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Swedish University of Agricultural Sciences

SLU Board

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SLU Strategy 2017–2020

Introduction

A university is so clearly dependent on its employees and students. Their ambitions, talents, creativity and collaboration mean more than anything. This is why, in this strategy, we focus particularly on people and their opportunities. Our focus areas are *Employees, Students and education, Research infrastructure, External collaboration* and *Our shared SLU*.

The fact that SLU is a fantastic university that develops the understanding and sustainable use and management of biological natural resources remains a matter of course. These activities are carried out by people, who must be given the best possible conditions.

A strategy is a roadmap that will work, even in a changing world. It should capture what is fundamentally important and draw attention to it. Our focus areas must be included when we discuss our research, our courses and degree programmes, our external collaboration and our mission in environmental monitoring and assessment.

Peter Högberg, Vice-Chancellor

Summary

SLU's strategy for 2017–2020 is based on SLU's concept of mission, vision and values, where understanding of biological natural resources and human management and the sustainable use of these is central.

SLU has a unique profile in Sweden, with responsibilities that are important to society. We create and integrate knowledge about production, the environment, and animal and human health and quality of life, combining scientific excellence with competence in application-oriented issues. SLU's sectoral role, which initially only concerned the agricultural industries, has in recent years broadened and developed.

SLU works continuously to develop conditions for innovative, excellent research and research-based education. The focus is on areas of strategic importance to SLU's mission statement and funding agreement targets for education, with the goal that SLU be internationally renowned and provide society with relevant knowledge. During the period 2017–2020, SLU intends to focus on four university-wide research domains: *Bio-based materials*, *Sustainable and secure food supply*, *Economics* and *The significance of experiencing nature and of companion animals on human health and well-being*.

The strategy's core consists of five focus areas. These specify what SLU is going to focus its efforts on in 2017–2020 to create the best possible conditions for the organisation:

- Employees
- Students and education
- Research infrastructure
- External collaboration
- Our shared SLU.

Employee's competences and creativity are essential in order for our organisation to maintain high quality. SLU should be an attractive and stimulating workplace for our employees. The individual employee should experience increased security in their funding, and the conditions for a good and effective working environment should be further developed.

For SLU's future as a university, it is crucial that the courses and programmes we offer are of a high quality and socially relevant. The competition for student places should increase, and the student population should reflect the breadth of society. The courses and programmes should be characterised by educational quality, stimulating learning environments, strong research connections and links to the needs of society.

SLU's researchers should have good access to the research infrastructure which is necessary for ground-breaking research. The joint exploitation of research infrastructure will increase. SLU will have principal responsibility for national infrastructure in areas where our research has a strong position.

SLU's collaboration with the surrounding community will benefit society while the quality of our education, research and environmental monitoring and assessment will be raised. Structured working methods for collaboration should exist. SLU shall enter into strategic partnerships with a limited number of significant actors.

A clearer common identity will encourage SLU's staff and students to feel involvement and commitment, and thus to take responsibility for the development of SLU's activities and be good ambassadors for SLU. To take advantage of our disciplinary breadth and geographic spread, collaboration between the different locations and organisational sections will increase.

Doctoral education has an important role in SLU's research and for the university's skills supply. SLU intends to continue to focus on thematic graduate schools that are open to all doctoral students.

SLU's environmental monitoring and assessment will be world leading and actively contribute to the international development of scholarly-based decision making. There should be a strong link between SLU's environmental monitoring and assessment as well as between research and education.

The strategy will be set out in SLU's annual process of planning and fund allocation. The measures that are described under each focus area will be followed up annually in accordance with a specific plan.

The faculties formulate their own strategies based on the common strategy and policy documents. The faculty strategies form the basis of the departments' multiannual plans.

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1. Strategy aims and content

SLU's ambition is to have an organisation of the highest international class that contributes to the development of sustainable management and the use of biological natural resources, including safeguarding human and animal life and health. To reach this aim it is necessary to give staff and students the best possible conditions. This requires clear leadership and an efficient use of resources, rooted in a long-term strategy for the organisation.

The strategy's task is to clarify SLU's long-term focus, so that we as an organisation have a common understanding of where we want to go and how to get there. By starting from a strategy where short-term goals and priorities are formulated, the chance that the conditions set out lead to the desired results in the long term is increased.

This document initially describes the basic principles that guide our activities. After this, SLU's profile and role in society and the external conditions that affect the university are presented. An overview is given of our activities in research, education and environmental monitoring and assessment (EMA). In the chapter on focus areas, the objectives and priorities for 2017–2020 are specified. The strategy document concludes with a description of how the strategy relates to other governing documents and how implementation and follow-up should be conducted.

The chapter on focus areas, with specified measures, is meant to serve as an overall action plan for the current four-year period. The strategy document as a whole should be considered as a guide for SLU's activities which will be relevant even after 2020.

