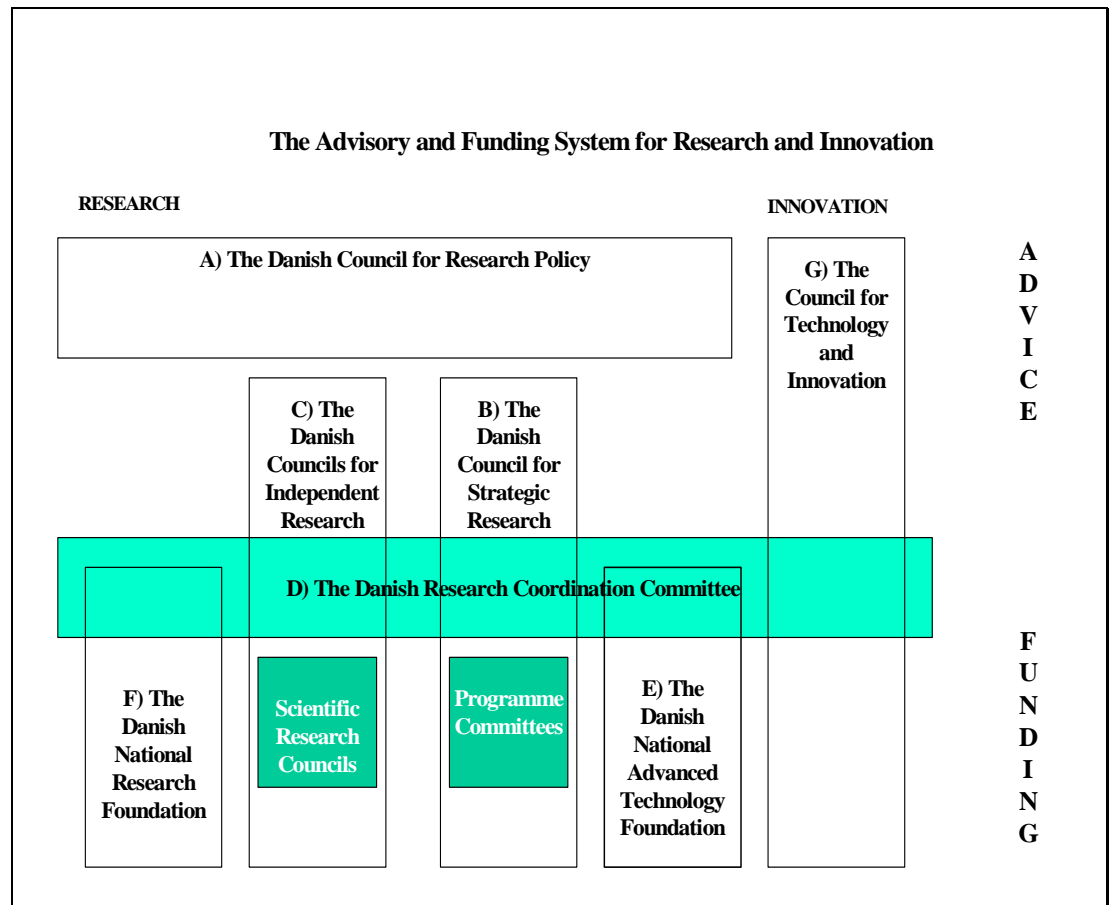


Factsheet on Denmark: Public Research



The Danish Advisory and Funding System for Research and Innovation consists of the following units:

A) The Danish Council for Research Policy

The council advises the Minister for Science, Technology and Innovation in matters concerning research policy – including the framework of research, the major national and international research initiatives, and the development of national research strategies. The Parliament and other ministers may also ask the council's advice. Advice may be given upon request or on the council's own initiative.

B) The Danish Council for Strategic Research

The council supports research in politically prioritised research areas and contributes to strengthening interaction between public and private research. Furthermore, the council is responsible for seeking out new research trends and providing professional research advice to the Minister for Science, Technology and Innovation. Private and public institutions can also receive professional research advice.

