Strategic plan for research at Lund University’s specialised centres

LUND UNIVERSITY
Background

Major global and regional challenges – such as health, the environment, sustainable development, migration and regional conflicts – call for an ability to understand and explain the world in order to improve it. The challenges facing society are complex and the research and education required to meet these challenges need to be largely cross-boundary and international.

Lund University’s specialised centres (USV) form a platform for cross-disciplinary activities that complement the traditional disciplines and the interdisciplinary projects and centres that are based at or between faculties at Lund University (LU). The specialised centres carry out cross-boundary research and education in various ways, including through environments with employees or centres that function more as networks of researchers. At USV, there are currently a number of special initiatives in the form of Vinn Excellence Centres, strategic research areas, Linnaeus environments, special government decisions and strategic investments by the University.

The strategic plan

The USV strategic plan for research lays a foundation to develop cross-boundary research at USV in the long and short term and is based on Lund University’s strategic plan.

In April 2013, the Board of the Specialised Centres, like the other faculties at LU, was given the task of drawing up a strategic plan for the research activities of the centres in line with the University’s overall strategic plan. In 2013 and 2014, as part of this process, USV’s centres carried out self-evaluations including SWOT analyses in order to identify strengths and weaknesses and support needed to develop and improve their activities. The self-evaluations, which in many cases were conducted with the help of external assessors, have laid the foundations for the work on this strategic plan for research.

From the self-evaluations it can be seen that USV’s strengths are well in line with Lund University’s general strategies: cross-boundary collaboration, internationalisation, quality enhancement, and leader, teacher and employee excellence. USV’s focus on cross-boundary research of relevance to society, global and regional challenges and close collaboration with partners outside the University form a major asset to the University and reflect its vision.

Vision

USV – a platform for cross-disciplinary research at a world-class university that works to understand, explain and improve our world and the human condition.

Aim

Highest quality in education, research, innovation and engagement with wider society.

At USV, the following centres participated in the work on self-evaluations that forms the basis for this strategic plan: The Functional Food Science Centre/Anti-Diabetic Food Science Centre, the Centre for Öresund Studies, the Centre for Work, Technology and Social Change, Plantlink, LUCSUS, the Centre for Middle-Eastern Studies, the Centre for East and South-East Asian Studies, the International Institute for Industrial Environmental Economics, CIRCLE and the Pufendorf Institute.
SWOT analysis for USV

Strengths
- Research of relevance to society and in demand, nationally and internationally.
- Major ability to build networks across disciplinary boundaries, faculty boundaries, and nationally and internationally.
- Major ability to attract external research funding and strategic investments such as Linnaeus environments, strategic research areas and Vinn Excellence Centres.
- Long experience of working across boundaries – an important resource for Lund University.
- Strong connection between education and research.
- Interdisciplinary and cross-boundary research that involves stakeholders in the process.

Weaknesses
- Weak or absent representation in decision-making bodies at Lund University.
- No ownership of issues related to PhD studies at the centres.
- University has greater difficulty dealing with and supporting interdisciplinary and cross-faculty education and research than education and research that are subject-specific or carried out within the faculties.
- Low or absent basic funding from LU could jeopardise participation in projects that require co-financing.
- Lack of visibility within Lund University.
- Institutional uncertainty.

Opportunities
- Global and regional challenges increase demand for interdisciplinary research and collaboration with wider society.
- New communication channels could benefit interdisciplinary research and collaboration with wider society.
- Horizon 2020.

Threats
- Weak reward system and career benefits for interdisciplinary research.
- Increased demands for co-financing of external research funding.

Cross-boundary collaboration

One of the strengths of USV’s activities is that the research and education are cross-boundary, interdisciplinary and relevant to society. USV also works in an international environment. The centres work with anything from two to eight faculties at Lund University, as well as with other parts of USV, other universities and wider society. All the centres have demonstrated an excellent ability to build networks across disciplinary and faculty boundaries, as well as across national borders.

