



Supporting the entrepreneurial potential of higher education

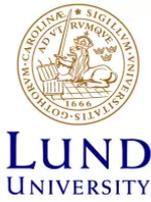
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1 Lund University, Sweden: Embedding entrepreneurship in a regional context (updated 2024)

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Abstract



Lund University (LU) is located close to a science park in a region with numerous incubators and start-ups in a rather densely populated area. The University uses its strategic location as a source of competitive advantage by strongly collaborating with local established companies, start-ups, student organisations, support services and incubators. The institution with the strongest link to entrepreneurship at LU is the Sten K. Johnson Centre for Entrepreneurship (SKJCE). SKJCE offers a variety of demand driven courses at LU, but also undergraduate and graduate programmes where students from different disciplinary backgrounds are admitted. Of particular importance is the International Master's Programme in Entrepreneurship and Innovation (MPEI). Within this highly competitive MPEI a focus is set on action-reflection teaching methods while close connection with companies and support systems in the region is aspired. LU also offers several extra-curricular activities in entrepreneurship education. Examples include awards and scholarships provided to students based on pitched business ideas and entrepreneurship-oriented initiatives such as VentureLab (a student incubator that is part of LU Innovation and inspires and gives business advice), Venture Cup (a business plan competition) and FENA (a student association for entrepreneurship).

Case study fact sheet

Full name of the university and location:	Lund University, Sweden
Legal status	Public University
Location (if applicable: branches):	Campuses are situated in Lund, Malmö, Helsingborg and Ljunbyhed in Sweden
Year of foundation:	1666
Number of students in 2013:	47,000
Number of employees in 2013:	Total employees: 8,880 <ul style="list-style-type: none"> • Professors: 750 • Lecturers, researchers and doctoral students: 4,300 • Technical and administrative staff: 3,000
Academic profile:	LU offers one of the broadest ranges of programmes and courses in Scandinavia, based on cross-disciplinary, cutting-edge research. The compact university campus encourages networking as well as scientific breakthroughs and innovations. In terms of its education, LU wants to educate “the knowledge generators, problem solvers and leaders of tomorrow” by teaching students “how to think freely, creatively and critically, and to develop their ability to work across disciplinary boundaries and externally to tackle demanding problems”.
Entrepreneurial profile:	At LU, an action-oriented approach is employed for entrepreneurship education. Simultaneously, analytical thinking is fostered and knowledge from contemporary research is deeply embedded into entrepreneurship education. This teaching approach has been themed as “action-reflection”. Connections to companies and support systems in the region are close.
Activities focused in this case study:	Curricular and extra-curricular activities, external relationships related to entrepreneurship education
Case contact person(s):	Prof. Diamanto Politis, Professor in Entrepreneurship at SKJCE and Director of SKJCE, LUSEM, LU

Information included in this case study is from year 2024 unless stated differently.

1.1 The university's entrepreneurship education profile

1.1.1 The university's overall approach to entrepreneurship education

LU is located in southern Sweden within the Danish-Swedish Öresund region. Sweden is ranked as the most creative country in the world and as the second-best country in the world in terms of the provision of its higher education.¹ The Öresund region counts 3.8 million inhabitants in Denmark and Sweden and is regarded as one of the major growth regions in Europe. This region is home to twelve universities, 155,000 students, 12,000 researchers and the highest concentration of high-qualified workers in northern Europe. It is therefore one of Europe's most creative hubs for science, innovation and culture. The Lund region itself is the second largest hub in Sweden behind Stockholm. More than 1,000 companies are formed in Lund each year out of which a majority represents consultancies. The innovation system in the Lund region encompasses a total of around 50 mostly public and semi-public actors.

LU consists of eight faculties, namely School of Economics and Management, Engineering, Fine and Performing Arts, Humanities and Theology, Law, Medicine, Science and Social Science. Most of these faculties are located in Lund itself. Further locations of LU include Malmö, Helsingborg and Ljungbyhed. Within Lund, parts of the university are situated close to the IDEON Science Park in Lund (see section 1.5). IDEON Science Park represents one of Scandinavia's largest science parks and is thus a vibrant, innovative and unique environment for entrepreneurship education. Deep integration and close collaboration between LU and external stakeholders that are based at IDEON Science Park, such as local enterprises, student organisations and incubators can be observed. This creates a strong supporting environment for (student) entrepreneurs.

LU was founded in 1666 and possessed approximately 47,000 students and 8,800 employees in 2024. The University grew strongly throughout the 20th century and is at present one of the oldest and largest institutions of higher education and research in Scandinavia. LU has for several years been ranked among the world's top 100 universities according to QS or Times Higher Education rankings. The ambition of LU is, according to its website, "to continue to be a world-class university that works to understand, explain and improve our world and the human condition".

LU integrated entrepreneurship into its teaching activities at the beginning of the 21st century and received considerable funds for doing so. In order to keep its entrepreneurship education up to date, the university has continuously reflected upon its teaching activities and has consistently adjusted its educational approach by developing new best practices.

The institution with the strongest link to entrepreneurship at LU is the Sten K. Johnson Centre for Entrepreneurship (SKJCE). As stated on its website, the ambition of SKJCE is "to continue developing the centre into a dynamic arena for national and international cooperation between academia, industry and organisations with an interest in entrepreneurship and innovation". Due to this, the close connection to the Öresund region and to actors in IDEON Science Park is seen as source of competitive advantage. SKJCE offers a variety of demand driven courses at different faculties of LU, but also undergraduate and graduate programmes where students from different disciplinary backgrounds are admitted. Of particular importance is the International

¹ Source: Lund University (2014). Lund University – Education, Innovation and Research since 1666. Information Brochure. Lund: Lund University.

Master's Programme in Entrepreneurship and Innovation (MPEI). This Master's Programme has obtained considerable attention on a global and national scale and competition among the applicants is fierce with approximately 1200 applicants for 60 spots. Concerning the teaching methods, a focus is set on action-reflection teaching methods while close connection with companies and support systems in the region is aspired.

Several extra-curricular activities with regard to entrepreneurship education are offered at LU. One example includes the awards and scholarships that are provided to students based on pitched business ideas (e.g. Dragons at the University or Leapfrogs). Further examples include entrepreneurship-oriented initiatives, such as VentureLab (a student incubator that inspires and gives business advice), Venture Cup (a business plan competition), FENA (a student association for entrepreneurship) and SPARK* Lund (a student-to-student coaching service at LU driven by active students from the Master's programme in Entrepreneurship and Innovation).²

1.1.2 Leadership and governance

Importance of government strategies

In Sweden, an overall promotion of entrepreneurship and a societal drive toward general interest in entrepreneurship can be observed. Since LU is a governmental university, the Swedish government has strongly influenced its entrepreneurship education strategy, most importantly through the provision of seeds and funding.

SKJCE is funded to a large extent by the government (see section 1.1.3). The development of SKJCE began in the year 2000 when Hans Landström was appointed professor in entrepreneurship at SEM of LU. The move to increase the focus on entrepreneurship education at LU was initiated by the Swedish government as a push strategy. In turn, in the year 2003, Prof. Landström received additional funding for entrepreneurship education from the Vice Chancellor of LU. As a result, Prof. Landström employed Prof. Marie Löwegren and they jointly developed undergraduate courses for entrepreneurship. In 2006, the MPE with the NVC track was launched by SKJCE (see

section 1.2). SKJCE nowadays offers a wide range of entrepreneurial courses at four out of the eight faculties of LU (see section 1.2).