The council is also responsible for approving the allocation procedures and conducting a professional assessment of the incoming applications in connec-

tion with the allocation of government research funds by the individual ministers.

C) The Danish Councils for Independent Research

The councils provide support to research based on the initiatives – both single-discipline and cross-discipline – of researchers themselves. The councils also provide scientific research advice in all scientific fields for the Minister for Science, Technology and Innovation, as well as for the Danish Parliament and Government. The councils consist of a Board of Directors and five scientific research councils.

D) The Danish Research Coordination Committee

The main task of the committee is to ensure the coordination between all government research funding, whether the funding is allocated at the institutions or under the auspices of public foundations. Furthermore, the committee prepares joint general guidelines for the performance of the funding function of the Councils for Independent Research and the Council for Strategic Research. Finally, the committee provides advice to the Minister for Science, Technology and Innovation as well as the Danish Parliament and Government on researcher training.

E) The Danish National Advanced Technology Foundation

The foundation's general objective is to enhance growth and strengthen employment by supporting strategic and advanced technological priorities within the fields of research and innovation. Furthermore, the foundation makes a special effort to promote research and innovation in small and medium-sized enterprises.

The foundation pays special attention to applications that fall within the areas of nano-, bio- and/or information and communication technology, including the interface between these areas.

F) The Danish National Research Foundation

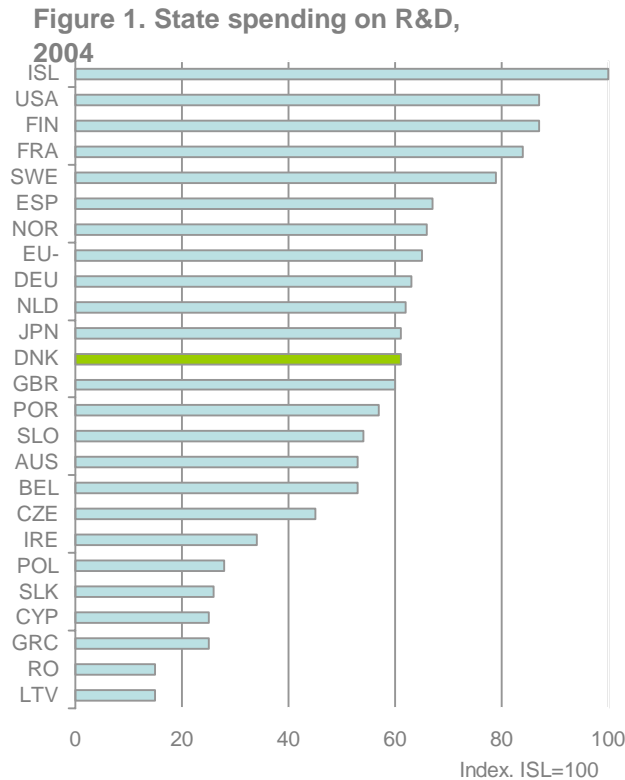
The foundation is an independent foundation that aims at strengthening Danish basic research (frontier research) within the natural sciences, the technical sciences, the health sciences, the social sciences and the humanities.

G) The Danish Council for Technology and Innovation

The council gives advice to the Minister of Science, Technology and Innovation regarding the scheduling and development of efforts to strengthen the future growth and innovation in the business community. The council also administers specific initiatives assigned to it by the Minister of Science, Technology and Innovation.

Public funded research in Denmark

Recent years' public spending on R&D in Denmark amounts to approximately 0.8% of GDP. As shown in figure 1, the spending level is close to the European average, although somewhat below the level of public spending on R&D in countries like Iceland, USA, Finland, France and Sweden.



Source: Eurostat, Statistics in focus – Science and Technology 5/2006. Data are indexed. Data for EU-15 and EU-25 are estimated by Eurostat.

The public R&D funds in Denmark are partly distributed to R&D institutions as institutional block grants and partly to specific R&D projects through open calls, with the aim of stimulating competition. One-third of the total public R&D funds were distributed through open calls in 2005.

