VISION

ÖREBRO UNIVERSITY
COURAGE TO REVIEW

ABILITY TO EVOLVE
FOREWORD

THE INCREASINGLY RAPID changes in the economy and in society call for a well-developed ability to adapt and adjust. This applies to both organisations and to individuals. In the last 20 years, the number of students within higher education has doubled and research output has grown by nearly as much.

This increase is fundamental if there are to be competitive businesses and good public services in the future. Since its establishment, Örebro University has played an important role for economic growth in the region and, by extension, in Sweden. The university has also become an increasingly important cog in the national wheel of higher education.

Today, Örebro University is a broad-based university with operations within all main branches of science. The journey here has not been an easy one. Our success stems from the fact that we possess the courage to review previously adopted positions and an ability to develop our operations. But we have not yet reached our final destination. Örebro University will continue to evolve by means of cooperation within and across academic disciplines, globally and together with businesses, organisations and society as a whole.

In this day and age, outstanding education and research are simply not enough even for a successful university to attract students and staff with their aim set high. Örebro University offers professional degree programmes that are among the best in the country and pursues internationally successful research. We must also offer an attractive academic and social environment.

The university will evolve together with and in the town of Örebro. Through dynamic interaction with the community, businesses and the local cultural scene, we are realising the vision for Örebro as a university town. These joint efforts have already borne fruit through early ventures with Örebro University Hospital and with the development of Alfred Nobel Science Park.

A university in tune with the times is an internationally competitive university which is collaborating with businesses and the wider community, while contributing to a raised level of knowledge, increased social welfare and sustainable economic growth.

HANS SANDEBRING
Chair, Board of Directors
IN A VERY SHORT space of time, Örebro University has gone from being a university college with a much limited mandate to a broad-based university with highly attractive degree programmes and internationally successful research. Our investments into professional degree programmes within medicine, psychology and law have paid off. Örebro University is now recruiting students on a nationwide basis, attracting a high number of applicants per place.

The growing range of study programmes on offer and the success enjoyed by our students lay the foundations for how Örebro University is perceived by those around us. The many graduates who contribute to the growth of society, businesses and organisations are most likely our foremost ambassadors.

We are taking further steps in our cooperation with businesses and the wider community to enable a range of courses and degree programmes that will equip students with the competencies that will be required in the future. Without such interaction, our successful bids for a medical programme and the new Master of Science in Engineering could not have come to fruition. Örebro University aims to offer students a complete study environment which promotes growth and helps them to take charge of their own learning.

The success of our courses and degree programmes emanates from the internationally renowned research pursued at the university. Without close links to research, the training offered would lose momentum. Already today, researchers at Örebro University are often cited and published in international scientific journals. But this is only the beginning. To attract more prominent researchers, we intend to break new ground for further international research collaborations and increase the external funding of our research. Our international focus will play an increasingly important part in the decisions we are making.

Örebro University is in no way a finished house. With this vision, we are continuing to build on the foundations we have laid this past decade. We are continuing to invest in leadership that has the courage to review previously adopted positions and in research evaluations that will have real consequences. Together with businesses and the wider community we are making plans for the future of the university, preparing to take on a prominent role in Örebro, in Sweden as well as in the international science community.
It is our goal to create conditions for learning and education that generate growth and renewal within a broad spectrum of social domains.”
ÖREBRO UNIVERSITY recruits its students on a nationwide basis. Every autumn semester, 3,500 new students embark on their studies here. Of these, eight out of ten are moving here from other parts of the country. In four years the number of applicants to our professional degree programmes has doubled and already, two of our programmes are among the top 20 in the country in terms of number of applicants. This is the result of a deliberate strategic move, which we will continue to pursue. Today we are offering professional degree programmes in business and economics, law, medicine, psychology, and social work. We also intend to reinforce the course range offered within engineering and within the fine, applied and performing arts.

Advanced academic training is a long-term strategic investment for students and society alike. It is therefore the university’s mission to offer relevant and attractive study opportunities of the highest possible quality. Our programmes are designed to contribute to growth and renewal in a broad spectrum of social domains, while offering the students conditions that enable critical thinking and personal growth.

At Örebro University there is an inherent ambition for all degree programmes to have clear links to active research and to the doctoral programmes within the respective knowledge field and research domain. Consequently, the programmes must be distinguished by solid academic roots in combination with an explicit link to job market demands. That way we are building an attractive university with a broad scientific base and social relevance.

