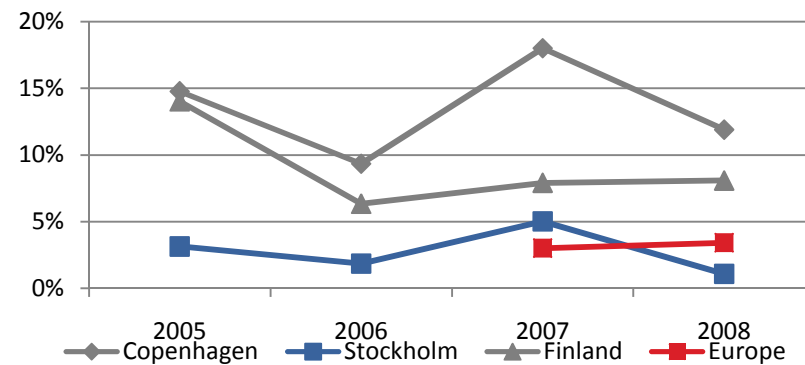
The Innovation system at the Karolinska Institutet (KI Innovation) in Stockholm is a good example of how to facilitate financing of the seed stage. KI Innovation offers a unique system of incubator facilities and access to venture funding for new companies in the Life science industry (see case on next slide).

Figure 24: Stockholm, venture investments by stage



Source: SVCA

Figure 25: Share of Seed investment of total VC investments



Source: Vækstfonden, SVCA, FVCA and EVCA

Case: KI Innovation (KIHAB)

The goal of Karolinska Institutet's innovation system has been to create a system, which can transform scientific achievements into successful growth companies. In 1995, Karolinska Institutet (KI) set up a company to look after its commercial operations, which has since grown into Karolinska Institutet Holding AB and subsidiaries. KIHAB creates the possibility for KI to act commercially. This means that KIHAB can take risks and is also allowed to make profits – without affecting the daily operation at the university.

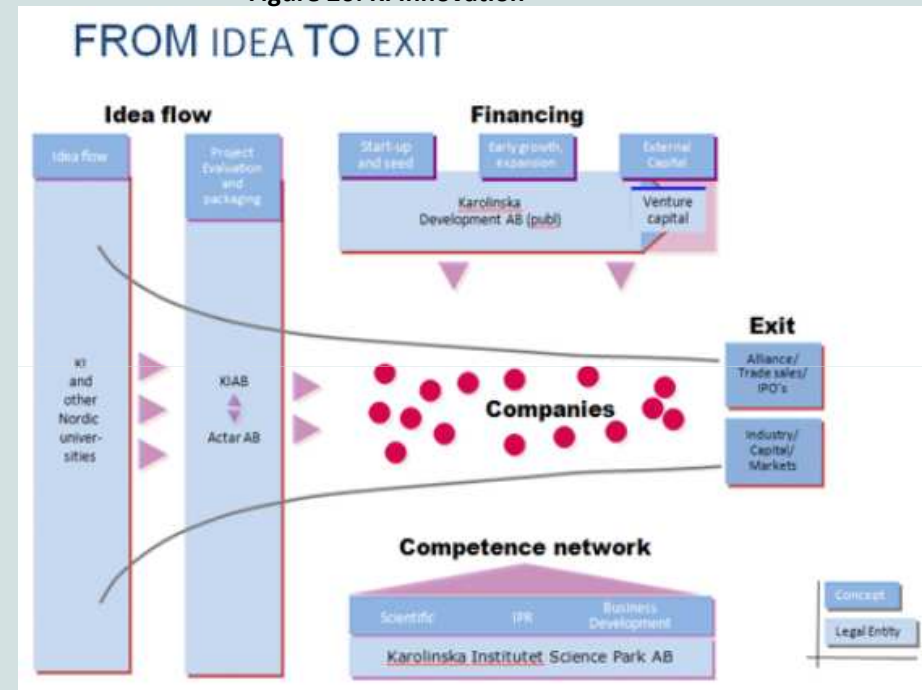
The purpose of KI Innovation is to enable professional evaluation, development and commercialisation of interesting innovations in Life science and Medical technology. KI Innovation is a complete system that evaluates research ideas from the earliest stage and all the way to a possible exit (Figure 26).

Some of the main tasks for KIHAB are to manage stocks in R&D companies, establish joint ownership in promising enterprises, offer good infrastructure to newly started companies and provide administrative, legal, and financial services to approx. 45 companies.

In 2008 KI Innovation had successfully raised a total of SEK 850 M for corporate development in the biotech field.

To date Karolinska Institutet Innovations AB has reviewed more than 1000 academic inventions, created some 40 start-up companies and closed 30 licence agreements.