The national government of Sweden aimed at developing cutting edge education in the field of entrepreneurship in Sweden. SKJCE successfully applied for funding and received funds for its entrepreneurship education from the government from 2009 until 2011. However, in order to continue its funding from 2011 onwards, SKJCE started a fundraising campaign and received 20 million SEK from Sten K. Johnson. This funding enabled SKJCE to expand its entrepreneurship education activities and to hire new employees.

On its website, SKJCE made the following remark related to the importance of government funding for its establishment: "The government funds have allowed us to strengthen our educational and research portfolio in accordance with the announced ambitions. The time limitation of the governmental allocation of resources has required

² For SPARK* Lund see <https://www.lusem.lu.se/organisation/research-centres/sten-k-johnson-centre-entrepreneurship/sten-k-johnson-centre-entrepreneurship-outreach-activities/spark-lund> for a more detailed description.

a focus on creating long-term funding. In the spring of 2011, the donation from Sten K. Johnson enabled long-term investments and allowed us to continue building a lasting entrepreneurial arena formed as a centre for entrepreneurship.”

Importance of entrepreneurship in the university’s strategy

Entrepreneurship is of high importance for LU. In the beginning of the 21st century, LU largely concentrated on entrepreneurship and innovation by directly addressing these topics. However, the roots for this development were set beforehand. Within the last decade, entrepreneurship has continuously become more important and more of a common discipline to the university. Since 2004, systematic work has been carried out in order to build an educational structure within the field of entrepreneurship at LU.

Innovation represents one of the four priority areas of the strategic plan of LU. Within this strategic plan, the “need to develop training in both innovation and entrepreneurship” is clearly mentioned. Hence, an explicit focus on innovation with a close linkage to entrepreneurship can be revealed at LU. According to Frederik Andersson, Dean of LUSEM, and Kristina Eneroth, Pro-Vice Chancellor for International Affairs, LU has always been innovative. Innovation has been one of the priority areas for LU since its establishment in 1666. Since LU represents an old and large university which generally leaves little room for creativity, an explicit focus on innovation is quite distinguishable. According to the interviewees, LU is trying its best to be innovative although innovation comes at a high cost for the university.

Extent of high-level commitment to implementing entrepreneurship

A strong extent of high-level commitment to implementing entrepreneurship can be observed at LU. Entrepreneurship was a priority of Per Eriksson, who held the position of Vice-Chancellor of LU until 2014. Prof. Eriksson wants to see more output of university research and continuously pushes for entrepreneurship and innovation. One interviewee mentioned that there has been an increase in entrepreneurship activity at LU in the past five years mainly due to Eriksson’s initiative.

Level of faculties’ and units’ autonomy to act

When it comes to entrepreneurship education, the autonomy to act is mixed between bottom-up and top-down initiatives. Most activities are initiated bottom-up from respective centres, institutes or departments such as SKJCE. Simultaneously, entrepreneurship education is promoted from the top as well, for instance during the current 350-years celebration of LU in 2016. For that purpose, a funding campaign for scholarships was created. Entrepreneurship and innovation are one of the priority areas for this campaign.

Organisational implementation

LU pursues an explicit and embedded approach to entrepreneurship education. Geographically, LU is partially located next to IDEON Science Park in the middle of the local business network. LU strongly uses this network for its entrepreneurship education by bringing in external partners into its educational activities (see section 1.5).

Entrepreneurship courses are foremost offered at the School of Economics and Management (LUSEM), next to the Faculty of Engineering, Science and Humanities, and Technology. Besides, entrepreneurship education is becoming more important at

the Faculty of Fine Arts. As stated by the interviewees, no direct resistance to entrepreneurship education at LU can be observed although different focuses and priorities for entrepreneurship can be noticed. Some faculties continue to be reluctant to focus on entrepreneurship; they want to conduct research but do not aim at commercialising the findings and therefore they remain less entrepreneurial. Due to this, the problem of the full curricula was further emphasised leaving little room for the integration of additional entrepreneurship-related courses into the curricula.

The organisational implementation of entrepreneurship education ultimately remains a question of resources, which makes funding for elaborate and continuous entrepreneurship education of utmost importance (see section 1.1.3 below). The majority of all funding is provided by the government to LU, which then distributes it to the faculties, which in turn distribute funds to the respective departments. The reporting, in contrast, goes from the departments to the faculties to LU to the government.

1.1.3 Resources: people and financial capacity

Human resources for entrepreneurship education

The existence of excellent researchers and teachers was highlighted as essential for the provision of entrepreneurship education by several interviewees. An increasing pressure to attract top researchers and teachers at universities like LU can be observed. This was perceived as one of the major difficulties in entrepreneurship education due to the fact that the pay level and spread of salary in academia is comparatively low. Thus, education does not always seem to pay off which can discourage the pursuit of academic careers. Moreover, a need for female professors can be observed. In order to attract (female) academics for a career at LU, individual negotiations for employment are offered, for instance with regard to the percentage of time devoted to teaching (usually 70%), research (usually 20%) and administration (usually 10%). Frequently, a desire for a stronger focus on research is expressed from applicants that can, for instance, be addressed through increased engagement in third-party research projects.

Financial resources for entrepreneurship education

It was mentioned by one interviewee that all over Sweden universities are struggling with funding and hence, the development of a long-term funding strategy was emphasised as highly important for the continuous success of entrepreneurship education. Funding for entrepreneurship education at LU and SKJCE originates from a variety of sources. First, funding is provided from national education funds. Second, LU receives private donations with a focus on entrepreneurship. As mentioned in 1.1.2 above, innovation and entrepreneurship are considered as a priority area for a funding campaign due to LU's 350 years celebration (see section 1.1.2 and 1.5). Third, funding can be ensured through grants received in the form of third-party projects in entrepreneurship. Fourth, since 2010/2011 non-EU students have to pay tuition fees in Sweden of approximately 120,000 SEK a year as opposed to EU students who can study for free in Sweden. Nonetheless, the number of non-EU applicants at LU continues to rise. These studying fees serve as an additional source of income for the

university. This money is directly distributed to the respective faculties and can, as a consequence, be partially employed to cover educational expenses in the area of entrepreneurship. The funding campaign due to LU's 350 years celebration partly focus on scholarships for non-EU students.

To manage its financial resources, SKJCE possesses its own advisory board for fundraising and advising activities which entails company representatives and alumni (see section 1.5).

1.2 Entrepreneurship in curricula and teaching

1.2.1 Overview of curricular offers

LU offers a wide range of programmes in entrepreneurship for a diverse group of students at different faculties and departments. The portfolio of entrepreneurship courses comprises four out of eight faculties, namely LUSEM, Humanities and Theology, Engineering and Science. On the whole, entrepreneurship courses are mostly provided by LUSEM. There are several interdisciplinary courses which students from all faculties can attend and a number of tailored courses for specific fields of study. The diverging contexts and target groups require differentiated teaching approaches. Hence, in order to meet the requirements of this diversity, the design of the courses (i.e. part of a module vs. free-standing, mandatory vs. elective, part-time vs. full-time) varies with the context it is offered in. A total of six courses are held in English and the remainder is taught in Swedish. An overview of all entrepreneurship education offers at LU on the undergraduate, graduate and PhD level can be found in exhibit 1 below.³

Concerning the undergraduate level, there are several courses on entrepreneurship tailored to certain degrees, such as business administration, humanities and technology. They are either compulsory or voluntary within the degree. The majority of undergraduate courses related to entrepreneurship require prerequisites such as an amount of accomplished credits or certain relevant courses.

