



Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

SLU - Mission Statement

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.

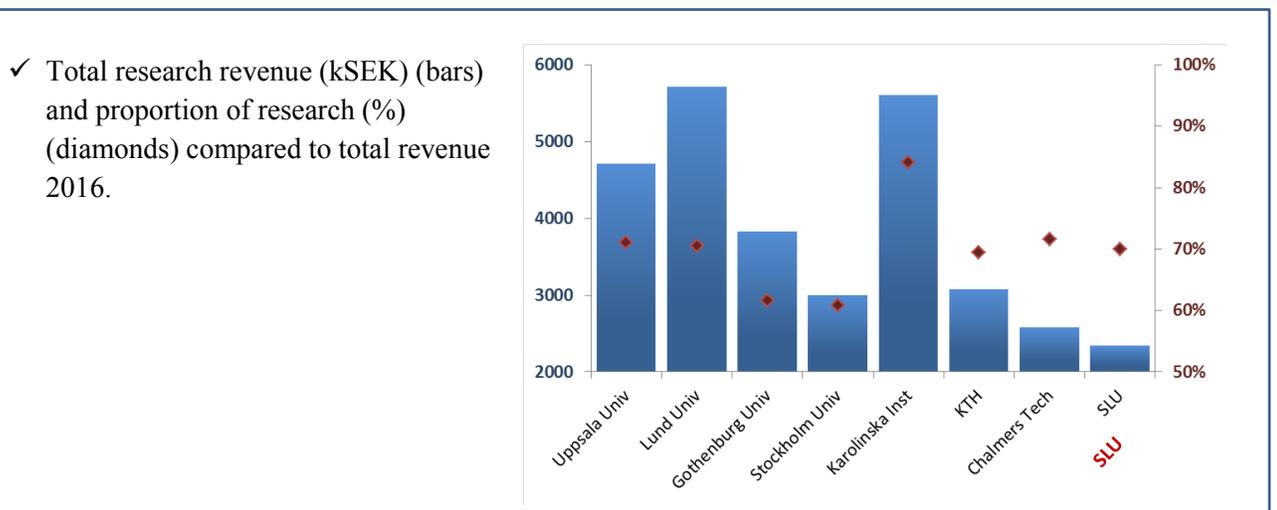
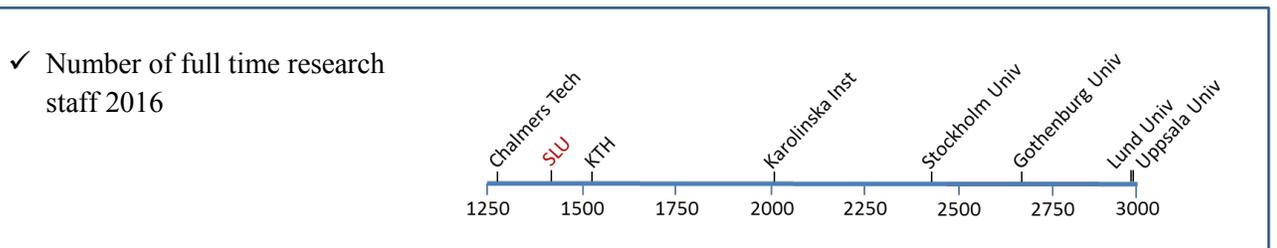
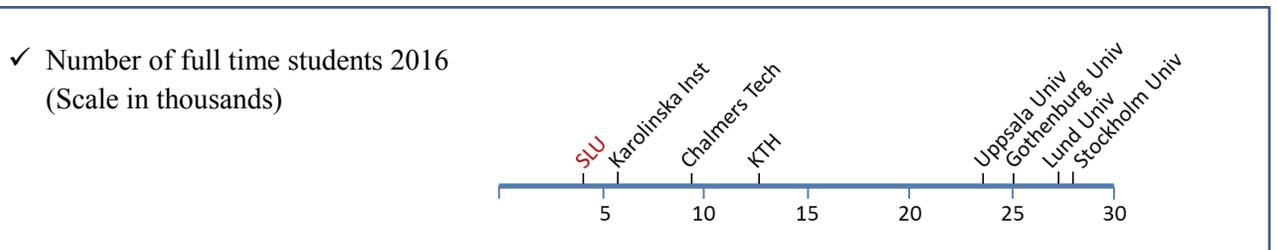
The peculiarities of SLU in the Swedish landscape of higher education institutions