Figure 26: KI Innovation



Karolinska Development has one of Europe's largest life science portfolios containing around 40 companies of which three already have products on the market; seven have compounds at phase II; and five at phase I.



**Karolinska Institutet
Holding AB**



The Finnish venture market

The main challenge for the Finnish venture market is the lack of private venture capital in the early stages. This has led to Veraventure, a public entity holding more than 80 percent of all early stage market in Finland in 2007 (NICe, 2009).

Another challenge to the Finnish venture market is the poor local exit market for Mergers & Acquisitions and Initial Public Offerings (IPO) (FORA & ICE, 2007).

Exits and share of non-invested capital

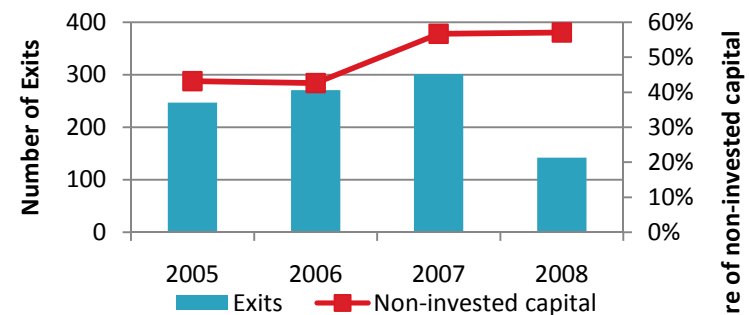
As opposed to Denmark and Sweden, Finland has managed to increase its number of exits from 2005 to 2007. However, Finland saw a 53 percent decline in exits from 2007 to 2008 (Figure 27).

Finland has managed to raise around €1.5 bn. from 2006 to 2007. Thus Finland has experienced an increase in the share of non-invested capital in the period from 44 percent in 2005 to 57 percent in 2008 (Figure 28).

Initial investments

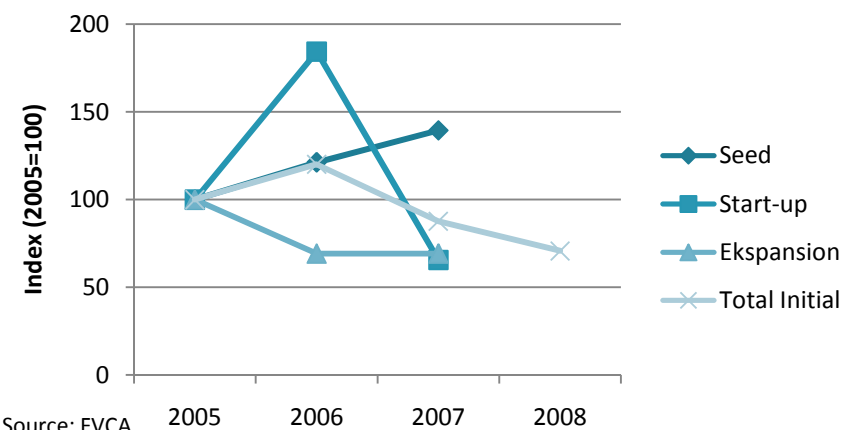
It was only possible to obtain data on initial investments by stages for the years 2005 -2007 (see Figure 28). Instead the total number of initial investments has been included in Figure 28. The development in total initial investments in Finland resembles those of Denmark and Sweden.

Figure 27: Finnish exits and share of non-invested capital



Source: FVCA

Figure 28: Initial investments in Finland



Source: FVCA

Note: The Finnish data covers all Finnish PE-firms, meaning that the activity from venture funds alone are a subset of the data used in Figure 25 and 26.



Venture capital investments in Finland

It has not been possible to obtain data for venture investments by stages for Helsinki, therefore data for Finland is used instead. Since Southern Finland (Helsinki) attracts 81% of all private equity investments in Finland, it is assumed that the numbers represent Helsinki fairly well.

The average share of seed investments from 2005 to 2008 was 9 percent (€16 M) of the total venture investments in Finland (Figure 29).

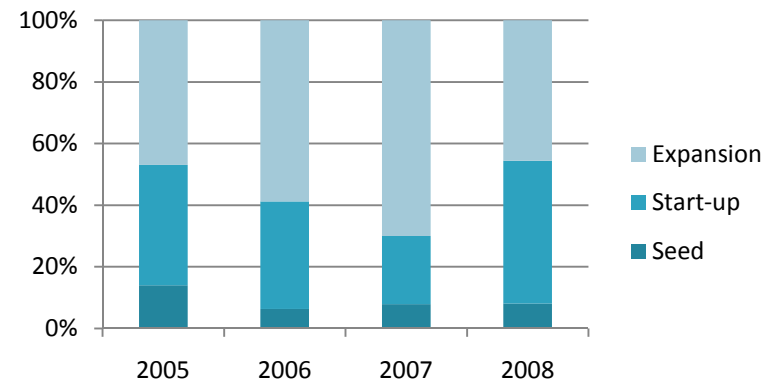
From 2005 to 2008 the average share of start-up investments was 36 percent (€61 M) of the total venture investments in Finland. Finland's share of start-up investments increased from 22 percent (€53 M) in 2007 to 46 percent (€63 M) in 2008.