Next to two graduate courses for students in economics, social science and film and media production, there is a Master's Programme in Entrepreneurship and Innovation (MPEI) based on the same teaching philosophy which aims at providing learning from action, theory and experience. Due to the emphasis on SKJCE in this case study, the following sections will focus on the MPEI as SKJCE's well-known flagship programme. The programme focuses on new venture creation.

On the PhD level, there is one interdisciplinary entrepreneurship course under the Agenda 2030 Graduate School at LU. The course is the result of a collaboration between the School of Engineering and the School of Economics and Management (LUSEM).

³ See <https://www.lusem.lu.se/organisation/research-centres/sten-k-johnson-centre-entrepreneurship/study-education-entrepreneurship#courses> for all courses that SKJCE provides. For the course Entrepreneurial Skills see <https://www.lunduniversity.lu.se/lubas/i-uoh-lu-FEKL23>.

Exhibit 1-1: Overview about curricular entrepreneurship education offers at Lund University

No.	Name	Objectives	Target group	Offered since	No. of participants in 2023/24
Undergraduate Level					
1	Course: Entrepreneurial Skills	1) introduce students to the development process of an entrepreneurial project, 2) introduce students to the entrepreneurial mindset that is needed for the development process to take place, and 3) introduce students to the dynamics of team work.	Undergraduates with a least 30 ECTS credits, interdisciplinary (all faculties of LU)	2022	45
2	Course: Entrepreneurship	Give a practical and theoretical introduction on how commercial and social entrepreneurship emerges in the economy. An emphasis is set on entrepreneurial opportunity recognition, interactions of the entrepreneurial team, the idea and the environment.	Undergraduates in Business Administration, having completed 60 ECTS credits.	2009	35 (autumn) 35 (spring)
3	Course: Innovation Management	Develop theoretical knowledge and practical ability in innovation management, supporting an innovative climate in existing businesses and managing innovation for the development and growth of the businesses.	Undergraduates in Business Administration, having completed 60 ECTS credits.	2009	30 (autumn) 40 (spring)
4	Course: Social innovation: a strategy for sustainability	Provide knowledge of how to explore and evaluate social innovations in theory and practice. Explain and provide examples of how to transfer academic knowledge into practice in uncertain environment and how to initiate and carry out teamwork.	Undergraduates with a least 30 ECTS credits, interdisciplinary (all faculties of LU)	2014	55
5	Course: Entrepreneurship and Project Management	Develop theoretical knowledge and practical ability in various aspects of entrepreneurship and project work as well as the students' initiative and creative ability.	Undergraduates with at least 30 ECTS credits, interdisciplinary (all faculties of LU)	2004	35
6	Course: Cultural Management: Project Management and Entrepreneurship in Arts and Humanities	Provide knowledge and training in how skills from previous humanistic studies can be used creatively in the development of new business opportunities and within project management.	Undergraduates having completed 60 ECTS credits in humanities.	2010	20

7	Course: Project Management and Entrepreneurship in Fashion Studies	Provide knowledge in the field of entrepreneurship including social and sustainable business models. Apply skills and methods in project management and in creating a business plan against the background of the students' competencies in fashion studies.	Undergraduates in fashion studies having completed four preconditioned courses.	2013	30
8	Course: Business and Entrepreneurship	Give an introduction to the entrepreneurial opportunities for engineers; provide knowledge on the entrepreneurial process and practice to create a business plan.	Undergraduates in technology studies.	2009	70
Graduate Level					
9	Master's Programme in Entrepreneurship and Innovation	Provide knowledge and experience on the creation of new ventures.	Undergraduates (B.Sc./B.A.), international, interdisciplinary	2007	65
10	Course: Small Business Economics, Regional Development and Entrepreneurship	Outline the importance of small business and individual entrepreneurs regarding innovation, employment and regional development.	Students in Master's Programmes in Economics and Social Science.	2010	20
11	Film and Media Production: Entrepreneurship	Provide an introduction and in-depth studies on the field of entrepreneurship in film and media production. Students gain experience in the role of producers, entrepreneurs, or business and project leaders by participating in various field projects.	Master students in the programme 'Film and Media Production' having completed 90 first-cycle higher education credits.	2012	30

1.2.2 Target groups

Main target groups of entrepreneurship education

The target group of MPEI is interdisciplinary students with an undergraduate degree (BSc/BA) of at least 3 years/180 credits in any field of study. The admission requires English language proficiency (English 6/ Course B). The selection criteria are based on the applicants' curriculum vitae, grades, previous studies and a statement of purpose.

There is a high diversity among the students with different nationalities and age ranges. MPEI does not give priority to LU students and therefore comprises about 80% international students.

Continuous education

Some of the students applying for MPEI already possess an entrepreneurial ambition at the start of the programme while others develop it later on. Around 50% to 60% of the students have a business background. The programme itself does not differentiate between the students' level of entrepreneurial experience. However, it offers tailored support for those who do lack entrepreneurial experience and require additional, tailored help.

Bridges to secondary education

LU employs close links to secondary education. The following is communicated in its publishing material: "In order to inspire an early interest in research and higher education among children and young people, we work with schools, put on science shows and theme days and run a science centre". LU invites high school students to the trade show where students display their project results.

Specificities

There is an enormous interest in MPEI with roughly 1,100 applicants for 60 seats in the programme per year. Over the years, a constant increase in the number of applicants to MPEI can be observed, with only a slight drop in applications directly after the introduction of tuition fees. Approximately 95% of students find employment after graduating, either through self-employment, through employment in existing businesses or in support organisations embedded in entrepreneurial ecosystems. One interviewee pointed out that MPEI enjoys an excellent employer reputation.

1.2.3 Designing lectures and courses – basic curricular decisions

Intentions and objectives

According to the programme description, the main learning objective of MPEI is to develop an understanding of entrepreneurship and entrepreneurial skills, to generate experiences and knowledge, and to prepare for an entrepreneurial career or work in the field of entrepreneurship.

The programme offers the opportunity to gain practical experience in the field of venture creation and to develop entrepreneurial competencies. Students learn how to identify and exploit business opportunities by starting and managing new ventures (see <https://www.lusem.lu.se/study/masters-programmes/entrepreneurship-and-innovation-masters-programme>)

Contents

MPEI as a one-year programme in total encompasses 60 ECTS, including 5 courses with 5 to 7.5 ECTS each and two exam works encompassing 15 ECTS each. The programme consists of five courses providing theoretical knowledge on the venturing process. Firstly, there is a course on "Opportunity Recognition" where students are introduced to the generation and evaluation of ideas, assigned to develop and assess new venture ideas and ultimately present these ideas for which they receive feedback. During the process students are introduced to various external guest speakers to broaden their horizons of potential sources for opportunity recognition. Additionally,

the students take part in a one-week entrepreneurial challenge. The purpose of this challenge is to develop hands-on experience on opportunity recognition and evaluation. There are teams of five to six students who need to come up with and realise opportunities and solve problems and challenges connected to the sustainable development goals. This challenge is supervised by SKJCE staff. At the end of the challenge the teams present their projects and hand in a learning report. The team that comes up with the most innovative idea and clearest value wins a trophy. Secondly, the students take part in a “Value Creation” course. In this course, they meet with potential customers and conduct a feasibility analysis on their ideas. This includes a presentation joined by mentors and students giving feedback. Thirdly, there is a course on “Business Model Development” where students are introduced to key concepts related to business model development. The students develop business models in close collaboration with their mentors. Fourthly, the “Entrepreneurial Leadership” course introduces students to cases dealing with people-related challenges associated with the venture creation process. Lastly, the “Entrepreneurial Finance” course covers sources of funding and includes interviewing venture capitalists and entrepreneurs.