- SLU is the only Swedish University that takes its assignments from the ministry of enterprise and innovation. All other higher education institutions take their assignments from the ministry of education and research.
- SLU is the only Swedish sectoral university with a distinct focus on agriculture and forestry. Though, the sectors has gradually broadened and developed to include as well as ...
- As a University originating from the need of scientifically based knowledge in our sectors, collaboration with our stakeholders has historically been an important and distinguishing part of University operations.
- In addition to the common assignments in education and research, SLU has a unique assignment to perform environmental monitoring and assessment. Through the assignment SLU contribute knowledge for the sustainable use of natural resources.
- SLU is geographically spread over Sweden with three main University campuses: Alnarp (south), Uppsala (middle), and Umeå (north). The distance between Alnarp and Umeå is approximately 1 200 km.
- SLU:s main campuses are co-localized with three other major Swedish universities, in Alnarp with Lund University, in Uppsala with Uppsala university, and in Umeå with Umeå university.



- Among Swedish universities, SLU has an unusually large proportion of research compared to education, as measured by revenue. In 2016 research made up 70% of the total revenue.
- SLU has several professional programmes that are unique among Swedish universities, e.g. landscape architecture, veterinary medicine, agricultural and rural management, and forest management.

A few comparative statistics



Sweden in international comparison

This is an excerpt from a report by the Swedish Research Council. The full report can be found at: <https://publikationer.vr.se/produkt/the-swedish-research-barometer-2016/>

The purpose of this excerpt is to give the panel evaluators in KoN2018 a brief overview of the Swedish research system.

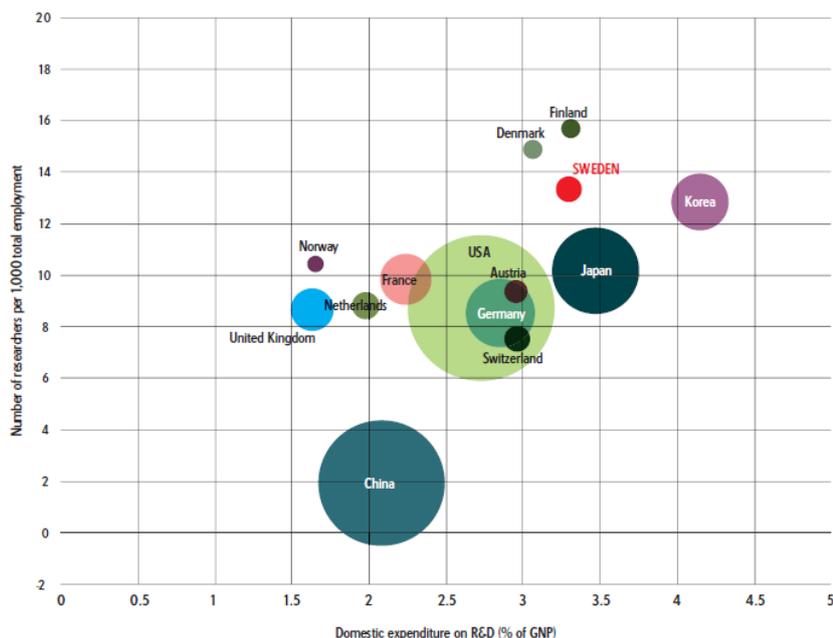


Figure 1. Number of researchers per thousand total employment in relation to domestic expenditure on R&D as a percentage of GDP in 2013. Sweden is compared with a selection of other countries. The area of each circle corresponds to that country's share of the total R&D expenditure of all the countries included in the figure. Source: OECD.

R&D spending

In contrast to several other countries, Sweden has reduced its spending on R&D in relation to GDP during the last decade. This reduction is caused by a decline in the business sector's contribution to R&D. Despite this, Sweden is still one of the countries that invests most in R&D in relation to GDP – 3.3 percent in 2013 – and allocates most government funding to R&D in relation to GDP (0.9 percent).