The average share of expansion investments was 55 percent (€104 M), from 2005 to 2008, of the total venture investments in Finland. The share of expansion investments declined from 70 percent (€168 M) in 2007 to 46 percent (€62 M) in 2008.

In 2005 Finland allocated 14 percent of the total venture investments to the seed stage. Since the share of seed investments has fallen to a lower level (Figure 30). However, Finland outperforms Stockholm and lies above the European average share of seed investments in 2007 and 2008 (Figure 30).

Like Stockholm, Finland hosts a highly specialized ICT cluster.

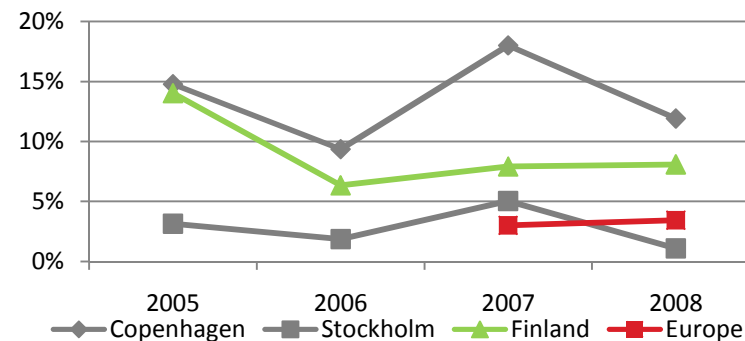
Figure 29: Finland, venture investments by stage



Source: FVCA

Note: Note: In 2008 Expansion were divided into Later stage Venture and Growth. Later stage venture has replaced Expansion in 2008.

Figure 30: Share of Seed investment of total VC investments



Source: Vækstfonden, SVCA, FVCA and EVCA



The Nordic venture markets – Summary

Measuring the Nordic venture markets by the share of invested capital, exits, and initial investments evaluate the frame work conditions for venture capital in the three regions.

Common to all regions is that the venture markets, in terms of exits, have been negatively influenced by the financial crises in 2008.

Another challenge common to all the regions is that the seed stage is dominated by public or publicly funded players. In order to create a self-sufficient venture market, attention needs to be focused on attracting more private venture capital to the early stages, especially the seed stage.

- Denmark has experienced a decline in the share of non-invested capital. In 2008 Denmark had the lowest share of non-invested capital of all the three countries. The number of initial investments has also declined during the period, especially in the seed stage. In 2008 only 7 initial investments were made in Denmark. The negative development characterizing the number of exits, share of non-investments and initial investments are also found at regional level. The amount invested in the seed stage in Copenhagen almost halved from €25 M in 2007 to €13 M in 2008.
- Sweden was also characterized by a falling share of non-invested capital in the period. Although Sweden has a higher share than Denmark, Sweden did experience a steep fall in the number of initial investments in the seed stage from 2007 to 2008. Stockholm has also experienced a large decline in seed stage investments. The amount invested more than halved from € 10 M in 2007 to €4 M in 2008.
- Finland outperformed Denmark and Sweden in terms of share of non-invested capital. In 2008 Finland's share of non-invested capital reached 57 percent as opposed to 22 percent and 32 percent in Denmark and Sweden, respectively. Finland has managed to increase its share of seed investments from 7.9 percent in 2007 to 8.1 percent in 2008.

Entrepreneurial initiatives



The assessment of framework conditions for entrepreneurship education and venture capital in the metro-regions has presented some of the challenges faced by the regions, but also drawn attention to best practice case studies, from which the regions can learn from each other.

The next pages will briefly present some entrepreneurial initiatives from the three regions, inspiring them to consider new approaches to developing framework conditions for their metro-regions. The purpose is not to present an exhaustive list of initiatives, but rather to offer a source of inspiration and knowledge-sharing.

Input to the list is mainly based on contributions from FORA's partners in the metropolitan consortium.





Entrepreneurial initiatives - Helsinki

Helsinki School of Creative Entrepreneurship (HSCE) was a initiative like SSES, between the HEI's now constituting the Aalto University, although being way smaller in scope and financing. As the participating schools merged into one, the purpose of HSCE diminished and thus it was abolished in late 2009. However, one of the projects diverted from HSCE became *Aalto Entrepreneurship Society*, which is an organization initiated and run by students. According to the former director of HSCE it is the largest and most active of its kind.