In order to support the students’ entrepreneurial actions, the Master Programme provides a number of guest lecturers who are experts in various areas related to new venture creation. Furthermore, there is an integrated mentorship programme where students are matched with an experienced mentor supporting them to advance their entrepreneurial career (see section 1.2.5).

Along with a highly intensive and motivating curriculum, time is allocated for students to pursue an entrepreneurial project, either on their own or in a team. Qualified teaching staff and experienced business mentors assist students in the venture creation process. The project is concluded with a Pitch Deck, Demo Day, and a Meta reflection report .

Methods and media

MPEI employs lectures given by LU’s academic staff as well as guest lecturers with alumni, entrepreneurs, or company members. The courses comprise traditional case studies as well as live cases. There are hands-on, practical assignments and challenges the students have to accomplish. Students usually have to present their research or project outcomes. They also frequently work in diverse teams to develop interpersonal skills. The programme follows a personal approach, including supervision, feedback and interaction with the students.

Informal evaluation of learning outcomes and feedback for students

Concerning the informal evaluation students receive feedback from other students, academic staff and their mentors. Feedback is thereby often exchanged from one team to one another (e.g. an opponent team).

Using results of entrepreneurship research

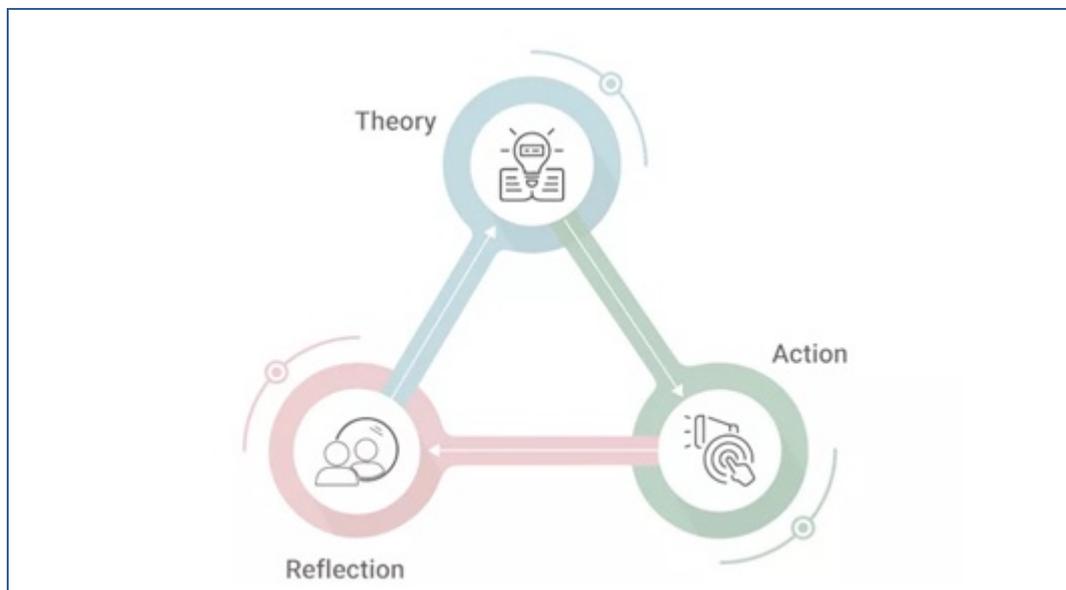
One unique aspect of LU – as stated on its website – is that the university employs a very close link between its education and research in order to “inspire innovative thinking on an academic foundation”. LU is highly research-oriented and possesses world-leading research groups in over 30 different fields. Most teachers are also

researchers, which facilitates the integration of research findings into teaching activities. LU emphasises the integration of results from secondary and primary research on entrepreneurship education into teaching. SKJCE has created a research program on entrepreneurship education, which builds on prior research on enterprise education and entrepreneurial learning. The goal of this programme is to generate scholarly knowledge which is of value for the international scholarly community and for developing and fostering its entrepreneurship education. In this context, there are five main research programmes in the field of entrepreneurship: “Entrepreneurial Learning and Education”, “Migrant Entrepreneurship”, “Community Currencies”, “Entrepreneurial Ownership and Finance”, and “Innovation Theatre”.

The outcomes are imparted to the students via textbooks, complementary articles which students work on in lectures and reading assignments. Entrepreneurship education is carried out by theory-based lectures, interactive workshops on topics such as creativity and guest lecturers to share personal experiences. Furthermore, the students’ ability for business opportunity recognition is fostered.

This long-term research in entrepreneurship education has shaped the pedagogical view at SKJCE as displayed in exhibit 2 below. SKJCE’s pedagogical view implies that entrepreneurial learning works best with an action-oriented approach with experience-based activities for the students in order to learn from practice. Additionally, the learning process requires reflection on the practice and gathering theoretical knowledge on entrepreneurship. Therefore, entrepreneurship education embraces action as well as learning from theory and is thus termed as “action-reflection theory”.

Exhibit 1-2: SKJCE’s Pedagogical view



Source: <https://www.lusem.lu.se/organisation/research-centres/sten-k-johnson-centre-entrepreneurship/study-education-entrepreneurship/our-pedagogical-approach-sten-k-johnson-centre-entrepreneurship>

1.2.4 Setting of entrepreneurship teaching

Locations

The Master’s Programme is located in the Lund campus of LU. Supervision and examination take place at the SKJCE. Furthermore, there are off-campus activities,

such as those at companies which serve as locations of entrepreneurial learning. During their studies, students are offered various company visits to learn about entrepreneurship in different contexts and industries.

Timing

The Master's Programme is designed as a full-time study programme taking place during the day. It is an intense programme with a time span of at least 40 hours a week. The next study period takes place from 2nd September 2024 to 8th of June 2025.

Formal evaluation of learning outcomes

The evaluation of learning outcomes is usually conducted by grading. Additionally, according to the type of course, the students have to hand in journals on their ideas or learning reports from challenges to foster learning from experience. These learning outcomes influence the grading, and the feedback based on the learning outcomes is provided in written form.

1.2.5 Instructors: teachers and mentors

Professors, other employees and external lecturers of the university

SKJCE focuses on three interrelated but different areas, namely education, research and external relations (see section 1.5). Today, the Centre is well established in all three areas.

In terms of SKCJE's employees, most teachers are simultaneously engaged in research which facilitates the close linkage between research and education described above. Attention is paid to excellent teaching abilities when hiring new employees. At SKJCE the majority of the employees possess a business background with a focus on entrepreneurship. Entrepreneurship education at LU is provided mostly by employees from SKJCE, next to courses offered by staff from other departments at LU.