2. SLU in the world

All activities at SLU are based on, and guided by, our mission, vision and values.

2.1 SLU's mission, vision and values

Mission

SLU develops the understanding and sustainable use and management of biological natural resources. This is achieved by research, education and environmental monitoring and assessment, in collaboration with the surrounding community.

Vision

SLU is a world-class university in the fields of life and environmental sciences.

Values

SLU values express the organisation's common core values. These provide guidance in everyday life by describing what the starting point for our activities

are, in contacts with the outside world, and how we behave towards each other and others. All SLU employees come under the scope of these values. The core values are:

- scientific approach
- creativity
- openness
- responsibility

Additionally, the following six basic principles are included in the common core values for civil servants¹:

- democracy
- legality
- objectivity, factuality and equal treatment
- free formation of opinions
- respect
- efficiency and service.

2.2 SLU's profile and role

SLU has a profile that is focused and unique in Sweden through its specialisation in knowledge of biological natural resources. SLU creates and integrates knowledge about production, the environment, and animal and human health and quality of life, combining scientific excellence with competence in application-oriented issues. Our areas of responsibility are strategically important for society, both nationally and internationally. The university also has a unique position through its presence in several locations around the country.

SLU has a mission to contribute expertise and research that responds to the needs of society, especially in agricultural sciences and related fields². Our sector's role has broadened and evolved and now includes areas such as rural development, urban environments, water resources, wildlife management, animals for sports and companionship, biotechnology, bioenergy and environmental protection.

The sector's role has a global dimension because our fields are linked to societal challenges such as climate change, food and water supply, sustainability, etc. International collaboration is an integral part of all of our research and is becoming increasingly important throughout the entire organisation. SLU supports development in low-income countries through research and educational collaboration.

¹ Swedish Council for Strategic Human Resources Development (2012)

² The ordinance for SLU (1993:221), Section 1a, states that "the Swedish University of Agricultural Sciences undertakes research and offers third, second and first-cycle courses and programmes in agriculture and horticulture, landscape planning, food production, environmental protection, forestry and timber processing, fish and water use as well as veterinary medicine and animal management."

National and international comparisons show that SLU's activities are of a high standard, both in terms of research, education and EMA. SLU's courses and programmes at undergraduate level and Master's level include professional programmes not found at any other Swedish university and are therefore important to the national supply of skills. At SLU, there is comprehensive and specialised infrastructure, such as field research facilities, facilities for advanced animal and plant sciences and the University Animal Hospital.

Our university has a special responsibility for environmental monitoring, the combination of environmental monitoring and academic competence that creates a basis for the work with Sweden's environmental quality goals, EU directives and international conventions. SLU is the largest national actor in this area.

SLU is a university with a clear ambition to contribute to an ecologically, socially and economically sustainable development³. We do this primarily through the positive indirect environmental impact that our courses and programmes, research and EMA leads to. We also work actively to reduce our direct environmental impact. The systematic improvement process is developed and documented by our environmental management system.

2.3 External conditions

Society is facing major challenges linked to globalisation, urbanisation, migration, sustainability and climate change. These challenges mean new requirements and expectations on universities as knowledge developers. Many of the UN's Sustainable Development Goals (Agenda 2030) concern the management of biological natural resources. To meet the needs of food, energy, etc., a transition to a bio-based socio-economy ("bioeconomy") is necessary, with sustainable production systems, access to clean water, safeguarding biodiversity, reducing poverty, sustainable food consumption, health and a good local environment. These issues are all central to SLU.

Swedish agriculture is facing the big challenge of keeping up with rapid technological developments and improving its competitiveness and profitability, while also working to reduce environmental impact and to safeguard animal health and animal welfare. The environmental and land-based industry as a whole has an untapped potential to contribute to increased food security and the strengthening of the socio-economy by developing the use of biological raw materials. Public authorities and organisations in land-based industries are demanding the strengthening of needs-driven, solution-oriented research. As a sectoral university, SLU has an important role here. Another social trend of importance to SLU is the increased interest in animals for sports and companionship, as shown, among other things, by the fact that every fourth household in Sweden today has a dog or a cat.

³ SLU's environmental policy (2011)

In research policy at both national and international level, an increased focus on challenge-driven research is seen. In most cases this requires a multidisciplinary or interdisciplinary approach. There is also a growing demand that research be conducted in cooperation with actors who use the knowledge it produces, to ensure that new knowledge is translated into benefits for society ("innovation") more quickly. In EMA, society's demand for decision-support documents is steadily increasing, while technical progress increases the potential for both effective data collection and making the data available.

SLU needs to meet the land-based sector's needs for a workforce with the appropriate skills. Our students need to be given a good foundation to be able to work on both a national and an international market.