The organization hosts activities for students who want to know more about entrepreneurship and participate in entrepreneurial activities, e.g. the venture track that supports the entrepreneur in all the first phases of development: a brainstorming phase in which the entrepreneur can meet with relevant people knowledgeable about entrepreneurship and discuss ideas (*Think*), a phase of achieving awareness of the idea (*Sell*), a phase of developing the idea by discussing it with experienced industry managers and other entrepreneurs. A weekend-long camp and a five week boot camp is offered in the third phase (*Develop*). The last phase (if successful after the five weeks of intensive boot camp) emphasises funding, further coaching and offers office space at the "Garage" (*Accelerate*).

Beside student-run entrepreneurial activities, Helsinki provides various incubator services: *Aalto University Start-up Center* and *Arabus* which supports entrepreneurs mainly within the creative industry with tailor-made programs for each individual company in different development phases. The center use of the Aalto University's facilities.

EnterpriseHelsinki is the Helsinki region's service center for start-ups and has been operating since 1992. They provide a diversified portfolio of advisory services for entrepreneurs, such as advice on the making a proper business plan, achieving funding, assurance and accounting matters, and later on, in the acceleration phase, the entrepreneurs can get attached to an investor who advises the company as to what to invest the "free" capital in and gives general support regarding other strategic decisions.

The Enterprising Future project and the Helsinki region incubators network is a third initiative by the Employment and Economic Development Centre for Uusimaa with an annual budget of 3 M euro promoting business idea consulting via their network of specialized incubators in the region. They provide services to 700 start-ups each year.

Helsinki Business and Science Park (HBSP) likewise facilitates incubator services for start-ups in the field of biotechnology, drug development and diagnostics, food, and environmental technology for research mainly originated at University of Helsinki. The science park provides laboratory services and various business-related services in three phases: pre-incubator, incubator and accelerate.

In February 2010, the EU Committee of Regions named the Helsinki Region the European Entrepreneurial Region 2012 for its plan of action promoting entrepreneurship.



Entrepreneurial initiatives - Copenhagen

Business Link Greater Copenhagen (Væksthus Hovedstadsregionen) is part of a national incubator initiative funded by the National Agency of Enterprise and Construction and owned by the 29 municipalities in the Capital Region. They provide a diversified portfolio of advisory services for high-growth start-ups in the development phases and employ 45 people, mainly consultants with business experience.

Scion DTU is Denmark's largest university-based science park including 170 companies and 4000 employees. The science park is owned by the Technical University of Denmark (DTU), and the affiliated companies mainly develop products/services concerning biotechnology, environmental technology, IT, nano- and microtechnology. The start-up companies of the science park are free to benefit from the park's long-term relationship with the Technical University. Apart from the strong ties to the university, the park offers offices/laboratories and is also able to advise companies on various business management issues.

Attached to the Scion DTU is *DTU Symbion Innovation* which assists companies within Symbion's and Scion DTU's science parks with venture capital in the Øresund Region. DTU Symbion Innovation is working closely with the largest Danish private venture capital fund, Seed Capital, who manages euro 130 M, investing in Life science, ICT, and Cleantech companies in the Copenhagen capital region and Southern Sweden.

Symbion has also initiated the *Accelerace* program for the best and most promising entrepreneurs, providing a free five month strategy program and a twelve month phase for executing the strategy. The company is closely supported and advised throughout the process.

Copenhagen School of Entrepreneurship is an umbrella network at the Copenhagen Business School (CBS) for students who want to access the seven independent entrepreneurship organizations under the umbrella. Among the organizations are *Idea House*, a student network in which students can discuss their entrepreneurial ideas; *Venture cup*, a national competition in the creation of an entrepreneurial idea (also present in the other Nordic countries), awarding 400,000 DKK and subsequent advice and consulting services for the best performers; two student networks that work with entrepreneurship, *Stardust* and *Develop* – from different angles, however. Finally there is the *Faculty of Innovation and Entrepreneurship* at CBS and *Øresund Entrepreneurship*.

At the University of Copenhagen the *Katapult* initiative has been established to support students with innovative or entrepreneurial ideas by either offering advice, mentoring, lab facilities or provide funding opportunities etc.

The new major regional Initiative *Next Generation* (presented earlier), which include most of the above partners, is embedded in the Next Generation project and thus a better coordinated regional strategy and hopefully a more focused and efficient effort should be achieved.