“Real entrepreneurs” as teachers

There is a strong collaboration with the local and regional business community within the MPEI. Experienced start-up entrepreneurs, alumni, as well as those who have experienced entrepreneurship within established companies, are integrated as guest lecturers or mentors in entrepreneurship education. The aim is to share their entrepreneurial experience with the students (see section 1.5).

Mentors

The master programme provides a mentor to each student for personal and business development purposes. The meetings between mentors and students takes place on a regular basis, typically once a month. These mentors are entrepreneurs, alumni or managers (see above). They are volunteers with an interest in using their competencies to support young entrepreneurs and are eager to help, give something back, network and add value to students. The mentors are regularly integrated into teaching and for instance, give the students feedback on their feasibility analysis of ideas and provide feedback on the students' venture projects in their role as advisory board members. Interviewed students mentioned that the mentorship is of great value

due to the obtained feedback and the possibility to “get into the Swedish society”. Since mentors are regularly invited to social events within the scope of MPEI, mutual networking opportunities for students, mentors and academic staff can lead to future cooperation as an outcome (see section 1.5).

1.2.6 Management of entrepreneurship education

Teacher and trainer management

It is explicitly mentioned by LU that educational development and the exchange of best practices in teaching is of utmost importance to ensure excellent teaching skills.

In terms of teacher management, SKJCE runs meetings and seminars for discussing and sharing pedagogical beliefs. The programme director is responsible for introducing staff to teachers. An extensive management is required for the mentors who play a crucial role in the MPEI encompassing the acquisition of individuals, effectuation and evaluation of the process.

The mentors are identified and contracted by Lottie Olsson Norrsén, Director of External Relations at SKJCE. The selection criteria for the affiliated mentors are profound knowledge in the field of entrepreneurship and business development and an interest in getting involved in the student's business development process. Furthermore, they have to be available for a monthly meeting with the student throughout the academic year.

Introductory meetings with all mentors, where responsibilities are discussed, take place in October. In these meetings mentors and students present themselves and have roundtable discussions. This gives them the possibility to check the match and to exert preferences. The decision about the matching is made by the respective programme manager and Lottie Olsson Norrsén.

Internal and external network management

MPEI links students with different educational and cultural backgrounds and offers networking opportunities for social and business purposes. This context is favourable for building competent teams, for collectively creating innovative ideas, and for accessing international markets.

Evaluation of courses and programmes

Evaluation of courses is of utmost importance at SKJCE since the evaluation of entrepreneurship education represents one of its main research areas. A continuous reflection of its entrepreneurship education activities is performed internally in response to the action-reflection approach leading to regular adjustments and developments of new practices. When it comes to external evaluations, SKJCE received a favourable evaluation of its entrepreneurship education activities by a national evaluation committee. Moreover, LUSEM passed its EQUIS accreditation with distinction. One challenge that was mentioned in the context of the evaluation of entrepreneurship education is that tension between academics and practitioners in the national evaluation system can be noticed.

1.3 Extra-curricular activities related to entrepreneurship education

1.3.1 Overview of extra-curricular entrepreneurship activities

LU offers a variety of extra-curricular activities in the field of entrepreneurship education to its students. In the table below, a selection of extra-curricular activities provided at LU is displayed. These activities will be briefly described in the boxes subsequently. Further activities that are entirely initiated by incubators without direct involvement from LU, such as Demola (a project-based initiative where students work on solving global problems) are outlined in section 1.5.

Exhibit 1-3: Overview of extra-curricular EE activities at the University of Lund

No.	Name	Objectives	Target group	Offered since	No. of participants in 2023/24
1	Venture Cup	To provide a competition for students who are looking to develop their business idea and start a business; to increase awareness for entrepreneurship and establish entrepreneurial mindsets	People in Sweden with early-stage entrepreneurial ideas, mainly within 18-33 years of age, everyone can compete	1998	27,000 participants since 1998
2	Dragons at the University	To offer students a possibility to practice their presentation techniques in a competitive way and to pitch their business ideas for venture capitalists – the "Dragons".	MPE students or students with an incubator company at Venture Lab	2010	60 students participated in total since 2010
3	Leapfrogs	LU Innovation provides students with financial support to develop their business ideas during three months of full time work	Students from LU, Malmö Högskola, BTH, SLU Alnarp and Högskolan Kristianstad	2012	
4	Spark*Lund	Spark*Lund is a student-to-student coaching service at LU driven by active students from the MPEI.	Students from LU who are interested in starting a business	2021	
5	European Entrepreneurship Education Conference (3E) and European Entrepreneurship Education Award	To foster a better understanding of entrepreneurship education and to exchange best practices (3E conference); to highlight the importance of teaching and learning in the area of entrepreneurship in Europe; to further stimulate and promote	Researchers, educators and policy-makers interested in Entrepreneurship Education (3E conference); Any person or	2012	30- 50 a year

		innovative teaching methods within the field; to diffuse the state of the art in entrepreneurial education among scholars, policymakers practitioners, and people involved in entrepreneurship education on university level (Award)	organisation active in entrepreneurship education in Europe who has contributed to teaching entrepreneurship, through education, research or outreach activities (Award)		
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Venture Cup

Venture Cup is a national non-profit organisation that was founded in 1998 (see <https://www.venturecup.se/en/om/>). Originally, Venture Cup was initiated by McKinsey, being inspired by Harvard. It can be distinguished in four regions, namely Venture Cup North, West, East and South. LU belongs to Venture Cup South which covers the entire Southern part of Sweden and consists of 50 to 60 network members including entrepreneurs, managers and alumni. Venture Cup South presently entails one full-time and one part-time employee. Funding remains a challenge for Venture Cup with funds currently provided by the Swedish government in addition to sponsoring by LU and local companies. Venture Cup possesses a budget of approximately 2,000,000 SEK per year.

Venture Cup is the organiser of a business plan competition. The activities of Venture Cup can be distinguished among two structures (idea and business plan), four categories (life science, people & society, environment & energy, and web, software & media) and three different phases (business idea, pitch and business plan).

The Venture Cup-process takes place twice a year, in fall and spring. The Cup is targeted at all faculties of LU, but also at other HEIs in the region. As a result of a competition, four winners, respectively in fall and in spring are identified per region who, in turn compete in the national cup. Competitions mostly take place in teams of two to three although no fixed number of team members is set. Participation is free and all teams can decide whether they want to participate in all three phases of the competition or in only one phase. The participating teams get evaluated by the Venture Cup network. Evaluation criteria include the innovativeness of the idea, the team spirit and competencies, the need and credibility of the market as well as the scalability in terms of the growth potential and

the environmental impact. Venture Cup aims at creating further awareness from students for its competition in order to increase the rate of applications. A further goal is to raise the number of contestants with a foreign background as well as more teams led by women.

Venture Cup is also directly integrated into entrepreneurship education at LU by being part of existing entrepreneurial courses on topics such as how to be more creative, how to write a business plan or how to pitch (see section 1.2). Members from Venture Cup hold lectures or workshops during entrepreneurship courses at SKJCE or in Fashion Design, Engineering or Humanities studies. In the past, Venture Cup has also provided an entire course with 10 workshops by itself.

Dragons at the University

Dragons at the University is a competition with prizes where MPE students can pitch their business ideas in front of five venture capitalists (see <http://www.entrepreneur.lu.se/en/about/events/dragons>). Winners of the pitches are in

turn selected in the categories of trustworthiness, potential of the project, and rhetorical qualities. This project was initiated by SKJCE in 2010 within the scope of the MPE. By now, it is offered as collaboration between SKJCE and Venture Lab. For further information on Venture Lab, please see section 1.5.