USV is to be known as a resource for cross-boundary collaboration and is to pass on the knowledge held at the specialised centres to other parts of the University. Several of the centres have long experience of working across boundaries, which USV sees as an important resource for Lund University that has not yet achieved its full potential. Several of the centres take advantage of the breadth of the University by gathering research teams that illuminate questions from interdisciplinary perspectives. They serve as important meeting places for cross-boundary research, which often results in new research collaborations and funding applications. Several centres are also working to position themselves in preparation for Horizon 2020 applications.

Some of the specialised centres both conduct interdisciplinary research and deliver interdisciplinary Master’s programmes. There is a strong link between research and education throughout, and the students are encouraged to formulate research questions and carry out research projects.

USV’s cross-boundary collaboration also stretches outside the University. Global and regional challenges cross disciplinary, cultural and national boundaries and increase demand for interdisciplinary research and collaboration with society.

USV works on the principle that there is always more than one possible theoretical or methodological approach to the grand challenges. At a number of our centres, we work with different stakeholders to define and identify research issues (business sector, civil society, Government and government agencies), which provides valuable input to explore interfaces and opportunities in areas such as health, the environment and sustainable development. Flexibility on theory, epistemology and methods enables us to identify and formulate research questions that cannot always be identified or handled within one discipline or within sector-based research or policy. One strength of USV’s cross-boundary activities is that research questions are prioritised and that there is openness to borrowing theoretical and methodological insights from different disciplines and stakeholders. Some projects are started from the bottom up, in collaboration with stakeholders, and others from the top down, by locating the challenge in theory from an interdisciplinary perspective.

Capturing the needs of society and making use of the experience and perspectives of external partners are one of the strengths of USV, which we will continue to develop. Our research focus is generated in close collaboration with wider society and this creates good opportunities for commissioned
research, commissioned education and co-financing. This serves as a complement to our other activities and provides mutual benefit as external stakeholders gain access to research and the research gains access to empirical evidence and funding. This has proved very important in the development of some of USV’s activities. The activities of some centres are co-financed by industry partners and public bodies, and the research takes place in collaboration with industry partners. This means that doctoral students gain experience of research collaboration with industry while still studying.

New communication channels such as social media benefit interdisciplinary research and collaboration with wider society. USV aims to further raise the profile of its research through active research communication. This means that we intend to spread information about research results achieved and actively participate in the public debate on current topics. Several of our centres already play a prominent role in the media, both the traditional media and new media.

USV works actively to increase contact with politicians and other decision-makers on all levels in Swedish society and at EU level. Certain centres have drawn up specific procedures and channels for engagement with decision-makers, such as policy advisory boards and engagement with regional and national development councils. At other centres, regional and national decision-makers often have an active role in projects.

USV works to support an active and growing alumni network and take advantage of the asset that the alumni represent for the University. USV produces graduates who are the researchers, decision-makers, employees and entrepreneurs of the future, i.e. those who will work with future regional and global challenges. The practical nature of interdisciplinary research leads to career opportunities in various fields both within and outside academia.

Internationalisation

Global and regional challenges are a shared concern of the global population and internationalisation is important in order to give our students the opportunity to develop global awareness and international engagement. Students, lecturers and researchers from other parts of the world are an important part of this and provide new perspectives and pose different questions.

USV is to continue working to recruit and support international researchers and visiting professors at USV. The majority of the specialised centres have a strong international character and broad international networks. Four of the University’s 29 strong research environments are part of USV. These environments and a number of USV’s activities are attractive to prominent international researchers, which is important for the environments/centres and benefits Lund University as a whole.

The centres within USV have drawn up various strategies to improve opportunities for students, lecturers and researchers to gain international experience and to promote international education and research collaborations. This takes place through contact with other universities, international institutions and companies in order to facilitate research collaborations and recruitment of international guest lecturers and teaching staff as well as to provide opportunities for student exchange and work placements.

USV works to ensure that all parts of USV and LU use USV’s international network to further internationalise education and research. Several of the specialised centres focus on specific geographical regions, with the region forming the common connection to illuminate important theoretical issues and local and global challenges from an interdisciplinary and regional perspective. All regions have highly interesting aspects from both a Swedish and a global perspective. The centres have extensive networks in their geographical areas, which facilitates relations and creates opportunities for the entire University to network in these regions.