Entrepreneurial initiatives – Stockholm

Sweden has various initiatives aimed at promoting entrepreneurship nationally as well as in the metro-region. One of them is The Swedish Governmental Agency for Innovation Systems, Vinnova, which also coordinates the cluster policy effort (see section on cluster initiatives). Another is the Swedish Agency for Economic and Regional Growth, Tillväxtverket, a national initiative promoting growth and industrial development.

Vinnova has various programs for SME's, including some which are aimed at new enterprises, such as VINN NU, a national competition for new R&D enterprises. SEK300,000 is awarded to each of the 20 winners. Another program is Forska&Väx which promotes R&D in small companies in general with a budget of M SEK 120 in 2009. Another program is aimed at verifying and assessing the product/service before it enter the market, thus aiming at reducing market risk.

Tillväxtverket also provides several entrepreneurial programs, in particular programs targeting specific groups, e.g. women or immigrants as entrepreneurs. The former is supported by M SEK 87 and the latter M SEK 60 .

Connect Sverige is a another national initiative supported by various partners, among others Vinnova and Tillväxtverket. The non-profit network organisation has six regional offices in Sweden, one of them in the east area of Sweden, thus covering the metropolitan area. The companies targeted are mainly entrepreneurs in the growth phase.

Connect East is in contact with 250 companies each year, and 140 of these usually reach the “stepping stone” phase, which makes use of Connect’s network of skilled business managers preparing the entrepreneur to meet with investors at an “investment lunch”. Among the 58 investors, 30 business angels have invested 18 M SEK over the last two years with an average of SEK 500,000. SSES is partnering with Connect.

Another partner to Conenct East is *Innovationsbron*, which is a national initiative aimed at promoting innovators and entrepreneurs, commercialising their ideas through incubator-services, investing seed capital in companies (max M SEK 2.5. per company) and in general develop the business idea. Various independent incubators participate in the incubator program, providing services to entrepreneurs.

Both Innovationsbron and Connect Sverige are partnering with *ALMI Invest* who manages SEK 1 bn. (50 percent injected from EU structural funds) nationally. In Stockholm, 435 companies were granted loans totalling SEK 284 M, besides being offered valuable advise for entrepreneurs and innovators.

For an extended catalogue of entrepreneurial initiatives and venture financing in the Stockholm County, please visit entrepreneursthlm.nu



Appendix 1: Method survey

In order to benchmark the entrepreneurship education and the entrepreneurship activities in Stockholm, Copenhagen, Helsinki and EU top3 regional indexes are composed. The regional indexes express a weighted average of the individual HEI in that region for each dimension or question. The Metropolitan InC consortium members have helped to identify the HEIs in their region and the key person on entrepreneurship at each of the institutions.

Ranking:

The following method is used to compose the regional indexes:

1. Each institution gets a score for each question, based on a point system, see appendix 3.
2. The institution's score is weighted with the number of student at the institution. The reasoning behind this is that a large institution's entrepreneurship will have an impact on more students and potential new entrepreneurs than a small institution will. And this again means that the way the large institution work with entrepreneurship education will have a greater impact on the regions overall measure of how entrepreneurial the region's HEI are.

This means that for example Stockholm School of Entrepreneurship, which covers 85 percent of the students at the HEI in Stockholm, may be overestimated in the Stockholm regional index, because the rest of the institutions are relative small, see appendix 3.

On the other hand, would it also draw a misleading picture of the regions entrepreneurship education if an institution with 100 students has the same weight as an institution with 40.000 students.

Is an index composed by more than one question each questions have equally weight.

3. An overall score for each region on each dimension or question are made as a weighted average of the institutions that have replied to the question.
4. In order to rank the regions on the four dimensions (questions), we have used the following method:

Distance from the group leader, which assigns 100 to the leading region and other regions are ranked as percentage points away from the leader

The institution indexes in appendix 3 are not weighted with the number of students, their present the institution's total score. The method used to rank the institutions is the same as the one used to rank the regional indexes.



Appendix 2 – Survey questions

Survey on entrepreneurship education in higher education institutions

The purpose of this survey is to obtain new insights on entrepreneurship education and the entrepreneurship activities in higher education institutions in metro-regions.

The survey consists of 13 questions and will address the following aspects:

Your institution's entrepreneurship activities and number of students

Teaching methods

Outreach activities

The institutional infrastructure

The term "your institution" refers to all departments or faculties at your institution.

Definition of entrepreneurship education:

We define entrepreneurship education as more than general business and economic studies, as its goal is to promote creativity, innovation and self-employment.