Leapfrogs

Leapfrogs is an initiative by LU Innovation where students receive 40,000 SEK as financial support for developing their business ideas during the summer (see <https://www.leapfrogs.lu.se/en/about-leapfrogs>). The scope of the initiative is three months of full-time work. The essence of Leapfrogs is to provide a platform for experimentation and learning, allowing students to take a long leap in order to decide whether to implement an idea further or not.

European Entrepreneurship Education Workshop and European Entrepreneurship Award

LU annually organises a “European Entrepreneurship Education Workshop” for researchers, educators or policy makers in entrepreneurship education to foster a better understanding of the field. Within this workshop a “European Entrepreneurship Award” is awarded to “a person or organisation which has significantly contributed to the improvement of the entrepreneurship education in academia in Europe”. Next to the honor and a diploma, the laureate obtains a prize sum of 100,000 SEK. An evaluation committee of five members, including Prof. Hans Landström from SKJCE, evaluates the nominee’s entrepreneurship education approach on the basis of its novelty and innovativeness, its potential impact and transferability, and its relevance for a public beyond academia.

1.4 Institutional aspects of entrepreneurship education

1.4.1 Organisational set-up and change

Marie Löwegren, Director of SKJCE, stated that the entrepreneurship education activities described above are partially based on new organisations, especially when it comes to the LU Tech Transfer Office, LU Innovation and the creation of SKJCE or the activities at IDEON Science Park (see section 1.5). However, these organisation models are not per se new and their success rates vary.

Marie Löwegren also pointed out that the coordination and integration of a new field like entrepreneurship in a large university such as LU is different compared to a smaller business school. On one hand, when a large university decides to focus on entrepreneurship it can really make a difference, while on the other hand the coordination and integration of entrepreneurship at the university could be a challenge. This bureaucratic system and the organisational structure make the system quite slow.

The creation of SKJCE as a centre with a particular focus on entrepreneurship is vital for coordinating entrepreneurship at a large university like LU. In terms of its organisation, SKJCE is part of the SEM faculty of LU. SKJCE’s educational activities are however executed via the School’s Department of Business Administration.

1.4.2 Laws, statutes and codes

In Sweden, entrepreneurship has recently been introduced as a mandatory topic in secondary school education and in the long run, this will have great importance for entrepreneurship education at the university level.

Moreover, Sweden possesses a unique ‘teacher exception’ law which implies that the researchers and teachers at the university own their intellectual properties, and not the university (see section 1.5). Funding for university-based start-ups is managed through support services like LU Innovation (see section 1.5).

As emphasised by Marie Löwegren, entrepreneurship as a research and teaching field is on its way to mature and institutionalise by becoming more ‘mainstream’. Sweden was one of the first countries in Europe to adapt entrepreneurship in their curricula. On one side, the advantage of the institutionalisation process is that entrepreneurship has been an integral part of the academic system with regard to courses and positions. On the other side, the disadvantage is that it will be evaluated by traditional measures and the research and education could not be as creative and ‘out of the box’ as it has been before.

In terms of incentives for staff to engage in entrepreneurship education, no concrete material or immaterial incentives were mentioned. It was solely stated that good students are more fun to teach and that a variety of teaching methods can be employed in entrepreneurship education, such as case studies, which makes teaching more diversified.

1.4.3 Mindsets and attitudes

The educational activities described in section 1.2 and 1.3 above explicitly and/or implicitly serve the purpose of creating entrepreneurial mindsets. They are able to achieve this by raising awareness for the importance of entrepreneurship and by encouraging entrepreneurial behaviour. One interviewee stated that a creation of entrepreneurial mindsets is of particular importance for the culture and creative sector (see section 1.5 and 1.6).

1.5 External relationships related to entrepreneurship education

1.5.1 Types of relationships with external stakeholders

LU in general and SKJCE in particular are deeply embedded into their local environment through their location next to IDEON Science Park. Hence, collaboration with external stakeholders is strong and represents a focus of this case study. Below an overview of the primary external stakeholders involved in entrepreneurship education at LU can be found. Each stakeholder group will be described in more detail subsequently.

Exhibit 1-4: Overview of external stakeholders involved in entrepreneurship education at Lund University

No.	Stakeholder	Type of involvement in Entrepreneurship Education
1	Enterprises	Sponsors, investors, lecturers, mentors, partners
2	Alumni	Advisory board member, promoter, evaluator, mentors, lecturers

3	<i>Spark*Lund</i>	<i>Student-to-student coaching</i>
3	<i>Student organisations (Venture Cup, FENA, LUSIC)</i>	<i>Events, competition, networks, organisation of events and competitions</i>
4	<i>Support Services (LU Innovatiopn, Almi, Innovation Skåne)</i>	<i>Funding through loans and venture capital, business advice, commercialisation and verification support, marketing and Intellectual Property screening, patenting support</i>
5	<i>Incubators (VentureLab, Ideon Innovation, TCP, LSI, LIFT)</i>	<i>Support of start-ups through funding, coaching sessions and business advice, networking and co-working space, organisation of lectures, seminars and events</i>
6	<i>Science Parks (IDEON Science Park)</i>	<i>Networking, cooperation, exchange, events, co-working space, pitching events</i>

1.5.2 External stakeholders involved in entrepreneurship education

Enterprises

Local and regional enterprises are deeply integrated into entrepreneurship education at LU and SKJCE. As sponsors, entrepreneurs can donate money or assist in the organisation of events, such as the 350 years celebration of LU where innovation and entrepreneurship are one of the prioritised areas (see section 1.1). Further sponsoring possibilities include yearly alumni, mentor and student networking dinners and societal activities or dinners within the scope of ESU, which is an 8-day conference for European PhD students in the field of entrepreneurship. Sponsoring is also needed for the yearly Demo Day where the Master students exhibit their business ideas. Moreover, entrepreneurs and company representatives are situated as advisory board members of the LUSEM. Besides, they can be engaged in entrepreneurship education as guest lecturers and mentors or cooperate with SKJCE by offering internship placements for entrepreneurship graduates. Ultimately, cooperation with local enterprises is sought to generate possibilities for future employment of graduates since a high employability of its graduates is of utmost importance to the management of LU.

Alumni

LU and SKJCE collaborate strongly with its alumni in its entrepreneurship education. To begin, all alumni from the MPEI (see section 1.2) of SKJCE receive a survey to evaluate the Master's Programme and to generate an overview of their current jobs and information on career trajectories. SKJCE consequently keeps its own alumni list and aims at achieving a dynamic alumni network through the LinkedIn platform. Alumni who have become successful entrepreneurs are promoted at conferences by SKJCE. Furthermore, several alumni serve as advisory board members to the students' venture in the MPEI. Next to the initiatives by SKJCE, LU is currently launching a university-wide centralised online alumni platform to facilitate communication with alumni on a university

Student organisations

Student organisations are deeply embedded into entrepreneurship education at LU. Examples of student organisations with a clear linkage to entrepreneurship education include Spark*Lund which is a student-to-student coaching service available for free to all students at LU who are interested in developing and working on their business ideas. The coaching services are offered by active students at the MPEI in their role as coaches or business developers within Spark Lund. Spark*Lund exemplifies SKJCEs commitment to practical, hands-on learning, where students apply their knowledge and experience from the master's programme to foster entrepreneurship across the university. They provide entrepreneurial coaching and mentorship during the early stages of the entrepreneurial journey.