It can also be pointed out that international relations not only concern research collaborations, student recruitment and student exchange; it can also involve different organisations, public authorities, businesses, civil society and other partners.

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1 See Report on 29 strong research environments at Lund University (2013)
Quality enhancement

The complexity of society and its changing nature demand continuous work on quality enhancement, business intelligence, and processes of change within the University. The Board of USV has worked proactively on this since it took up office in 2012. As a step in the work on quality enhancement, the Board gave the centres the task of carrying out self-evaluations during 2013 and 2014. In many cases, the self-evaluations were carried out with the help of external assessors. USV is home to strong research environments and a number of the external assessors highlighted both the high academic quality and the structure of the interdisciplinary/cross-boundary centres. The structure of USV has encouraged the exploitation of interdisciplinary synergies between different areas of expertise and has provided good conditions for both research breakthroughs and research-based innovation, which has been demonstrated by the number of patents, among other things.

Within the research conducted at USV, quality and relevance usually go hand in hand. It is often the best researchers who are also the most successful entrepreneurs. This means that measurements that capture the impact of the research in the research community, such as citations, spin-off projects, visibility in wider society and the researchers’ participation in the public debate through seminars, newspaper opinion pieces, news appearances, and so on also reflect well the quality of the research. Some centres perform regular citation analyses as part of the important follow-up of the quality and relevance of the research. Another measure of quality is being appointed as hosts of important international projects, such as Earth System Governance. Of course, publications are also important and it can be observed at some centres that the collected publications have had high to very high impact. USV also includes a strategic research area, a Vinn Excellence Centre and Linnaeus environments, which are themselves a hallmark of quality.

USV is to work for measurements and quality assurance processes that offer higher validity. Despite good success for the centres, the self-evaluations revealed that there is difficulty in gaining academic recognition for interdisciplinary research and education. A number of the specialised centres are internationally renowned and are cited extensively in their fields, but, in their experience, interdisciplinary research finds itself at a disadvantage in a number of academic evaluation systems.

The specialised centres also find that the institutional uncertainty at USV impedes their long-term planning and strategic development. The centres are in need of a sufficient planning horizon to be able to develop their activities optimally, and the requirement of regular evaluation of their position as part of USV can impede this development.

Leader, teacher and employee excellence

USV is to develop its opportunities to use its experience of interdisciplinary education to serve as a resource and knowledge bank for Lund University as a whole. Several of the centres have long experience of interdisciplinary education and research, and they are working proactively to create and enhance international learning environments and to support Master’s students in a number of ways. One experience reported by several centres is the importance of ‘bonding’ in the student group, both in terms of their knowledge base and socially, and doing this as early as possible, preferably before the start of the course. Some of the methods used at USV have proven useful for both interdisciplinary and international learning environments, and include making it easier for students and doctoral students from different backgrounds to work together so that they can learn from one another.

Only two centres at USV have their own research subject. Doctoral students can be affiliated to the other centres in various ways, but no research subjects are based at the centres. The students may have their funding from or through a specialised centre, their office at one of the centres or their main activity within a research project led by USV. Several centres that do not currently have their own research subject see a major need to establish their own PhD programme.

USV wants LU to review the possibility of introducing structures, quality assurance processes, career paths and reward systems that are adapted to interdisciplinary and cross-faculty PhD projects. At USV, researchers’ theses are interdisciplinary. At certain specialised centres, for example, doctoral students and supervisors from different faculties work on tandem projects for each doctoral student. This way of working has improved knowledge transfer with regard to research techniques, as well as producing clear improvements in research collaboration as part of each thesis. Despite good results, it is clear that structures, quality assurance processes, career paths and reward systems are poorly designed to encourage doctoral students in cross-faculty projects, which impedes cross-faculty research.