When filling out the survey, you should keep in mind that in this survey entrepreneurship education will include some of the following elements:

Developing those personal attributes and horizontal skills that form the basis of entrepreneurial mindset and behaviour

Raising the awareness of students about self-employment and entrepreneurship as possible career options

Work on concrete enterprise projects and activities, for instance students running mini companies

Providing specific business skills and knowledge of how to start and successfully a company

In advance we would like to thank you for your participation. Your input to the regional strategic work is greatly appreciated.

ENTREPRENEURSHIP ACTIVITIES

1. Does your institution offer courses in entrepreneurship education?

- Yes, to a limited extent
- Yes, to some extent
- Yes, to a significant extent
- No
- Don't know

1.1. If "yes" to question 1.

Please estimate the share of the total number of students that in the previous academic year have participated in courses in entrepreneurship education?

- < 5 pct.
- 5 pct - < 15 pct.
- > 15 pct.

1.2. If yes to question 1.

How often does your institution make use of the following main teaching methods in the entrepreneurship education?

Categories	Often	Sometimes	Rarely	Never	Don't know
Case studies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Entrepreneurs/practitioners in the classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project teams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Company visits	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Venture simulation/mini companies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1.3. if yes to 1. Does your institution offer a degree in entrepreneurship education?

- Yes, a bachelor degree
- Yes, a master or MBA degree
- Yes, a ph.d./doctorate degree
- Other
- No
- Don't know

If "other" please specify



Appendix 2 – Survey questions

2. Does your institution offer activities that support students, graduates and researchers in realising their entrepreneurial ideas?

- Yes, mentor schemes
- Yes, incubators
- Yes, location and raising of funds to finance entrepreneurship projects
- Other
- No
- Don't know

If "other" please specify

3. Does your institution at the present time collaborate with one or more of the following stakeholders to improve your institution's entrepreneurship activities?

- Yes, government (national/regional/local)
- Yes, foundations
- Yes, private companies
- Yes, investors (venture capitalists, banks etc.)
- Yes, entrepreneurs
- Yes, science parks/incubators
- Yes, professional service providers
- Yes, specialised bodies supporting entrepreneurs
- Other stakeholders
- No
- Don't know

If "other stakeholders" please specify

4. Which person has the primary responsibility for the entrepreneurship education at the strategic level at your institution?

- Principal/rector/provost
- Pro-vice chancellor
- Dean
- Professor
- Lecturer
- Other
- Don't know

If "other" please specify

5. Did your institution offer cross-faculty/multidisciplinary entrepreneurship activities in the previous academic year?

- Yes
- No
- Not relevant, we are a single faculty institution
- Don't know

6. Can all students at your institution take entrepreneurship courses and have them credited to their degree regardless of to which faculty they are connected?

- Yes
- No
- Not relevant, we are a single faculty institution
- Don't know

7. Does your institution require that academic staff members teaching entrepreneurship: It is possible to tick off more than one answer

- have experience with entrepreneurship
- continually receive training in teaching entrepreneurship
- Others requirements
- No formal requirements
- Don't know

If "other requirements" please specify

8. Does your institution offer open programmes in continued training in entrepreneurship? It is possible to tick off more than one answer

- Yes, targeted entrepreneurs
- Yes, targeted companies
- Yes, targeted unemployed
- Yes, targeted others
- No
- Don't know

If "yes, targeted others" please specify

9. Does your institution host competitions or other activities to promote entrepreneurship?

- Yes
- No
- Do not know



Appendix 2 – Survey questions

10. Additional comments on your institution's entrepreneurship education and activities:

You have finished the survey. Thank you for your help.

The indexes are composed by using point system, which reward if the institution has the activity and has it to a great extent.

The numbers of students at each institution are used to compose the region index. The reason is that larger institution's education and activities may have a greater impact on the regions framework condition for entrepreneurship.

Categories	Point
Yes	1
No	0
Don't no (the interpretation is, that a don't no indicates that the area is not important since the person do not know)	0
Omfang af aktivitet	
Yes, to a significant extent/yes, often/ 15 <	3
Yes, to some extent/yes, sometimes/5 til 15 pct.	2
Yes, to a limited extent/yes, rarely/u. 5 pct.	1
1 aktivitet	2
Yes, 1 activity (case studies, collaboration with)	1
Yes, 2 activitles	2
Yes, 3 activitles	3
Question 4: Top management indicates entrepreneurship get's a greater priority	
Principal/rector/provost	2
Pro-vice chancellor	1
Dean	1
Professor	0,5
Lecturer	0,5
Other	0,5
Question 5 and 6	
Yes	1
No	0
Not relevant, we are a single faculty institution	1
Don't know	0
Question 7: to make It comparable with the EU Survey	
Have experience with entrepreneurship	1
Continually receive training in teaching entrepreneurship	1
Other requirements	0
No formal requirements	0
Don't know	0
All questions have the same weight, and two questions in a index gets the same weight	



