



FOLKETINGET  
STATSREVISORERNE



FOLKETINGET  
RIGSREVISIONEN

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Extract from Rigsrevisionen's report  
submitted to the Public Accounts Committee

# **The government's commercialization of inventions and investments in companies**

# 1. Introduction and conclusion

## 1.1. Purpose and conclusion

1. The Danish state is funding new research projects with the potential to develop into commercially successful and innovative research-based companies. For example, the government is co-funding the universities' patents on technology inventions for the windmill industry, the development of new vaccines, and it is investing capital in Danish entrepreneurial companies that are developing and selling advanced robot technology. In certain circumstances, the government can claim a share of a future surplus deriving from public funds invested in an invention or company.

This report concerns research institutions' commercialization of inventions and investments made in companies through funding programmes.

2. The study includes the University of Copenhagen and the Technical University of Denmark (the DTU), both under the Danish Ministry of Higher Education and Science, and the Danish Growth Fund (Danish state investment fund) under the Danish Ministry of Industry, Business and Financial Affairs. The two universities were selected for the study because they combined account for around every second invention made and for approx. 75% of the gross revenue generated across public research institutions. The Growth Fund was selected due to the size of the fund and because it is the only public investment fund in Denmark that claim a return on its public investments.

3. The purpose of the study is to assess whether the public research institutions and funding programmes selected for this study ensure that inventions, new technology and innovative solutions are commercialized to benefit the Danish society, and whether the government profits as a result of the commercialization. The report answers the following questions:

- Have the University of Copenhagen and the DTU ensured that the Danish society benefits from a commercialization of state-funded inventions and the universities profit from a commercialization?
- Has the Danish Growth Fund pursued an investment strategy that fosters the commercialization of new technology and innovations, and has the fund secured the government a return on its investments?

### Inventions

Rigsrevisionen's definition of an invention is based on the requirements of Danish intellectual property law. According to these requirements an invention must be industrially applicable, be a novelty and be characterised by a high level of inventiveness. It should also be possible to describe and reproduce the invention.

The Consolidated Patents Act (Consolidated Act No. 90 of 29 January, 2019), section 1, sub-section 1, section 2, sub-section 1 and section 8, sub-section 2.

### Commercialization

Rigsrevisionen defines commercialization in this report as commercial use of patentable inventions. Commercialization can be in the form of sale of patents or license agreements with private companies.

Commercialization of research and inventions is also referred to as *tech transfer* or *tech trans.*

In addition to answering the questions above, the report also provides an account of the general level of commercialization of inventions in the research institutions in the years 2010 to 2021. The report also includes a mapping of active public support and funding programmes with an indication of whether the programmes offer an opportunity for the state to get a return on its investment in the companies.

Rigsrevisionen initiated the study in January 2022 at the request of the Danish Public Accounts Committee, see appendix 1.



## Main conclusion

**The University of Copenhagen, the Technical University of Denmark (the DTU) and the Danish Growth Fund have ensured that the Danish society benefits from the commercialization of inventions, new technology and innovative solutions and that the government receives a return on its investment in accordance with applicable regulations.**

### **The research institutions take out patents and commercialize inventions**

From 2010 to 2021, researchers in public research institutions made 5,068 inventions. During the same period, the research institutions filed 1,845 applications for patents that were subsequently commercialized in 1,670 sales agreements and license and options agreements, and they set up 242 new research-based spin-out companies. Combined, these activities generated gross revenues of approx. DKK 493 million to the research institutions.

### **The University of Copenhagen and the DTU have ensured that inventions made based on public funding benefit the Danish society through commercialization**

The study shows that the University of Copenhagen and the DTU have established business procedures that adequately support the commercialization of inventions.

The study also shows that the University of Copenhagen has followed its business procedures and that the DTU, generally, has followed its business procedures in the cases reviewed by Rigsrevisionen.

### **The Danish Growth Fund has pursued an investment strategy that fosters commercialization of new technology and innovative solutions and has ensured that it achieves a potential return on investments**

The study shows that the business procedures established by the Danish Growth Fund are adequate and support the commercialization of new technology and innovative solutions funded by the Danish Growth Fund. The business procedures also support the fund in its efforts to achieve a return on the investments and they support that investments made are in accordance with the statutory objectives of the fund. Lastly, the study found that the Danish Growth Fund has followed its business procedures adequately in the cases reviewed by Rigsrevisionen.