In the countries included in the Research Barometer, most R&D is carried out within the business sector. The figure is about 70 percent in Sweden, as in Switzerland, Finland and Austria. When it comes to R&D within the higher education sector, the proportion in Sweden is relatively high, just as it is in Switzerland, Finland, Austria, Denmark, the UK, the Netherlands and Norway. In all these countries, the figure is around 30 percent of all R&D.

The personnel in the R&D system

Sweden and the other Nordic countries have a comparatively large proportion of researchers in relation to the total population. Sweden now has the largest share of researchers (just over 1 percent), followed by Finland, Denmark and Norway.

Women are a minority among the researchers in all of the countries compared in the Research Barometer. In Japan, for example, less than 15 percent of the researchers are women. Of all the countries, the UK has the most equal gender distribution with 38 percent female and 62 percent male researchers. The Nordic countries follow closely after the UK.

The UK and Switzerland have a comparatively high proportion of researchers in the higher education sector, while other countries employ a larger proportion of researchers in the public sector, such as Norway, Germany and China. In Korea, Japan and Sweden the largest proportion of researchers are active in the business sector. The distribution of researchers in Sweden reflects the structure of

the R&D-system, with little R&D in the government sector outside the higher education sector, and a R&D-intensive industry.

Swedish publications in an international perspective

Research results can be defined and described in many different ways. The Research Barometer focuses on scholarly article production in terms of volume, research profile and citation impact. Citation impact is measured as the proportion of scholarly article production that is found among the 10 percent most cited publications in the world, within each subject area and year.

During the period 2002–2004, Sweden and Switzerland shared the top spot if countries are ranked based on the number of publications in relation to the population. Since then, Sweden has dropped to a fourth place, while Switzerland, Denmark and Australia have assumed first, second and third place.

Sweden has a large share of highly cited publications and this proportion has increased somewhat in recent years. However, several other countries have had even bigger increases. Sweden now belongs to a group right behind the leading countries in the world. Singapore, Switzerland, the USA, the Netherlands and the UK are at the top of the list.

Sweden's research profile is broad, with a relatively high research activity within clinical medicine and social sciences, and with less activity within mathematics and chemistry. If research profiles are compared, a pattern emerges where Sweden, together with the USA and several countries in Western Europe, has a profile characterised by high citation impact within most research areas. Emerging research countries, like China and Korea, are more specialised.

International co-publication

Sweden is one of the countries with the highest share of international co-publications. The proportion of Swedish publications that were co-published with researchers in the EU countries (with the addition of Norway and Switzerland) has increased slightly over the last 35 years. In 2015, they amounted to more than 70 percent of all Swedish international co-published articles. However, the largest increase has been for co-publications with researchers in Asia. When it comes to individual countries, the USA is the country with which Swedish researchers co-publish the most.

Swedish researchers' international co-publishing is increasing in all research areas. The average of internationally co-published articles was 64 percent of all articles in 2015. However, there is great variation between the areas. International co-publishing is considerably more common within geosciences and physics, than within the humanities and the social sciences.

The Swedish research system

R&D spending in Sweden

The total national expenditure for R&D in Sweden in 2013 amounted to just under SEK 125 billion. The business sector provided SEK 76 billion while the public sector contributed with SEK 36.5 billion.

Within the higher education sector, the government was the largest funder of Swedish R&D. State funding has increased by 25 percent during the last decade. Of the SEK 34 billion government spending in 2016, about half went directly to HEIs. The rest was distributed to research funding bodies, civil government agencies and defence agencies.

Some 80 percent of the R&D funding to Swedish HEIs come from the state. The EU and Swedish companies provide just under 5 percent each.

R&D funding to Swedish HEIs, calculated as fixed prices, has increased by as much as 54 percent from 2001 to 2013. This increase has not led to any redistribution among the different categories of institutions. 90 percent of R&D funding within the higher education sector still goes to the comprehensive universities.