Appendix 3 – Institutions in the regions

Stockholm

Institution	Region	Completed full survey	Do not have Have not answered or entrepreneurship education	Number of fulltime students* in 2008
Röda Korsets Högskola	Länsstyrelsen i Stockholm Län		x	416
Kth - Vetenskap Och Kunst	Länsstyrelsen i Stockholm Län	SSES		17.131
Södertörns Högskola	Länsstyrelsen i Stockholm Län		x	5.662
Ericastiftelsen	Länsstyrelsen i Stockholm Län		x	36
Stockholms Musikpedagogiska Institut	Länsstyrelsen i Stockholm Län	x		71
Karolinska Institutet	Länsstyrelsen i Stockholm Län	SSES		7.450
Ersta Sköndal Högskola	Länsstyrelsen i Stockholm Län		x	1.000
Sophiahemmets Högskola	Länsstyrelsen i Stockholm Län		x	362
Gymnastik Och Idrottshögskolan I Stockholm	Länsstyrelsen i Stockholm Län		x	426
Kungliga Musikhögskolan I Stockholm	Länsstyrelsen i Stockholm Län	x		651
Dramatiska Institutet	Länsstyrelsen i Stockholm Län		x	164
Operahögskolan I Stockholm	Länsstyrelsen i Stockholm Län	x		36
Kungliga Konsthögskolan	Länsstyrelsen i Stockholm Län		x	231
Försvarshögskolan	Länsstyrelsen i Stockholm Län		x	204
Stockholm School Of Entrepreneurship	Länsstyrelsen i Stockholm Län	Yes		
Händelshögskolan I Stockholm	Länsstyrelsen i Stockholm Län	SSES		1.621
Teologiska Högskolan I Stockholm	Länsstyrelsen i Stockholm Län		x	201
Konstfack	Länsstyrelsen i Stockholm Län	SSES		601
Stockholms Universitet	Länsstyrelsen i Stockholm Län	SSES		28.858
Danshögskolan	Länsstyrelsen i Stockholm Län		x	179
Total number of students in the survey sample				65.300

Source: Stockholms Länsstyrelsen and

*Number of full-time students, undergraduate and graduate level and Ph -D in 2008



Appendix 3 – Institutions in the regions

Helsinki

Institution	Region	Completed full survey	Have not answered or completed the survey	Do not have entrepreneurship education	Number of fulltime students* in 2008
Laurea- University of Applied Science	Uudenmaan Liitto and Culminatum Innovation	x			2574,5
University Of Helsinki	Uudenmaan Liitto and Culminatum Innovation	x			23485
Theatre Academy Helsinki	Uudenmaan Liitto and Culminatum Innovation			x	305,5
Helsinki University of Science and Technology	Uudenmaan Liitto and Culminatum Innovation	x			8922,5
Haaga-Helia University of Applied Science	Uudenmaan Liitto and Culminatum Innovation	x			6166,5
Finnish Academy Of Fine Arts	Uudenmaan Liitto and Culminatum Innovation	x			198
Helsinki Metropolia University of Applied Sciences	Uudenmaan Liitto and Culminatum Innovation	x			10749
Sibelius - Academy	Uudenmaan Liitto and Culminatum Innovation	x			936,5
Diakonia-Ammattikorkeakoulu	Uudenmaan Liitto and Culminatum Innovation	x			1028
HUMAK University of Applied Science	Uudenmaan Liitto and Culminatum Innovation	x			213
Sweedish School Of Economics And Business Administration	Uudenmaan Liitto and Culminatum Innovation		x		1442,5
Arcada - University of Applied Science	Uudenmaan Liitto and Culminatum Innovation	x			2700
Aalto University (Not included – launched in 2010)	Uudenmaan Liitto and Culminatum Innovation		x		12711
Total number of students in the survey sample					56973

*Number of full-time students, undergraduate and graduate level and Ph -D in 2008