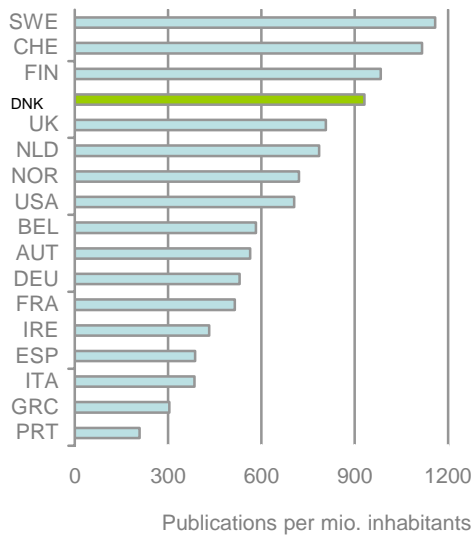
Admitted PhD students

The supply of PhD graduates is the main source of new scientists in Denmark. The number of recently admitted PhD students per year normally lies between 1,100 and 1,200. In 2004, however, the figure was 1,312.

Scientific publications and citations

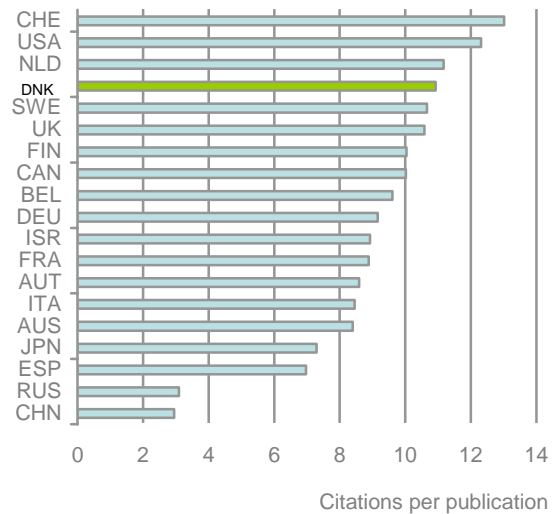
In terms of scientific publications, Denmark is one of the countries in the world with the highest output per million inhabitants, as can be seen from figure 2. Furthermore, as shown in figure 3, the Danish scientific publications are often quoted.

Figure 2. Scientific publications



Source: Science and Technology Indicators. Outlook, OECD 2004

Figure 3. Citations of scientific publications



Source: "ISI Essential Science Indicators Web based product from November 1, 2004"

Challenges and initiatives

Denmark is among the countries that conduct the most research. However, there is a need to improve public sector research even more.

Today, there is too little competition for research funding. And the funding is often spread too thinly. Investments in laboratories and equipment have not been given high enough priority. There is no tradition for measuring and evaluating the quality of research. Furthermore, Denmark's participation in EU research programmes is declining.

Key initiatives:

- Research and development should be strengthened. The objective is that public and private companies and institutions spend a total of at least 3% of gross domestic product (GDP) on research and development by 2010. Publicly financed expenditure on R&D should reach 1% of GDP in 2010, while private R&D should be spurred by improved framework conditions.
- At least 50% of the research funds should be subject to open competition. Increased competition will ensure that the funds go to the best researchers and the best research environments.
- A new model for competition between universities should be designed, so that funds will be targeted at large, long-term research projects.
- The rules for research grants allocated on a competitive basis should be revised, so that the grants cover the full costs of the institutions.
- The grant award procedures of the Danish Council for Strategic Research and the Danish Councils for Independent Research should be revised, with the aim of increasing the proportion of large, long-term research grants.

- A long-term Danish strategy for investments and priorities of major research infrastructures should be formulated.
- A larger proportion of the public sector research funds should be targeted at strategic research conducted within areas that can act as a driving force for increasing prosperity or remedy important social problems.
- The basis for the political prioritisation of strategic research should be strengthened. Once every four years, a catalogue should be compiled of themes for strategic research.
- The quality of Danish research should be measured and evaluated in a systematic way. A “quality barometer” should be established that gives a picture of how the quality of Danish research is developing.
- The rules should be amended so the research councils can allocate funding support towards international research cooperation.

Further information:

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

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