Since its formation in 1977, SLU has had a unique position in many national research and disciplinary domains. In recent years, other universities have started to profile parts of their activities so that they overlap, and to some extent compete, with SLU's activities. This applies in areas that are central to SLU, such as forestry, natural resource management, the environment and food. This trend may motivate increased collaboration in certain areas and stronger specialisations.

Urbanisation means that public awareness of SLU's traditional areas is decreasing. This has implications for how SLU is perceived and affects the university's attractiveness to prospective students. SLU will need to take account of these developments during recruitment efforts.

In the Swedish higher education system, extensive and partly new demands have been made on universities to focus on quality assurance procedures in education at all levels, linked to national and European quality assurance systems. Furthermore, a new model for the allocation of funds has been suggested, based on national evaluations of research quality and utility. Another trend in the research funding system is that the targeted calls for applications increasingly include requirements for co-funding, leading to an increasing proportion of direct government funding being tied up.

Throughout the academic sector in Sweden, stable conditions for researchers and teachers and clearer career paths are being demanded. Because the government's research funding bodies have limited the ability to fund salary costs, great pressure has been put on universities to provide stable funding for their employees.

3. SLU operations

3.1 Research

SLU works continuously to develop conditions for innovative, excellent research. The focus should be on areas of strategic importance to SLU's mission and

education, with the goal that SLU will be internationally renowned in these areas and provide society with the relevant knowledge.

The strength that lies in our research, combining production, the environment, health and quality of life must be safeguarded. To develop the knowledge needed in both the short and long term, SLU needs to have a full range of research, from specialised and subject-oriented to system-oriented and application-oriented research.

One important area where SLU's research has great potential to contribute new knowledge is the transition to a more bio-based social economy. Here, greater knowledge is needed, including knowledge about sustainable intensification, conflicting objectives in multifunctional production systems, the use of biological raw materials, biotechnology and recycling solutions. Another example is "One World – One Health", where research can help limit the spread of disease and antibiotic resistance, and develop new methods of diagnosis and treatment in both human and veterinary medicine. SLU's research also plays an important role in areas such as ecosystem management and ecosystem services, food security, animal husbandry, rural development, as well as the design and management of urban environments.

SLU has the ambition to contribute the knowledge that society needs to use natural resources in a way that is sustainable in all respects – ecologically, economically, socially and ethically. For a better understanding of the interaction between human and natural resources in the broad sense, a greater element of humanities and social sciences is needed. SLU therefore strives to increase the integration between the humanities, social sciences and natural sciences, i.e. to promote multidisciplinary and interdisciplinary science.

SLU intends to further develop the concept of the so-called future platforms ("Future model"), an approach that was developed to handle the broad, complex issues in different thematic areas. The model is based on a dialogue with stakeholders, where their knowledge needs are identified and the university contributes scientifically based documentation in the form of syntheses and analyses. A multidisciplinary or interdisciplinary approach is often necessary.

SLU's success depends on the creativity and drive of its researchers. It is the university's responsibility to support good ideas and reward high quality, regardless of the research orientation. In order for SLU to be able to take advantage of the dynamics of science, an economic space for new initiatives needs to be created at university, faculty and department level.

The faculties are mainly responsible for research specialisation. Each faculty will identify priority areas within its remit in its strategy. The priorities are based on SLU's mission and the description of SLU's profile and role (see 2.2), as well as the principles described in this section. Areas of an interfaculty nature should be treated at university level to secure a holistic approach and avoid any important area being overlooked.

During the period 2017–2020, SLU intends to focus on the following university-wide domains:

Bio-based materials

This area is becoming increasingly important in the context of society's transition from a fossil-based to a bio-based economy. SLU has an important niche in the value chain from the primary production of agriculture and forestry to the properties of biomaterials. SLU intends to coordinate and reinforce research in the area and be an attractive partner for the technical universities.

Sustainable and secure food supply

SLU intends to contribute actively to the national food strategy through research, ranging from primary production conditions to food quality, safety and health aspects. In collaboration with the sector, SLU intends to develop application-oriented research and to take a leading role in a new research and innovation programme, characterised by a holistic approach to the food system and where the skills of various Swedish actors are combined.

Economics

In the surrounding world there is a clear wish for SLU to conduct strong research in the area, e.g. concerning market and business analysis and entrepreneurship in agriculture and forestry, animals for sports and companionship, etc. SLU needs good teacher competence in the subject that corresponds to the courses and programmes' needs. A strengthening of the subject is also an important step towards greater multidisciplinary and interdisciplinary science.

The significance of experiencing nature and of companion animals on human health and well-being

For many people in today's urbanised society, contact with animals, growing their own plants, visiting nature or green spaces in urban environments, etc., is of crucial importance to their quality of life. Research in this area is in line with SLU's concept of mission and requires multidisciplinary and interdisciplinary approaches.