An additional linkage between the student organisations at LU and SKJCE is the fact that SKJCE also uses joint events by student organisations or incubators to present itself and to collaborate with one another as organiser. Examples of this include the Demo Day where students exhibit their venture projects and the pitching competitions for Dragons at the University, both events organised in collaboration with the student incubator Venture Lab (see below).

Support services

LU Innovation as a link between academia and business represents a hub for innovation and commercialisation of research at LU (see <https://www.innovation.lu.se/en/>) At LU, researchers own the rights for their inventions within the university context while LU itself is not allowed to engage in business activities. LU Innovation aims at working with students and researchers from LU in order to generate benefits and growth for society through entrepreneurial activities. LU Innovation is funded by the administration of LU. Business ideas get evaluated by LU Innovation employees jointly with the inventor. Evaluation criteria of a proposed business idea are its market need, the uniqueness of the approach, the results of a cost-benefit analysis and the competition and related alternatives. Acceptance rates of the evaluation for the applicants are approximately 30%.

LU Innovation provides free support in form of business advice, commercialisation and verification support as well as marketing and intellectual property screening. It also helps with the patent initiating process by going through the screening, novelty search and application stages. LU Innovation further offers non-refundable funding to start-ups. The desired outcome of LU Innovation support activities are the establishment of new companies or the lending of a license to companies. One famous start-up example with support from LU Innovation is Sensative, a company that produces thin and long-lasting window and door sensors (see <https://www.sensative.com/>).

As mentioned above, LU Innovation can also provide support for students from LU with innovative business ideas. As a first example, LU Innovation provides financial support to students with business ideas within the scope of Leapfrogs (see section 1.3). Next to that, employees from LU Innovation offer guest lectures and advice on pitching in an entrepreneurship course at LU called “Clinnovation” (see section 1.2). In this course, 40 third-year civil engineering students work on 20 entrepreneurial projects in the area of bio-medics and LU Innovation grants a prize to the team that performs best in a pitching contest.

Besides LU Innovation, further support services that co-operate strongly with LU are

Almi and Innovation Skåne. Almi assists in creating opportunities for viable ideas and companies to be developed by providing advisory services, loans and venture capital through all phases of the business creation process (see <https://www.almi.se/en/>). Innovation Skåne offers free professional business advisors and their networks to potential entrepreneurs as support.

Incubators

Five incubators are located in Lund: “**Venture Lab**” (a student incubator), “**Ideon Innovation**” (a business incubator that fosters growth of start-ups), “**Life Science Incubator**” and “**SMILE Incubator**” (both for life sciences) and “**The LIFT Incubator**” (an incubator for service-oriented companies). All of these five incubators with the exception of LSI are located within the IDEON Science Park. According to the website of the science park, “the incubator processes, encompassing strong, committed contact networks, and cooperation with external companies, universities, the innovation system and financiers, create the best possible conditions for transforming good ideas into business”. Two of these five incubators are described in detail below.

Incubator: Venture Lab

VentureLab was started in 2001 and is now located at XLab, Lund University's new makerspace. Inspired by the artistic process portrayed at the Museum for the Artistic Process and Public Art at Lund University, VentureLab was first part of the School of Economics and Management at Lund University and has since become a central hub for innovation and creativity at Lund University. Today, as a central part of the support at LU Innovation, VentureLab by LU Innovation welcomes researchers and students from all faculties at Lund University who want to develop their research, ideas, and themselves together with others.

On the whole, Venture Lab's activities can be broken down into three areas. Firstly, inspiration aims at creating an entrepreneurial attitude and awareness for students and researchers by offering seminars, guest lectures, ~~trade fairs~~ and events in the field of entrepreneurship and innovation. As part of the support offered by LU Innovation, counselling sessions are offered by innovation developers to students from all faculties of LU, by LU Innovation. These sessions are for free. At present, around 200 counselling meetings with students take place per year and over 100 for researchers.

Incubator: Ideon Innovation

Ideon Innovation, as the oldest and biggest of the five incubators, was established in 1993 as a “business incubator that helps entrepreneurs to build growing companies more quickly” (see <http://www.ideoninnovation.se/>). As a result, Ideon Innovation is located between the university and the business sector by focusing on start-ups and entrepreneurs. Hereby, no emphasis on a specific industry is set. Ideon Innovation does not per se focus on students: Approximately one-third of the presented business ideas are developed by students, one-third of the ideas originate from researchers and the remaining one-third have their sources outside of the university. Ideon's supporting activities include – besides financial support – renting out space for offices by real estate companies and enabling a meeting facility for (potential) entrepreneurs. Further support encompasses business advice, assistance in writing business plans and preparing pitches, as well as getting in contact with business angels, business partners or possible investors.

The incubator Ideon Innovation can be split up into three different parts. First, “Ideon

Innovation” serves as a meeting facility for (potential) entrepreneurs with innovative business ideas. Second, “Ideon Growth” is targeted at small and medium enterprises aiming to grow. Third, “Ideon Open” is set up for large enterprises with a turnover of at least 100,000 SEK. Ideon Innovation receives 60 per cent public funding and 40 per cent private funding while Ideon Growth obtains equal amounts of public and private funding. Ideon Open is mostly funded by private sources. With regard to the funding, one interviewee mentioned that start-ups are an area of high interest for the Swedish government with national programmes for incubators being in place and public funding largely being provided from national funding or counselling funding.

In terms of entrepreneurship education, Ideon Innovation cooperates with LU by offering guest lectures on entrepreneurial topics within Master courses at SKJCE (e.g. on how to approach large corporations) and within PhD courses at SKJCE (e.g. on how to pitch or how to develop a business model) (see section 1.2). Moreover, Ideon Innovation is a member of FENA’s steering group (see section 1.3). It also stays in direct contact with innovation departments from different faculties, such as the Chemistry Centre to assist in finding partners to commercialise business ideas. If requested by industry needs, students are contacted by Ideon Innovation. One example in this respect is Demola, a Finnish concept for innovation between students and industry partners that is further employed in Sweden, Estonia and Hungary. Thereby students are incorporated in projects that aim at creating innovative solutions or concepts for real-world companies or organisations (see <http://southsweden.demola.net/>).

Science and Technology Parks

Parts of LU and SKC are located in Lund, in direct proximity to the **IDEON Science Park**, which was formed in 1983 as one of the first science parks worldwide (see <https://ideon.se/about/>). The park is run by Wihlborgs Fastigheter AB, LU and Lund Municipality. It is Scandinavia’s largest and most dense science park with 120,000 square metres of office space. Around 350 companies with approximately 2,700 employees are located in the park itself and 450 in the wider area. Since its start in 1983 more than 900 companies have operated in IDEON Science Park. Most of these companies are specialised in the high-tech sector and have been formed as a result of research activities at LU.

For entrepreneurship education at LU, the park is of the utmost importance since numerous educational activities take place in facilities within IDEON Science Park. Office space within the science park can be obtained by students working on entrepreneurial projects, such as Master Students. Local networking events, such as Tuesday Breakfast, are offered within the science park (see above). Close collaboration with the incubators, for instance in the alignment of events, is also fostered through the proximity within IDEON Science Park. Every second Tuesday, IDEON Science Park offers a pitchers’ corner (<https://ideon.se/pitchers-corner/>).