THORSTEN NYBOM
advisor to the vice-chancellor, professor of history
Since 2011, Örebro University offers a medical programme. At full capacity, it will accommodate 700 students. New facilities – Campus USÖ – designed for students and researchers, have been built immediately adjacent to Örebro University Hospital. The new building was completed in late 2013.

“The students and lecturers that make their way here set their standards high and are highly motivated. We want to provide the best possible conditions for them to succeed by creating the best medical training programme in the country. Judging by the favourable development we have seen so far, it would seem as if we are heading for success,” says Professor Ulf Tidefelt, head of School of Medicine.

Ulf Tidefelt argues that the university is building a programme that is entirely in line with generally recognised models and methods for how a modern medical programme should be run. Above all he is pointing to three conditions that are making it all possible:

- The ability to identify and implement experiences that have proven successful elsewhere
- The strength to create an inspiring environment where knowledge is promoted and where research and education empower each other
- The competence to facilitate problem-based learning which prepares the students for the demands and challenges of this modern age

“We are in a privileged position where we are able to cherry-pick among the experiences made by others. A great deal of preparatory work has been undertaken in terms of visiting prominent programmes and universities in the Western World. From there we have brought back the most successful ideas, the most important insights and above all the proven experience.”
Örebro University is maintaining a close and ongoing collaboration with University of Glasgow in Scotland, internationally renowned for its work with developing successful medical programmes.

By working closely together with Maastricht University in the Netherlands, there is also an influx of new knowledge within the learning field.

“We are putting great emphasis on students’ professional proximity to patients and fellow healthcare workers. To us, there are no separate clinical placement modules, instead the practical experiences are naturally integrated into the different components on the programme. The new training and research facilities adjacent to the University Hospital are essential to achieving the proximity to the medical profession that we want to offer our students.”

This creates a social and knowledge-driven environment which is to everyone’s benefit – students, lecturers, researchers, doctors and healthcare staff at the hospital, and patients.

“When the first medical students will graduate in the spring 2016, they will be prepared to meet the professional demands of today in a much better way than previous generations ever were. They will bring with them working methods that will make it possible to keep abreast with and work efficiently in a world of rapid development and change. And they will have learnt this from lecturers and supervisors that possess extensive educational and research expertise.”

An advanced understanding of medical ethics and patient communication is another component that is central to a modern medical programme and which, according to Professor Ulf Tidefelt, must not be neglected.

“Being a doctor is not just about making diagnoses, it is very much about being aware of your social responsibility and that you are working for the good of the patient and for the good of society.”

ULF TIDEFELT
professor of medicine,
head of School of Medicine
It is our goal to pursue free and creative research that caters to different needs, while striving for an approach that looks across and beyond boundaries. We are a university that attracts prominent researchers and forms partnerships that enhance the quality of our research.”
The university’s broad scientific base within education applies also to its research. The quality of research results is assessed based on their contribution to science, but also on the benefit they bring to society.

For our university to be characterised by internationally successful research, our research contributions should always meet the demands for quality made by the science community but also by society around us.

Reaching a position at the very forefront of research, whether it be research within the humanities, social sciences, natural sciences, engineering or medicine, naturally requires that any course of action is chosen purposefully both by researchers, faculties and the university management.

Measures are being put in place to safeguard the quality of research results, involving targeted action concerning quality and quantity in international publishing, strategic bibliometrics, performance-based allocation of research grants, and research-strategic funding initiatives. At the same time, the establishment and maintenance of active and long-term international collaborations with relevant prestigious research environments are considered a priority within all disciplines at the university.

Researchers and research environments are supported, stimulated and rewarded in different ways when it comes to increasing external research grant volumes, and consequently the prerequisites for international research collaborations.

With the courage to review and an ability to build on our research strengths within the different branches of science, the university will continue to consolidate its position on the international research arena.

Gunilla Lindström
pro-vice-chancellor, professor of chemistry
High quality and productivity are of vital importance and it means that the university must create a platform for itself and invest in highly skilled research expertise within a number of clearly defined areas to enable further growth. Our aim is therefore to establish a number of nationally and internationally leading research environments, a goal which we in part have achieved.

“Creating a strong environment and becoming ‘a household name’ within the discipline is the first step towards attracting prominent researchers and finding collaboration constellations that enhance the quality of the research,” says Professor Håkan Stattin, director of the research environment Center for Developmental Research, CDR, at Örebro University.