3.2 Doctoral level (third-cycle) education

Doctoral education has an important role in SLU's research and for the university's skills supply. Doctoral students' thesis work leads to publications in international scientific journals. Thesis work is largely based on research projects that have won external funding in competitive calls for applications.

PhD graduates trained at SLU will be internationally competitive in research, development work and problem solving; at higher education institutions, in business and in the public sector, both nationally and internationally.

SLU intends to continue to focus on thematic research schools that are open to all doctoral students and promote contacts and discussions relevant to the

understanding of research's conditions, context and social role. A greater focus should be placed on interdisciplinary and multidisciplinary science in doctoral education. In the course offering, scientific theory and research ethics are included, where issues such as rules on cheating and plagiarism are treated.

SLU's line is that doctoral students, regardless of employment form and source of income, should have good study conditions and a predictable income at a reasonable level during their period of study. Employment as a doctoral student should be the main source of income.

3.3 Courses at undergraduate (first-cycle) and Master's (second-cycle) level

SLU offers several courses that are unique in Sweden, for example, in agriculture, forestry, landscape and veterinary medicine. A large percentage of our students study a degree programme leading to a professional qualification. SLU also offers a number of Master's programmes in our strong areas of research. The proportion of international students is high, and courses are often conducted in collaboration with other universities.

The courses and programmes should meet both the demanding scientific and educational quality requirements and society's need for expertise in SLU's disciplinary domains. They should be attractive and competitive, both from a national and international perspective, and have a strong scientific foundation and connection to current research and environmental monitoring and assessment.

SLU's aim is that the volume of courses and programmes should increase in scope, especially at Master's level. SLU also has the ambition of offering attractive courses in lifelong learning through university-level training in SLU's sectors, mainly through continuing professional development activities.

3.4 EMA (Environmental Monitoring and Assessment)

SLU has the unique task among Swedish universities of conducting environmental monitoring and assessment. EMA activities highlight society's use of resources and the environmental implications of this. The goal is that SLU's EMA will be world leading and actively contribute to the international development of scientifically based decision-making.

A strong link is sought between SLU's EMA and research, as well as education. SLU will work to ensure that the EMA work can be conducted with continuity and using modern and cost-effective methods. The focus should be on the areas where our research is strong. The UN's Sustainable Development Goals represent an opportunity to expand activities to countries that have not had the resources to develop systems for EMA work.

The world around us requires increasingly open and readily available data. SLU's data hosting should meet this demand and will be further developed through quality assurance procedures, metadata catalogues and e-archives (Tilda project). An active approach with volunteer-based observations of nature and the environment can increase interest among both researchers and the general public and broaden the analysis possibilities. Furthermore, an investment will be made on the visualisation of the results in order to facilitate the dissemination of knowledge in society.

SLU strives to meet the increasing demand for the analysis of measures and their cost-effectiveness. To get into society's decision-making processes, strong collaboration with the humanities and social sciences is necessary, as well as developed forms for communication.

3.5 Operational support

SLU has qualified operational support in the form of university management, library and administrative staff in the departments, whose mission is to create good conditions for the core business and support SLU's work to achieve its vision. Operational support prepares, in consultation with the core business, governing documents concerning, for example, equal conditions, environmental work, etc.

4. Focus areas in 2017–2020

In this strategy, SLU has chosen to put the emphasis on five focus areas. Focus areas are broad areas of a general nature, applying across faculty, departmental and disciplinary boundaries. Each area has relevance for all or large parts of SLU's activities. These areas show what SLU as a whole will focus its efforts on during the period in question to create the best possible conditions for the organisation to develop in accordance with SLU's vision. They should also act as a general guide for planning and prioritisation in the organisation.

The focus areas are:

- Employees
- Students and education
- Research infrastructure
- External collaboration
- Our shared SLU

For each focus area an overall strategic goal, three underlying intermediate objectives and a number of measures are given. For each measure, the document describes what SLU is to achieve by 2020. The follow-up of the strategy will be carried out in relation to these measures.

4.1 Employees

Justification for the choice of the focus area

All of our employees' competence and creativity is a prerequisite to ensure that research, education, EMA and operational support is of high quality. A good working environment with well-functioning management is necessary for everyone to be able to develop and contribute to the activities fully, and for SLU to be able to attract and retain highly skilled employees. In addition, the strategic management of resources and funding stability along with a competitive academic environment is also needed. The recruitment of new employees should therefore be based on the skills supply plans that all departments and faculties should develop in accordance with previous decisions by the Board.

Overall strategic objectives

SLU is an attractive and stimulating workplace for our current and future employees.