If the increase in funding to the HEIs is distributed per field of research, it is seen that medicine and health sciences, as well as natural sciences, have had greater increases from 2011 to 2013 than the other areas.

The personnel in the Swedish research system

The composition of the personnel at Swedish HEIs has changed radically from 2001 to 2015. All staff categories apart from lecturers and career development positions have increased in number. Within the category “Research and teaching staff”, the growth was almost 80 percent. In 2015, 35 000 people belonged to this category.

Doctoral students devote about 70 percent of their working time to R&D. As they comprise the largest staff category (some 18 000 altogether in 2015), this means that about 37 percent of all R&D at Swedish HEIs is performed by doctoral students.

When different categories of HEIs are compared, the degree of domestic recruitment of researchers and teachers (i.e. with a degree from another Swedish HEI) is greatest at university colleges and new universities. It is lowest at comprehensive universities and specialised universities.

The proportion of women among recent PhD graduates and within various staff categories in the higher education system has gradually increased in recent decades and is now approaching 50 percent, even if the proportion of women varies in the different fields of research. The exception is the category “Professor”, where only 25 percent are women.

Scholarly publications at Swedish HEIs

Sweden is one of the countries that has the largest production of scholarly articles in relation to its population. By far the largest share of articles is produced at the comprehensive universities and specialised universities. The university colleges and new universities show an annual increase in publication volume of some 8 percent during the period 2002–2014. Their combined share of the production of articles in Sweden has increased from 4 to 8 percent during that time.

When it comes to the proportion of highly cited publications, the comprehensive universities, the specialised universities and the category “others” (for example, companies and government agencies outside the higher education sector) score over the global average during the years 2012–2014. For university colleges and new universities, the share of highly cited publications was lower than the global average during the same period.

An analysis of how citation impact is distributed over the different research areas and HEIs shows that there is no obvious correlation between the degree of specialisation and citation impact. The areas that have a high degree of citation impact are often relatively small. Universities that have a high citation impact are generally above the global average in many areas.

Approximately 13 percent of all Swedish publications are joint publications by Swedish HEIs and other sectors of society. Joint publications are most common in clinical medicine, and least common in mathematics and the arts and humanities.

