

Factsheet on Denmark: Universities

Noteworthy facts about the university system in Denmark include the following:

- The system comprises 12 publicly funded research universities, which differ in size, academic profile and scope.
- In 2003, a university reform led to a new university management system, in which the Board is the university's highest authority and appoints the rector.
- In 2004, nearly 110,000 students attended Danish universities and almost 10,000 researchers and teachers were employed.
- In 2005, university expenditure totalled DKK 14 billion (approx. EUR 1.9 billion).

There are two kinds of universities:

- Five multi-faculty universities, which conduct research and offer three-year research-based bachelor (BSc/BA) programmes, two-year master's (MSc/MA) programmes, and three-year PhD programmes.
- Seven specialist universities, which conduct research and offer research-based education targeting a few clearly defined professions.

The five multi-faculty universities are: *The University of Copenhagen*, founded in 1479; *The University of Aarhus*, founded in 1928; and the universities of *Roskilde*, *Southern Denmark* and *Aalborg*, all founded in the 1960s and 70s. Geographically, the universities cover the whole country, although the majority are located in the Copenhagen area.

A bachelor degree qualifies students for a professional career and for further studies. Most students choose to continue in a master's programme. The master's programmes usually include one or two of the major fields of study of the bachelor programme. Independent research activities and a master's thesis (equivalent to six months of full-time studies) are required. A master's degree qualifies students for a professional career and for scientific work. The PhD degree is obtained after three years of research, participation in research courses, teaching and a public defence of a thesis.

The seven specialist universities are: *The Technical University of Denmark*, *The Royal Veterinary and Agricultural University* and *The Danish University of Pharmaceutical Sciences*, which were all founded between 1829 and 1892, and are located in the Copenhagen area; *Copenhagen Business School*, which is about 80 years old; *The Aarhus School of Business*, which dates back about 60 years; and *The Danish University of Education* and *The IT University of Copenhagen*, which were both granted university status by the new University Act in 1999.

In table 1, the differences in size (students, expenditure and staff) among Danish universities are illustrated.

Table 1. The Danish universities

| | Students | Annual student outcome ¹ | Total expenditure 2005 (DKK million) | Faculty ² |
|--|----------|-------------------------------------|--------------------------------------|----------------------|
| The University of Copenhagen | 30,330 | 17,056 | 3,732 | 2,648 |
| The University of Aarhus | 19,526 | 11,307 | 2,320 | 1,985 |
| The University of Southern Denmark | 11,006 | 7,788 | 1,454 | 1,159 |
| The University of Aalborg | 10,235 | 7,621 | 1,403 | 1,343 |
| Roskilde University | 7,831 | 4,587 | 562 | 524 |
| Copenhagen Business School | 11,742 | 8,233 | 819 | 704 |
| The Aarhus School of Business | 5,160 | 3,784 | 328 | 319 |
| The Technical University of Denmark | 4,892 | 4,709 | 1,690 | 1,362 |
| The Royal Veterinary and Agricultural University | 3,174 | 1,965 | 1,159 | 738 |
| The Danish University of Pharmaceutical Sciences | 1,255 | 860 | 242 | 199 |
| The Danish University of Education | 2,239 | 1,133 | 296 | 141 |
| The IT University of Copenhagen | 972 | 469 | 114 | 152 |
| Total | 108,362 | 69,512 | 14,119 | 11,273 |

In addition, Denmark has 16 institutions offering higher education within the sphere of culture (academies of music, drama schools, academies of fine arts, design schools, schools of library and information sciences, etc.).

Although the most common language of instruction is still Danish, most universities offer courses as well as whole programmes in English. More information about courses and programmes in English can be found at www.studyindenmark.dk.

Challenges and initiatives

Denmark should have top-level universities; universities with strong academic environments that can retain and attract talented students and researchers, and which can provide the foundation for a dynamic development in society.

For the present time, however, the distribution of basic funding at universities does not reward high quality. And there is no systematic testing of the quality

¹ Students who pass their exams are considered to have completed one year of full-time studies.

² Faculty includes permanent and part-time members of faculty computed in terms of person-years. The universities also employ technical and administrative staff.

of the programmes and their relevance to society. There is a need to make quality and relevance the key sustaining principles.

Key initiatives:

- The basic funds of universities should be distributed according to an overall assessment of the actual results and objectives relating to the quality of research, teaching and knowledge dissemination.
- Government research institutions should be integrated in universities, so that their research also underpins the study programmes.
- An independent accreditation body should be set up to evaluate all university programmes according to international standards. The ministerial approval of new programmes should be abolished.
- Bachelor programmes should be well-rounded courses of study that also aim to secure employment. Also, universities should develop a broader range of postgraduate programmes targeted at different parts of the labour market.
- Universities should establish employer contact panels that ensure systematic dialogue with employers regarding the study programmes' quality and relevance for society.
- The number of PhD scholarships and industrial PhD students should be doubled. The increase should occur especially within the fields of natural science, engineering science, ICT and health science.
- Universities should establish elite master's programmes and advanced trainee courses in private enterprises for very talented bachelor degree holders.
- Quality teaching should be rewarded in the same way as quality research. Associate professors and professors should take part in the teaching on the programmes at all levels.
- Universities should have greater freedom to attract highly talented researchers by applying pay in a flexible manner.
- Universities should set specific objectives for the utilisation of research results and for cooperation with external parties, including the business community. The results should have a bearing on how much funding each university is allocated.

Further information:

Progress, Innovation and Cohesion - A summary of the Government's "Globalisation Strategy" (May 2006). Available in English at www.globalisation.dk

Contact person: Nils Agerhus, Head of Division, Ministry of Science, Technology and Innovation, tel. +45 33 92 97 00.