Intermediate objective 2020⁴

1. SLU's combined expertise and competitiveness has been strengthened.
2. The perceived security of funding for individuals has increased.
3. The conditions for a good and effective working environment have been further developed.

Priority measures to achieve the intermediate objectives

a) **Work for more secure funding for permanently employed junior and senior researchers/teachers**

Motivation: Reduced dependence on short-term funding provides the individual with greater security and greater space for reflection and strategic thinking. The increased recruitment of young researchers as associate senior lecturers strengthens SLU's long-term skills supply planning. An increased share of government funding for senior teachers/researchers makes it easier for them to act as role models and mentors for younger researchers. Dimensioning in the form of the number of positions at different levels, and the proportion of government funding for senior researchers/teachers, requires frequent, thorough analysis of the workforce structure (see skills supply plans above) and consideration of the resource situation. This measure is linked to intermediate objectives 1 and 2.

What will be achieved by 2020: A common funding model will have been introduced.

Implemented by/decided by: The vice-chancellor initiates a discussion process where faculties and departments are involved.

⁴ The interim objectives are part of the strategic objectives, not milestones.

b) Increase the importance of good educational skills when recruiting teachers

Motivation: A strong role for teachers requires that greater emphasis is placed on teaching skills and specialist knowledge when hiring/promoting. This measure is linked to intermediate objective 1.

What will be achieved by 2020: The academic appointments board will have been trained in educational assessment. All of the faculties will have procedures to ensure educational expertise during the assessment of applicants to higher teaching posts.

Implemented by/decided by: The faculty board with the support of the Division of Educational Affairs.

c) Develop a broad and active recruitment of doctoral students

Motivation: Doctors and licentiates who are educated at SLU constitute an important resource for both society in general and for SLU's supply of future researchers and teachers. The number of doctoral courses and programmes must increase, especially in subjects we have a national responsibility for. This measure is linked to intermediate objective 1.

What will be achieved by 2020: Recruitment activities will reach strategically important target groups. The university's recruitment tool will have been developed to make analysis and follow up easier. The faculties' models for the allocation of resources to different research subjects will have been adapted so that they respond to internal skills requirements.

Implemented by/decided by: The Council for PhD Education and university administration (recruitment) and the faculties (resource allocation).

d) Create a good and creative work environment in concrete actions and behaviours with the support of SLU's core values

Motivation: Active work with SLU's core values contributes to a good working environment and satisfied employees, which is a prerequisite for SLU to reach its goals. This measure is mainly linked to intermediate objective 3.

What will be achieved by 2020: All departments/divisions will actively pursue core values and work environment efforts based on the results of staff surveys, SLU's guidelines and applicable regulations⁵.

Implemented by/decided by: All departments/divisions with the support of the Division of Human Resources.

e) Improve conditions for professional management and leadership

Motivation: By clarifying the managers' mission and reviewing recruitment processes and organisational conditions, the heads of the academic activities are given a better opportunity to do good work. This creates a better and safer working environment for employees. This measure is mainly linked to intermediate objective 3.

⁵ The Swedish Work Environment Authority's regulation "Organisational and social work environment" AFS 2015:4 based on "Systematic Work Environment Management (AFS 2001:1)".

What will be achieved by 2020: New guidelines for managers' responsibilities and authority will have been drawn up based on a discussion with the broad involvement of managers. The recruitment process for the appointment of managers in academia will be harmonised and ensure that both management skills and academic qualifications are taken into account.

Implemented by/decided by: The Division of Human Resources in collaboration with the faculties.

4.2 Students and education

Justification for the choice of the focus area

For SLU's future as a university, it is crucial that students perceive the learning environment as well as our courses and degree programmes as attractive. The courses and programmes should meet high scientific and educational quality requirements, have a clear profile against the concept of mission and a strong international dimension. The courses and programmes should be anchored in SLU's research and environmental analysis, and respond to the labour market's and society's future needs of the competence. Education at doctoral level should be given in an environment where the quality and integrity of the research has a high international standard.

Overall strategic objectives

SLU is an attractive university for students and offers courses and programmes of high quality with societal relevance.

Intermediate objective 2020

1. The competition for places will have increased at all levels and students better reflect the breadth of the whole of society.
2. The courses and programmes will be more clearly characterised by educational quality and stimulating learning environments.
3. All degree programmes at undergraduate and Master's level will have a stronger research basis and link to society's needs, both nationally and internationally.

Priority measures to achieve the intermediate objectives

a) Increase the impact of student recruitment efforts in education at undergraduate and Master's level

Motivation: Student recruitment efforts need to be developed through a university-wide plan. New arenas where SLU can meet potential students from new target groups need to be identified, while the traditional target groups are safeguarded. Student recruitment efforts should be based on the target group's needs and interests. This measure is linked to intermediate objectives 1.

