



## Challenges facing the Danish universities - issues to be discussed during the OECD visit

### 1. Danish universities deliver high quality education and research in spite of limited funding

All international investigations find the research quality at Danish universities to be at a high level. The publication rate is high, and what is published is frequently cited and has a great impact.

The academic level of education is generally high i.a. due to the tradition of academic progression. This, to a certain extent, may conflict with wishes of increased mobility. It is our impression that Danish students are doing very well abroad.

Danish university education is inexpensive. The implementation rate is around average for the OECD countries, but it varies considerably from one subject to another, and it is important for the universities to reduce dropout percentages.

Relatively few means are used for administration and management.

### 2. Research and university education funding is below international average

Danish investments in university education are below the OECD average. Denmark spends a lot of money on education, but allocations are uneven. Denmark has the most expensive basic school system in the whole world, but allocations for higher education – especially university education – are not abundant.

Public research investments in Denmark have been stagnant during the last few years. Compared to the rest of Europe a relatively large part of the public research investments are allocated to the government research institutions.

Financial investments in research and university education are limited, especially as compared to funding in the other Nordic countries.

### **3. Quality insurance**

Evaluation has been an issue for a long time in Denmark. Education has been systematically evaluated by the universities themselves and by the Danish Evaluation Institute. The study programmes are covered by ministerial orders and a corps of external examiners, quite unique in an international context. The quality is assured also by the users of the system, the students, who have much influence on their education.

Generally, there are no central research evaluations, but the individual university conducts more or less systematic evaluations. Some universities experiment with evaluation methods in fields where international citation etc. has no meaning – as for instance Danish history.

### **4. The rather limited number of university degree holders**

Denmark does not have many university degree holders as compared to other countries. There are various reasons for this. Teachers and nurses are trained at colleges outside the university sector, but on the whole the number of university degree holders is rather limited. The bachelor's degree was introduced not so many years ago, and thus there is not a long tradition for making use of it, although today it is available nearly everywhere in higher education.

As is the case for a considerable number of western countries, Denmark has difficulty in attracting students for science and technology.

There are tendencies toward academic drift. Thus colleges of education and other institutions would like to look like or to be universities. Denmark only applies rather limited funding to university research. To spread this funding over more institutions would scarcely improve the quality of research. Denmark already has a rather big number of universities, i.a. because of the specialised universities such as the Danish University of Pharmaceutical Sciences and the Danish University of Education. After a long period of political pressure for merging institutions and less universities, the Govern-

ment has recently decided to have one more university – an IT university of small proportions with an academic staff of only 36.

## 5. Danish universities are international

Danish researchers are much engaged in international collaboration and have the highest figures for co-publishing in Europe. Co-publishing takes place with other European countries as well as the USA. Student exchange is quite considerable (one third of all Danish students spend a semester at a foreign university). The number of foreign students in Denmark are rather high – considering the language area!

But at the net level, Denmark is exporting researchers, and only very few foreign students pay to have their education in Denmark.

## 6. Staffing

The percentage of persons aged 50 to 60 on the research staff is heavy, but the percentage of younger staff has increased during later years.

Due to the heavy income tax in Denmark and the general equal distribution of incomes, recruitment of Western European researchers seem to be difficult.

No doubt there will be problems in recruiting for certain areas, not least because the increasing private research will increase competition for the bright.

## 7. Collaboration with industry and society

The Danish education system is concentrated on practice both as far as subjects and pedagogics are concerned. There is a tradition for collaboration with industry, and Danish universities have an important share of external projects.

The commercial approach to research projects is rather new, however. Universities are in a transition period, i.a. to secure more varied funding. This transition cre-

ates a series of dilemmas to which universities and the outside world must find an approach.

The IPR legislation a couple of years ago increased the incentives and obligations of universities to engage themselves in the patent issue. So far it seems to both industry and universities that this has led to increased utilisation of the investigations made at the universities.

## **8. The detailed management of the Danish universities**

At present universities, as all other kinds of state business, have to follow rather detailed rules for application of money, employment policy and educational offers. Management models are found in the public sector, not in the private.

Ideas of increased freedom for the universities have been voiced, but so far they have not been realised.

### **Enclosed tables:**

- Number of scientific publication
- Number of highly cited publications
- Expenditure per student in tertiary education
- Annual expenses per student in basic school, upper secondary school, university, etc.
- R&D expenditures as a pct of GDP
- Share of the government research institutions in the public research funding
- Share of Co-publications
- Exchange students
- Foreign student in university level education
- Age profile for the scientific staff