Appendix 3 – Institutions in the regions

Copenhagen

Institution	Region	Completed full survey	Do not have answered or entrepreneurship completed the survey education	Number of fulltime students* in 2008
Metropolitan University College	Region Hovedstaden	x		10000
The Danish National School of Theatre	Region Hovedstaden		x	120
Københavns Maskinmesterskole & Elinstallatørskole	Region Hovedstaden		x	284
The Royal Danish Academy of Music	Region Hovedstaden	x		360
The Royal Danish Academy of Fine Arts - The School of Conservation	Region Hovedstaden		x	106
The Royal Danish Academy of Fine Arts' Schools of Visual Arts	Region Hovedstaden	x		200
Professionshøjskolen København	Region Hovedstaden		x	8783
The Danish Design School	Region Hovedstaden	x		535
Copenhagen University College of Engineering	Region Hovedstaden		x	1490,69
The National Film School of Denmark	Region Hovedstaden		x	100
Københavns Tekniske Skole	Region Hovedstaden		x	5.368
Rhythmic Music Conservatory	Region Hovedstaden		x	200
University of Copenhagen	Region Hovedstaden	x		40000
Technical University of Denmark (DTU)	Region Hovedstaden	x		8000
The IT-University of Copenhagen	Region Hovedstaden	x		1535
Royal School of Library and Information Science	Region Hovedstaden		x	822
CBS	Region Hovedstaden	x		13261
The Royal Danish Academy of Fine Arts - School of Architecture	Region Hovedstaden	x		913
Total number of students in the survey sample				75926

*Number of full-time students, undergraduate and graduate level and Ph -D in 2008

Sources



Bibliography:

Ahmad, N. and A. Hoffman (2008), A Framework for Addressing and Measuring Entrepreneurship, OECD Statistics Working Papers, OECD publishing, 2008/2,

The Danish Enterprise and Construction Authority, Iværksætterindeks 2009 – Villkår for iværksættere i Danmark, 2009

DVCA, Det danske venturemarked – investeringer og forventninger, Analyse 4. kvartal 2008, 2009

Economic Forum Switzerland, Educating the Next Wave of Entrepreneurs - Unlocking entrepreneurial capabilities to meet the global challenges of the 21st Century - A Report of the Global Education Initiative, World April 2009

Erkko Autio, Professor, Imperial College London & John Heebøll, Danmarks Tekniske Universitet, Effekten af iværksætterundervisning på de videregående uddannelser, September 2008

Erkko Autio, Professor, Imperial College Tanaka School of Business, Entrepreneurship Teaching in the Øresund and Copenhagen Regions, October 2007

Eurostat, Indicators on high growth enterprises (Number of gazelles measured in employment)", 2010

Ewing Marion Kauffman Foundation, Zoltan Acs et. al, Entrepreneurship and Urban Success: Toward a Policy Consensus, February 2008

FORA, Et benchmark studie af venturemarkedet – Hvad kan Danmark lære? 2004

FORA, Nordic Council of Ministers, Nordic Innovation Monitor, 2009

FORA & ICE, The Finnish Risk Capital Market and the Role of Government Policies, 2007

FCVA Yearbook 2005 to 2009

IRIS Group, Vejen til en stærk biotekkllynge i Hovedstadsregionen – En analyse af rammebetingelser i internationalt førende biotek regioner, Maj 2009

Länsstyrelsen i Stockholms län, Stockhomsregionens förmåga till förnyelse och utveckling, 2009

NiCe, Challenges and Initiatives for the Nordic Seed Stage – Promoting a common Nordic seed capital market, 2009

NIRAS Consultants, FORA, ECON Pöyry, Survey of Entrepreneurship Education in Higher Education in Europe, October 2008

OECD, the OECD innovation strategy: innovation to strengthen growth and address global and social challenges, 2010

OECD-Eurostat, Entrepreneurship Indicators Programme - Measuring Entrepreneurship – A Collection of Indicators, 2009

SVCA, Riskkapitalbolagens aktiviteter och finansiering i tidiga skeden 2008 – kvartal 4 samt helår 2008, 2009

SVCA, Riskkapitalbolagens aktiviteter och finansiering i tidiga skeden 2007 – kvartal 4 samt helår 2007, 2007

SVCA, Riskkapitalbolagens aktiviteter och annan finansiering i tidiga skeden 2006 – kvartal 4 samt helår 2006, 2006

SVCA, Riskkapitalbolagens aktiviteter 2005 – kvartal 4 samt helår 2005, 2005

Vækstfonden, Det danske marked for venturekapital og buyout, 2009

Vækstfonden, Venturekapital som vækstdynamo – Effekter af venturekapital i Danmark, 2006



Sources

Web-pages:

Eurostat: "Business Demography" (excel-ark); 2010:

http://epp.eurostat.ec.europa.eu/portal/page/portal/european_business/special_topics/business_demography

FVCA homepage: <http://www.fvca.fi/?pageid=45&parent0=6>

KI Innovation homepage: <http://ki.se/ki/jsp/polopoly.jsp?d=17314&l=en> &

<http://ki.se/ki/jsp/polopoly.jsp?d=130&a=57995&l=en&newsdep=130>

Karolinska Institutet Holding AB homepage: http://www.holding.ki.se/index_en.html

Survey data:

Survey conducted by FORA, see technical paper and database for detailed information

Personal references:

Jacob Borup, Vækstfonden

Linus Dahg, SVCA