What will be achieved by 2020: All courses and degree programmes will have more than one qualified first choice applicant per place. Recruitment of underrepresented groups will have increased.

Implemented by/decided by: University and faculty leaders as well as the Board of Education, with the support of the Division of Communication.

b) Set aside working hours for teaching staff for regular continuing professional development

Motivation: Opportunities for continuing professional development are needed for educational innovation and course development, as well as developed knowledge of the subject and research basis. For education at doctoral level, research ethics is a particularly important competence area. This measure is linked to intermediate objectives 2 and 3.

What will be achieved by 2020: All departments will have a plan to ensure employees' opportunities for continuing professional development in accordance with the current collective agreement⁶. Active educational academia with excellent teachers will support educational development at SLU.

Implemented by/decided by: The head of department (or equivalent) and the Board of Education regarding educational academia.

c) Strengthen skills training in degree programmes

Motivation: All degree programmes should have sufficient content of practical exercises, excursions, external contacts, etc. The allocation of resources to degree programmes must support this. Furthermore, wherever possible teaching should encompass elements of multidisciplinary and interdisciplinary science. This measure is linked to intermediate objective 3.

What will be achieved by 2020: Professional or vocational elements in courses and degree programmes will have increased in scope and quality.

Implemented by/decided by: The Board of Education, the programme boards and the faculties.

d) Develop and follow plans for external collaboration in all degree programmes

Motivation: Different courses and programmes have different structures for external collaboration. Each programme needs a plan in which goals, progression, implementation, accountability and follow-up of collaboration is described. This measure is mostly linked to intermediate objectives 2 and 3, as well as intermediate objective 2 in the Collaboration focus area.

What will be achieved by 2020: All degree programmes at undergraduate and Master's level follow a well-anchored and funded plan for external collaboration.⁷

⁶ Local collective agreements, Working hours and working hours compensation for teachers etc., section 5. "The objective should be that teachers employed for an indefinite period or researchers in a multiannual perspective (typically 3 years) should be granted space for research, development work and private continuing professional development corresponding to at least 20% of annual working hours."

⁷ Implementation is coordinated with measures the Collaboration focus area, 4.4.

Implemented by/decided by: The programme boards.

e) **Increase international mobility for teachers and students**

Motivation: Teachers and students with international educational experiences bring other, complementary perspectives to education. Participants in different forms of exchanges, such as sabbaticals for teachers, should be actively encouraged. This measure is mainly linked to intermediate objective 3.

What will be achieved by 2020: 20 per cent of students who graduate from SLU will have participated in an international exchange. Doctoral students' and teachers' participation level in international exchange programmes will have increased.

Implemented by/decided by: The Division of Educational Affairs and heads of department.

4.3 Research infrastructure

Justification for the choice of the focus area

Access to high-standard infrastructure is often a prerequisite for the quality and competitiveness of the research. The infrastructures required to be at the forefront of scientific development are becoming increasingly expensive and more technologically advanced, while external funding opportunities have been reduced. An increased coordination of resources, both inside SLU and nationally – and in some cases internationally – is therefore needed. Since 2015, SLU has a central fund to support the establishment and development of certain infrastructure (so-called infrastructure support). Further efforts are needed to meet the needs of different research domains. This focus area largely concerns environmental monitoring and assessment, which to a large extent constitutes important components of SLU's research infrastructure (databases, etc.). For courses and programmes, access to modern infrastructure is also a question of quality.

Overall strategic objectives

SLU's researchers have good access to research infrastructure which gives the opportunity for ground-breaking, excellent research.

Intermediate objective 2020

1. SLU will have established a well-functioning strategic plan and procedures for funding of research infrastructure, which includes national coordination.
2. The internal joint exploitation of research infrastructure will have increased, as well as the number of external users.
3. SLU will have secured principal responsibility for national infrastructure in areas where our research has a strong position.

Priority measures to achieve the intermediate objectives⁸

a) **Implement procedures to deal with the need for basic research infrastructure**

Motivation: As a complement to infrastructure support at SLU level, procedures should be developed at faculty level to continuously analyse and meet the research needs of resources for basic infrastructure. This measure is linked to intermediate objectives 1.

What will be achieved by 2020: All faculties will have procedures for needs analysis and mechanisms for funding basic infrastructure.

Implemented by/decided by: The faculties.

b) **Conduct active marketing of SLU's research infrastructure**

Motivation: Increased demand both internally and from businesses and other external users contributes to a high utilisation rate and stable funding of research infrastructures at SLU's campuses. This measure is linked to intermediate objectives 2.

What will be achieved by 2020: Revenues from user fees will have increased.

Implemented by/decided by: Project managers for Green Innovation Park and departments and faculties with responsibility for individual research infrastructures.

c) **Act proactively for national infrastructures of special interest to SLU**

Motivation: A strong role in alliances with other universities, mainly on a national but also on a regional level, will give SLU greater opportunities to secure stable funding of research infrastructures that are important for prominent SLU research. This measure is linked to intermediate objectives 1 and 3.