CDR’s focus is developmental psychology, and longitudinal research, in other words research that follows selected individuals over time, is conducted at the centre. By studying the stability of and change in people’s behaviour over time, researchers are able to test various theoretical models to determine the factors that function as drivers for development in the research participants. The centre is world leading within research on the significance of pubertal timing for girls’ development.

“By disseminating our findings in internationally renowned journals, the quality of our research is guaranteed and our ideas break new ground and become valuable keys for other researchers to use,” says Håkan Stattin.

In comparison with other higher education institutions in Sweden, Örebro University is holding its own in terms of average citation rates and there is a number of research teams that have reached levels of a first-rate international standard. In view of Örebro University’s brief history it is only natural that its total research output is not on par with the major multidisciplinary universities in Sweden. The challenge for Örebro University is to increase its research volumes while retaining or increasing research quality, and CDR is leading the way.

“At CDR, the level of ambition is high and within the research environment we share the responsibility for our activities as a whole – planning, data collection, analyses and publishing, but also funding and the maintenance of our databases. We provide our doctoral students with tools that help them to be theoretical and to the point, allowing them to formulate important research questions.”

“We provide them with methodological tools that make it possible to test these ideas. Sometimes we do not have
the specific skills required to do so in our own team. Then we make sure they receive training elsewhere. This often involves courses on methodology at universities in the US. It is the concurrent focus on theory and method, but also on scientific writing, that are the cornerstones of our operations – at all levels,” says Håkan Stattin.

Funding for individual research projects comes from national as well as international research funding bodies and in the last ten years, the centre has been awarded grants in excess of 13 million euros. CDR is collaborating with researchers in the Netherlands, Germany, Finland, the UK, Canada and the US.

“International rather than national recruitment of doctoral students and postdoc researchers has become the norm for us and we are frequently consulted by international organisations such as the European Association for Research on Adolescence, EARA, and the Society for Research on Adolescence, SRA,” says Håkan Stattin.

Equally important as the scientific contribution is the demand that research meets in society. CDR has conducted a national evaluation of the most common parent support programmes used by child and youth psychiatry and social welfare units in Swedish municipalities.

“Our goal is to gain new insights into negative trajectories, but also to study good development paths over time. In the long term, this will offer us solutions to problems, scientific as well as social ones,” concludes Håkan Stattin.

HÅKAN STATTIN
professor of psychology

In October 2015, the results of the internationally prestigious Times Higher Education World University Rankings 2015–2016 were announced. Universities worldwide are assessed on a number of criteria: teaching, research, research influence, international outlook and knowledge transfer. Örebro University enters the list at number 334 out of the 801 universities that are included in this year’s ranking.

To qualify for Times Higher Education World University Rankings there are two main criteria. Universities must teach undergraduates and their research output must amount to more than 1,000 articles per year over the five-year period 2010–2014.

“We are particularly pleased to see that it is the result of the citations analysis, which indicates our research influence, that lands Örebro University a spot in the top half of the total ranking. Looking merely at the citations analysis, Örebro University earned the place as number 81 in the world,” says Örebro University’s Chief Planning Officer Joakim Kindgren.
Örebro University’s goal and mission is to contribute to regional as well as to national growth. By pursuing cooperation with businesses, the public sector and various organisations, Örebro University is creating strong and community-based operations, contributing to disseminating knowledge and innovation power. The structure in place for our innovation and external relations efforts helps us to provide the right tools and opportunities for education and research to boost the benefit they bring to the community. We are contributing to competence management, business development and innovation through close cooperation with external partners. Two examples are the Careers Centre and Örebro University Holding AB. The Careers Centre makes easy the contact between employers and students, and the holding company turns knowledge into resources that are of great benefit to society.

Anna Ragén
head of external relations

It is our goal to contribute to a raised level of knowledge, increased social welfare and sustainable economic growth through broad-based interaction with the wider community which is characterised by mutual benefit.”
INTERACTION WITH THE WIDER COMMUNITY RAISES THE QUALITY OF RESEARCH

ÖREBRO UNIVERSITY is an important driving force for development as well as for growth through its active collaboration with different operations and organisations. The research environment Man-Technology-Environment, MTM, which plays an important role in the monitoring of environmental pollutants, is a good example of this.