Internationalisation and cross-boundary interaction are desirable, but place high demands on the centres. They entail everything from increased administration for study-related issues to higher demands on leadership in order to create
Priorities in order to achieve its overall goals

**USV’S PRIORITIES IN ORDER TO ACHIEVE ITS OVERALL GOALS**

- USV is to work for measurements and quality assurance processes that offer higher validity for interdisciplinary education and research.
- USV is to work to introduce structures, quality assurance processes, career paths and reward systems that are adapted to interdisciplinary and cross-faculty education and research.
- USV wants to further raise the profile of its research through active research communication.
- USV is to be known as a resource for cross-boundary collaboration and to pass on the knowledge and experience held at the specialised centres to other parts of the University.
- USV is to continue to develop the work to capture the nation’s administration limits participation and career paths for researchers who do not speak Swedish. At certain centres, there are 15 nationalities represented and less than half the staff speak Swedish. The Swedish-language meeting culture at LU represents a limitation for the centres, in that only a minority can be considered for management positions and that the centres in certain cases have to double-up positions in order to ensure there is always a Swedish speaker available.

**USV’S VIEW OF HOW THE UNIVERSITY MANAGEMENT AND BOARD CAN HELP TO ACHIEVE THESE GOALS**

- Review and introduction of structures, reward systems and career development systems that are adapted to interdisciplinary and cross-faculty research, education and PhD projects.
- It should be as easy to carry out interdisciplinary/cross-faculty research and education as it is to carry out research and education within the faculties.
- Minimise obstacles to cross-boundary collaboration – provide support systems and create favourable environments for interdisciplinary research and administration.
- Possibility of PhD studies at USV.
- Direct funding for research for all parts of the University based on the allocation key.
- Evaluation of administrative quality.

**USV’S VIEW OF HOW THE UNIVERSITY CAN WORK PROACTIVELY TO LOBBY THE GOVERNMENT**

- Direct funding for interdisciplinary research.
- Invest in interdisciplinary and challenge-driven research, in particular to position the universities in preparation for Horizon 2020.

**USV’S RELATIONSHIP TO ESS, MAX IV AND MEDICON VILLAGE**

The specialised centres have illuminated and deepened understanding of major research investments from an interdisciplinary perspective through initiatives including a symposium on MAX IV and ESS and the research topic “Legitimizing ESS: Big Science as collaboration across boundaries”.

At USV, individual centres have collaborated with Medicon Village. For instance, the Functional Food Science Centre (FFSC)/Anti-Diabetic Food Science Centre (AFC) see major potential in closer collaboration with Medicon Village, including with the new Food for Health Laboratory, which entered operation in January 2014. The Food for Health Laboratory plays an important part in developing LU’s expertise in the field of human dietary interventions for evaluation of the preventive potential of foods, an initiative that increases opportunities for LU to participate in international programmes such as Horizon 2020 and the Food KIC, and a future base for an LU ‘School of Prevention’.
DEVELOPMENT OF RESEARCH INFRASTRUCTURE
Apart from the research infrastructure that is being developed within the context of the Food for Health Laboratory, USV has no further initiatives in this area.

EXISTING AND POTENTIAL COLLABORATIONS ACROSS FACULTY BOUNDARIES
All of the specialised centres collaborate across faculty boundaries; see the table of existing collaborations below.

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<th>CENTRE</th>
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<td>Functional Food Science Centre (FFSC)/Anti-Diabetic Food Science Centre (AFC)</td>
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<td>Centre for Öresund Studies (CORS)</td>
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<tr>
<td>Centre for Work, Technology and Social Change (WTS)</td>
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<td>SASNET – network for South Asian studies in Sweden</td>
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<td>Plantlink</td>
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<td>Centre for Sustainability Studies (LUCSUS)</td>
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<td>International Institute for Industrial Environmental Economics (IIIEE)</td>
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<td>Centre for Innovation, Research and Competence in the learning Economy (CIRCLE)</td>
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<td>Pufendorf Institute</td>
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<td>Centre for Societal Resilience^2</td>
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All the centres are working to deepen and extend their cross-faculty activities, as described in the centres’ self-evaluations.

^2 New centre at USV that was established in September 2013 and for this reason did not complete a self-evaluation.