What will be achieved by 2020: SLU will be managing at least three national infrastructures in areas where SLU's research has a strong position.

Implemented by/decided by: Pro vice-chancellor for EMA.

4.4 External collaboration

Justification for the choice of the focus area

In SLU's mission (see 2.1), the importance of our activities being carried out with external collaboration is emphasised. SLU has a long tradition of collaboration with the land-based industries. In recent years, collaboration has been extended to the public authorities and other actors in society in line with the fact that SLU's

⁸ These measures are based on the principles established in SLU's guidelines for research infrastructures (ref. SLU ua 2015.1.1.1-1972).

sector role has expanded. The third-stream activities are a very important part of SLU's EMA mission. In parts of the land-based sector, there is a clear wish for more in-depth collaboration with the university. SLU's ability to develop, clarify and communicate its collaboration with the surrounding community will be increasingly important in pace with society's demands on universities increasing.

Overall strategic objectives

SLU's collaboration will benefit society⁹ and be appreciated by stakeholders while the quality of our education, research and EMA will be raised.

Intermediate objective 2020

1. SLU employees will see collaboration as an opportunity for the development of both the core business and their own careers and want to contribute to collaboration work.
2. SLU will have organised effective internal support functions for collaboration and structured working methods for different types of interaction, for example, regarding education, business, public authorities, media and civil society.
3. SLU will have chosen a number of stakeholders in our business areas for closer collaboration in the form of so-called strategic partnerships during the 2017–2020 period.

Priority measures to achieve the intermediate objectives

a) **Support continuing professional development in collaboration**

Motivation: Being able to lead the collaboration in a professional manner is critical to how successful a collaborative project will be. This measure is linked to intermediate objectives 1 and 2, as well as intermediate objective 3 in the Students and education focus area.

What will be achieved by 2020: A course in successful collaboration management will be available to all employees at SLU.

Implemented by/decided by: The Division of Human Resources.

b) **Strengthen the merit rating of collaboration**

Motivation: The current merit system does not reward collaboration. To support employees' willingness to get involved, collaboration skills should be given greater importance in both employment and salary reviews. This measure is linked to intermediate objectives 1.

What will be achieved by 2020: A template for employees to document collaboration will have been developed. Guidelines will have been introduced to show how the quality of collaboration should be assessed and valued in

⁹ SLU's definition of collaboration is: "Collaboration is a means or a process that requires two or more parties to achieve a common goal that it would not have been possible for them to achieve on their own." Collaboration thus creates benefits for all of the parties involved.

employment recruitment and salary reviews.¹⁰

Implemented by/decided by: The head of human resources and the pro vice-chancellor for collaboration.

c) **Organise effective internal coordination of the collaboration function**

Motivation: A decentralised collaboration organisation requires coordination and structures in order to be effective. For this increased contact between the organisational units who work with collaboration is required, such as senior university officers, operational support, faculties, collaborative centres and departments. This measure is linked to intermediate objectives 1 and 2.

What will be achieved by 2020: There will be an effective organisation to coordinate collaboration.

Implemented by/decided by: Pro vice-chancellor for collaboration and the head of university administration.

d) **Develop collaboration forms that are common between several SLU sites**

Motivation: The strength of SLU's different sites is an important resource for successful collaboration. In order to meet stakeholders' increasingly complex needs, common structures are needed that serve as points of entry and coordinate partnerships which SLU's researchers and students are involved in. This measure is linked to intermediate objectives 2.

What will be achieved by 2020: There will be a Green Innovation Park at a minimum of two sites and together they will have convinced at least 50 land-based industry companies to establish themselves on the SLU campus. The student pool has activities at three sites¹¹.

Implemented by/decided by: Pro vice-chancellor for collaboration and the head of university administration.

e) **Structure and organise work with "strategic partnerships"**

Motivation: Organised collaboration with a limited number of significant actors within our activity areas can lead to increased benefits for both SLU and our collaboration partners. The agreement is decided at management level for specific activities for a limited time period, but collaboration is expected to lead to long-term reciprocal effects. This measure is linked to intermediate objective 3.

What will be achieved by 2020: SLU will have signed agreements on strategic partnerships, where programmes for staff mobility are included, with five chosen stakeholders.

Implemented by/decided by: Vice-chancellor and pro vice-chancellor for collaboration.

¹⁰ The implementation will be coordinated with measure b) in the Employees focus area, 4.1.

¹¹ Implementation is coordinated with measure c) Students and education focus area, 4.2.

