

Danish National Research Foundation roundtable meeting on post-doc mobility, June 21, 2016

Policy recap

In autumn 2015, the Minister for Higher Education and Science asked the Danish National Research Foundation (DNRF) about our contributions to growth and job creation in Denmark. The foundation had previously shown that the Centers of Excellence contribute impressively to public patents and to spin-outs from universities (see the publication [Curiosity Pays Off](#)).

The DNRF was created to support the best of basic research in Denmark. Through the development of national and international talents at the Ph.D. and post-doc levels and the research in our Centers of Excellence, we contribute to economic growth and job creation as the post-docs find employment later in the Danish private sector. The majority of privately employed post-docs and Ph.D.s from our centers now work for large manufacturing companies, e.g., DuPont, Grundfos, LEGO, Mærsk, Novo Nordisk, Siemens Wind System, and Vestas. However, the financial sector is also a large employer, with companies such as ATP, Danske Bank, Jyske Bank, Nordea and Simcorp. Finally, there is a fairly wide range of smaller R&D-intensive employers, including a number of start-ups, e.g., Eurofins, Samplix, SCALGO, Sejet Plant Breeding and Quantumwise.

Across the world and in Denmark, the number of post-docs has increased dramatically over the past ten years. The vast majority of them would like to stay in academia. However, despite the brilliance and eagerness of the post-docs, the reality is that in many research areas only 10-15% will be able to continue their careers in academia. For the DNRF, the consequence is clear: many more post-docs need to find employment in the private sector, and this situation has the potential for a massive brain gain to the private sector in Denmark. We acknowledge our responsibility to secure the best transition to industry for the best-suited post-doc candidates.

To gain further insight into post-doc mobility, the DNRF invited former post-docs and their current employers, together with experts from academia and the ministry, to a roundtable meeting on June 21, 2016 to discuss three themes:

- *Why are Danish companies interested in hiring researchers from basic research environments?*
- *Why do Ph.D.s and post-docs from basic research environments choose careers outside universities?*
- *How do we retain the international talents that were attracted to Denmark through the basic research environments?*

The participants in the roundtable meeting were:

- o Senior Developer *Nele Boelaert*, Simcorp
 - o Corporate Vice President *Søren Bregenholt*, Novo Nordisk
 - o Director *Birger Eriksen*, Sejet Plant Breeding
 - o Permanent Secretary *Agnete Gersing* (excused), Ministry of Research and Higher Education
 - o Senior Vice President *Elise Hauge*, Simcorp
 - o Chair, Professor *Liselotte Højgaard*, Danish National Research Foundation
 - o Head of Secretariat *Karin Kjær Madsen*, Danish Council for Research and Innovation Policy
 - o Plant breeder *Lene Krusell*, Sejet Plant Breeding
 - o Director, Professor *Søren-Peter Olesen*, Danish National Research Foundation
 - o CEO *Kurt Stokbro*, QuantumWise
 - o Scientific Specialist *Daniele Stradi*, QuantumWise
 - o Professor *Anders Sørensen*, Copenhagen Business School
 - o Senior Adviser *Thomas Trøst Hansen*, Danish National Research Foundation
 - o Senior Scientist *Malene Vester-Christensen*, Novo Nordisk
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The recommendations from the roundtable in short

- Professors should actively provide career guidance to post-docs and Ph.D. students.
- Post-docs in academia should get a larger exposure to colleagues in the private sector – both scientists of the same age for inspiration and senior staff for career guidance to obtain better knowledge about the positive aspects of jobs in industry.
- Early in their careers, academic candidates should be exposed to research collaboration with the private sector – preferentially as master or graduate students.
- Danish companies should take a more active approach to developing networks within the relevant academic environments with the aim of recruiting excellent post-docs and strengthening private-public collaboration on innovation.
- The present stream of candidates is primarily from academia to the private sector; however, it is important to facilitate traffic in the opposite direction. The mobility of senior staff between the sectors should be promoted for the benefit of both industry and academia. Learn from best practices internationally, from DTU and others.
- The staff exchange as well as the career advice should be incentivized by various instruments.
- A number of initiatives should be undertaken to root the best foreign post-docs in the Danish private sector, including language courses, tax schemes, jobs for spouses, the possibility of staying longer than an education visa allows, etc.
- Postdocs should think careers in longer terms than two years and be aware of realistic opportunities, as it is widely their own responsibility.

The recommendations address the universities, industry, the government, and, last but not least, the post-docs themselves. These remedies may alleviate the post-doc stress and at the same time strengthen Danish industry through securing the best academic candidates.

The results of our previous survey of former post-docs and interviews are reported in our publication [The Post-Doc Challenge](#), and in Nature, July 7, 2016.

Prof. Søren-Peter Olsen, Director DNRF
Prof. Liselotte Højgaard, Chair of the Board, DNRF