1.5.3 International relationships

In general, it can be stated that LU is a highly international university with the highest percentage of international students in Sweden and more than 680 partner universities in over 50 countries worldwide. Out of the 2,200 freestanding courses at LU, roughly 500 are taught in English to attract foreign students. 5 undergraduate and 100 Master’s

degree programmes are entirely provided in the English language. Furthermore, LU is the only Swedish university to be a member of the international network “League of European Research Universities and Universitas 21”.

1.6 Impact and lessons learned

1.6.1 Evaluating impacts of the entrepreneurship education approach

Impact and Transferability of Entrepreneurship Education to other Universities

In 2023, LU Innovation handled 112 innovation ideas from researchers at Lund University and 210 ideas from students, from which 322 innovation projects were generated. Moreover, LU Innovation handled 13 patent applications. 31 companies were formed, and in three of them Lund University became a part owner through LU Holding AB, the University’s investment company and venture builder. Historically, between 2010 and 2023, LU Innovation’s support to researchers and students resulted in 363 new companies. Of the 331 companies started between 2010 and 2022, these had, in 2022, 120 million euro in revenues and 1,268 employees.

At the end of 2023, LU Holding was a shareholder in 54 companies, mainly in life sciences and technology. In 2022, these companies had a total of 1,181 full-time employees and a turnover of 1.244 billion Swedish crowns (110.5 million euro). They reported 1.3 billion kronor (115,5 million euro) in venture capital and contributed 600 million kronor (53,3 million euro) in tax revenues.

In terms of SKJCE, approximately 1,000 students are educated yearly. In particular, its MPEI has received substantial interest from European and Asian universities. Competition for the Master’s Programme is fierce with about ~~900~~ 1,100 applicants in 2024 for a total of 70 placements (see section 1.2).

SKJCE regularly runs several projects related to entrepreneurship education. A current project with partners in Colombia aims at building capacity among the fishing community to think more entrepreneurially and create more value to their customers. The project is to improve and add to the value chain by creating new business models and more diversified products. Moreover, SKJCE has recently concluded the following projects:

- “Advanced International Training Programme for Innovation and Entrepreneurship” for Cuban officials and university representatives. It resulted in the development of a structure for an entrepreneurship ecosystem to be implemented in Cuba.
- Train-the-Trainer programme in entrepreneurship for university and incubator staff in Cuba. It resulted in strengthened entrepreneurship capacity in the transitioning economy of Cuba.
- Train-the-Trainer programme in entrepreneurship for university staff of Universidad Nacional de Colombia. It resulted in strengthened capacity to teach entrepreneurship in Colombia.
- Swedish Institute Summer Academy for Young Professionals (SAYP) for the Western Balkans. It offered a course in innovation ecosystems and entrepreneurship to enhance understanding and build capacity among young professionals from the state, support organisations and university institutions.

In all projects, SKJCE’s ambition is to make a positive impact on society, which is why they

focus their capacity building activities where considerable impact can be achieved. Some of these activities also develop into research projects, which further strengthens the Centre's ambition.

1.6.2 Lessons learned

Summary of lessons learned from this case

One key lesson learned from this case is that embeddedness into the local context with a supportive environment can be of utmost importance for the success of entrepreneurship education. At LU students do not solely receive excellent entrepreneurship education but are also provided with an enormous support environment for nascent entrepreneurs through funding, coaching or mentoring. These supporting environments can serve as an encouraging factor for the formation of student start-ups. Besides receiving an understanding of entrepreneurial concepts, training of entrepreneurial skills and behaviour is offered at Lund through entrepreneurial competitions or practical projects. Some of these curricular and extra-curricular activities take place within IDEON Science Park. This proximity of the educational stakeholders facilitates close collaboration between actors from the entrepreneurial ecosystem and frequent exchange of best practices.

However, one challenge that could simultaneously be observed is that although supportive, embedded entrepreneurial ecosystems are in place in Lund, innovative business ideas from students with a high rate of success remain nonetheless, relatively rare. Most of these ideas instead stem from researchers. Simultaneously, students do not make use of the entrepreneurial offers and support provided to the fullest extent possible. The problem might therefore not directly be a lack of ideas, but a lack of entrepreneurs. According to one interviewee, it might at times be difficult to motivate students for entrepreneurship and integrate them into voluntary educational offers. Students might take the potential support for granted and need to be provided with incentives for engagement in entrepreneurial actions on a voluntary basis. Entrepreneurship and entrepreneurial behaviour from students has to be further encouraged at universities by creating more awareness and a deeper understanding of entrepreneurship. The connection between students and researchers could be deepened to encourage such entrepreneurial behaviour. Possible benefits of an entrepreneurial career to students could be further highlighted to encourage active involvement, to deepen the entrepreneurial spirit and to prepare students for an entrepreneurial career. Moreover, reluctance to grow for established start-ups can be observed regularly in Sweden. This is another factor which could be addressed through entrepreneurship education via the integration of matters such as fear of failure and aversion to risk-taking in an entrepreneurial context (e.g. through story telling from successful entrepreneurs).

As stated by one interviewee, a change in mindset to overcome barriers to entrepreneurship is particularly needed for Swedish students from the cultural and creative sector where entrepreneurship at times has a negative connotation. Entrepreneurial minds were pointed out by interviewees as being essential for companies from all sectors in the future. Some students from the cultural and creative sector use services like TCP but they are often not receptive from the start, since many of them consider entrepreneurship as "anti-social" and "wrong". In the creative sector, a mismatch between education and the real world can be observed with common employment difficulties (e.g. fashion studies). This gap could be bridged by supplying skills and capabilities to think entrepreneurially through an increase in tailored entrepreneurship education offers for the cultural and creative sector.

List of Abbreviations

CEI	Corporate Entrepreneurship and Innovation Master Programme
LSI	Life Science Incubator
LU	Lund University
LUSIC	Lund University Social Innovation Center
MPE	Master's Programme in Entrepreneurship
NVC	New Venture Creation Master Programme
SEK	Swedish Krona
SEM	School of Economics and Management
SKJCE	Sten K. Johnson Centre for Entrepreneurship
TCP	The Creative Plot

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The original case study from 2014 was updated in May 2024 by Diamanto Politis, Diamanto Politis, PhD, Professor, Director, Sten K. Johnson Centre for Entrepreneurship, Lund University. Lina Törnquist, Communications strategist, LU Innovation, provided statistical data on LU's innovation output. Marie Löwegren, senior lecturer in Entrepreneurship, Lund University, provided information about entrepreneurship-related international projects.

Research for the original case study was conducted by Kathrin Bischoff, Research Associate at the University of Wuppertal, with support from Eva Monschau, Research Assistant at the University of Wuppertal, on behalf of the study for supporting the entrepreneurial potential of higher education (sepHE). Sources and references used include desk research plus:

Interviews

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Prof. Marie Löwegren, Director of Sten K. Johnson Centre for Entrepreneurship, School of Economics and Management, Lund University, interviewed via the phone on the 22nd of August, 2014 and in person on the 22nd of September, 2014.

Mats Dunmar, Manager Ideon Open, interviewed in person on the 22nd of September, 2014.

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Debora Voges, Project Leader at Creative Plot, interviewed in person on the 23rd of September, 2014.

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