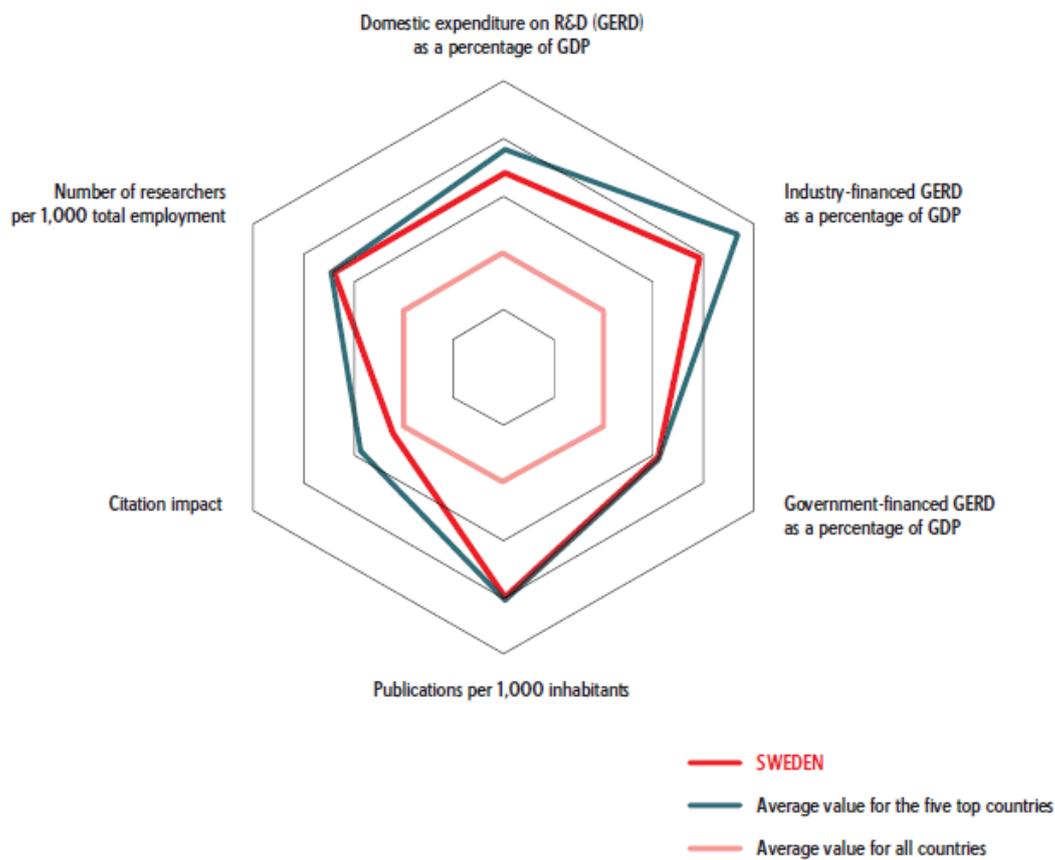


Figure 2. Swedish R&D in an international comparison, using a selection of indicators. Sweden's position is shown in relation to the average value for all countries in the database and the average value for the five top countries in each category. More detailed information about the indicators is provided in the List of Figures and Indicators. Source: OECD (2013 and 2014) and Thomson Reuters (publication year: 2012–2014).

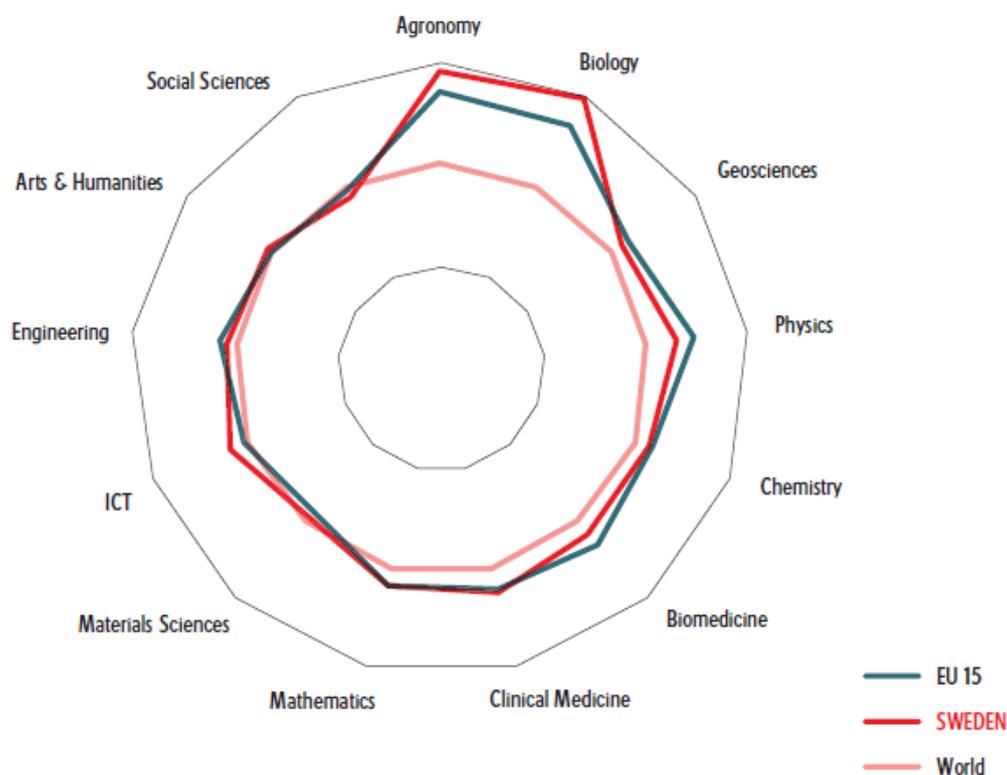


Figure 13. Citation impact of Swedish research within various research areas (proportion of the country's scholarly publications within the area that are among the 10 per cent most highly cited in the world). Sweden is compared with the EU 15 countries and the world. Publication years: 2012–2014. Source: Thomson Reuters.