4.5 Our shared SLU

Justification for the choice of the focus area

SLU has a strong advantage in that we are a national university in a specific sector, with activities that are of global relevance. By clarifying a common identity and vision, and working so that everyone within SLU knows the university's activities and role in society, internal cohesion is strengthened. This leads to employees and students feeling involvement, commitment, and taking a collective responsibility for our operations. A clear identity and a good knowledge of our activities are also prerequisites for employees and students to be good ambassadors for SLU, and help to increase the outside world's knowledge of SLU. An increased awareness of the skills and resources available in all of SLU facilitates internal collaboration, which allows the benefits of our thematic breadth and geographical spread to be better used.

Overall strategic objectives

Employees and students will have knowledge of and feel commitment to SLU's activities, and take joint responsibility for developing activities.

Intermediate objective 2020

1. The perception of a shared SLU will have increased among staff and students.
2. Collaboration between different sites and organisational sectors within SLU will have increased.
3. More employees, students and alumni will help to convey a unified and attractive image of SLU.

Priority measures to achieve the intermediate objectives

a) **Increase commitment to SLU**

Motivation: An active discussion on SLU's identity and objectives will contribute to increased knowledge and understanding of the organisation, and to increased commitment. All employees should be involved in discussions on how their own activities contribute to the whole of SLU and how collaboration within the university can be developed. This measure is linked to intermediate objectives 1 and 3. Also measure a) in the Employees focus area, (see 4.1) can contribute to increased commitment.

What will be achieved by 2020: All departments/divisions will conduct ongoing, broad discussions on the manner in which they contribute to SLU's profile and objectives.

Implemented by/decided by: Heads of department and heads of division.

b) **Make it easier for staff and students to convey a unified and attractive image of SLU**

Motivation: A new communications platform will give staff and students better opportunity to convey a clear and modern image of SLU's profile and role in society, both nationally and internationally. This contributes to increased knowledge and understanding of SLU from our target groups. This measure is linked to intermediate objectives 1 and 3.

What should be achieved by 2020: Complete presentation materials will be used extensively by our employees and students. Procedures will be in place to give all new employees and students wide knowledge of SLU's activities and relevance.

Implemented by/decided by: The Division of Communication and all managers.

c) **Further develop harmonisation**

Motivation: The harmonisation work started in the project Future SLU has only been partially implemented. To facilitate internal collaboration, further efforts are required. This measure is linked to intermediate objectives 1 and 2.

What will be achieved by 2020: Administrative procedures and processes will have been harmonised between the faculties.

Implemented by/decided by: Head of university administration.

d) **Take advantage of SLU's geographic spread to develop and strengthen operations**

Motivation: SLU's geographical spread with many sites across the country is in many ways a strength, but also poses a challenge. An analysis of the benefits of the geographical spread and how SLU can take advantage of it in a better way is necessary. This measure is linked to intermediate objectives 2.

What will be achieved by 2020: An action plan will have been established and work in accordance with this will have begun.

Implemented by/decided by: Vice-chancellor.

5. Implementation and follow-up

5.1 The strategy's relation to other governing documents

Figure 1 shows the relationship between SLU's strategy and other strategies and documents that operations are governed by. Each document is based on the preceding stage and the content becomes more concrete at a later stage. Equal conditions, working environments and environmental work permeate the governing documents at all levels.



Figure 1. Description of how other multiannual policy documents connect to SLU's strategy.

The Board of Education, Council for Environmental Monitoring and Assessment and Council for External Collaboration are responsible for clarifying SLU's common strategy and overall principles with regard to education, EMA and collaboration in policy documents.

In the strategy for each faculty, the respective faculty's application of SLU's strategy as well as the three policy documents are clarified. In addition the faculties have a special responsibility for developing the strategies in terms of research specialisation, if necessary in consultation with each other. The departments are advised to develop multiannual plans for their operations based on the respective faculty strategy/strategies.

SLU's strategy is also the basis for the strategies developed by the SLU Library and the university administration.

5.2 Connection to the annual planning and follow-up process

The objectives, priorities and actions outlined in the strategy should be made concrete and implemented in SLU's annual process of planning and allocation of funds distribution. This is supplemented by specific policy documents, decisions on specific measures, etc. established by the vice-chancellor, head of university administration or other decision-makers.

In the same way, the strategies developed at faculty level are reflected in the faculty's allocation of funds, operational plans and other types of governing documents and decisions.

In the annual governing documents, decisions, etc. the responsibility for the implementation and links to resources are clarified. The university administration has an important role in supporting the core business during the implementation of the measures in the strategy (Chapter 4).

The Division of Planning is responsible for drawing up a detailed plan to follow up the actions of the strategy, where the division of responsibilities for follow up is also clarified. Depending on the nature of the measure, follow-up can be quantitative in the form of operational data (indicators) or qualitative through questionnaires or at the annual discussions between management and the closest subordinate level.