MTM is often employed on the local, national and international level. The research environment is one of the United Nation’s reference laboratories in the environment programme UNEP, it is part of the American Waters Corporation’s Centers of Innovation Program, and works in close cooperation with several businesses in the region. The collaboration with the UN has given the research environment a world-wide reputation for its excellent research and for its work with building analytical competence in developing countries with the aim of tracing and reducing environmental pollutants.

“At the same time, businesses and organisations are given access to the technical and scientific help they need to create profitable operations, which our collaboration with Waters is a clear example of.”

Waters Corporation is a leading manufacturer of sophisticated analytical instruments and there are Centers of Innovation across the globe. MTM is the first in Scandinavia and this recognition gives the research environment access to sophisticated analysis technology.

“They provide us with leading-edge technology which we test, evaluate and develop further for the analysis of environmental pollutants. This two-way exchange can be found within most collaborations at all levels and we are working actively to find new pathways where research and benefit to society intersect. At the local level we have for instance initiated a new project on reclamation of mining waste.”

The researchers have identified waste from mines and steelworks as an underrated raw material resource and have demonstrated that what at the moment is viewed as an environmental problem may, with the right technology, actually become a resource. The goal is to set up a network in the Baltic region between universities, research stakeholders and small and medium-sized companies.

“This would reinforce regional trade and industry, an environmental problem would be addressed and important raw materials would be put to use. These are but a few examples on how we are contributing with innovative technology and knowledge to increase social welfare and sustainable economic growth,” says Bert van Bavel.
Since 1999, Örebro University has evolved from a university college with 12,000 students to a university with 17,000 students. 130 professors, some 500 lecturers and some 500 doctoral students come to work here and the number of partnerships formed with national as well as international stakeholders is constantly growing. A condition for the university’s continued success in terms of growth is that it is an attractive place for work and study. We are therefore working purposefully to create an environment which is characterised by an open and inspiring climate, where initiative is encouraged and good performance is rewarded. That way we are utilising people’s commitment and building a quality culture that permeates every aspect of our operations. We want everyone to feel a sense of pride and joy over what we are accomplishing here at Örebro University.

Louise Pålsson
university director
SUCCESS THROUGH COMMITMENT

already when he was a doctoral student at University of Tübingen, Germany, Achim Lilienthal was recruited to join Örebro University’s Centre for Applied Autonomous Sensor Systems, AASS. That was ten years ago. Today, AASS has some 50 researchers and doctoral students with cutting-edge expertise from some ten countries. It is one of Sweden’s major research environments within the field.

“Already when I started working here, almost ten years ago, I was drawn to the open climate and the creativity and the fact that competencies within so many different fields and from so many different countries came together here. It is an invaluable environment for this type of research, where progress often requires collaboration across several different fields and where new solutions are born out of and developed through discussion.”

The research expertise is high. The work involves developing intelligent and autonomous robots that can perceive their environment, navigate in it and interact with other robots and with humans. Achim Lilienthal’s research team develops, among other things, robots with the ability to trace and chart gas leaks in outdoor environments. This work is groundbreaking for the research into cognitive systems, a field in which the team are world leaders.

“The funding opportunities are good and the support we receive from the university gives us scope for basic research which is significant for the development of robotics in the medium term. The support and teamwork create a working environment that breeds success. That is why I choose to work here.”

No hassle makes for a good study environment

Linda Norberg is doing a law degree and is one of the 17,000 students that are training at Örebro University. To her, a good study environment is about quality, security and a hassle-free student existence.

“Short distances to student accommodation, leisure activities and those fundamental practical things that make life easier are important. I want to know that the degree programme is of high quality and I want to attend lectures with competent and dedicated lecturers. Örebro University meets a lot of those basic criteria and I can focus on what I am here for and allow myself to be forward-looking.”

At the same time there is naturally room for improvement. The university is therefore working purposefully with surveys and student participation in order to improve the study environment. Students are increasingly prepared to contribute to these efforts. One reason being, according to Linda Norberg, that the management of the schools and of the university as a whole are taking students’ advice and that it is paying off.

“My impression is that Örebro University is investing in the future. There are positive developments all round – study space has been in focus and the number of new study areas on campus have increased, new facilities are being built, and there is an ambition for the university to produce good results and make their mark. And as students, we are invited to be a part of this development, creating tradition. That is a great feeling.”