

Note

UNIK experience gathering 2010

1 Background for UNIK

UNIK originates from a government strategy for Denmark in the global economy. The funds are being allocated through competition between universities and UNIK is in that way a part of the competitive research funding. With the UNIK initiative each university can submit proposals for major long-term research projects that are academically important for the university and for Danish research as such.

The minister of science, technology and innovation has pointed out 10 general principles for the design of the UNIK initiative:

1. To develop elite research
2. Only universities can submit proposals
3. The funding follows research not researchers
4. Funding for research *purpose* not for concrete research projects
5. No a priori distribution between different research areas
6. Competition between universities
7. Few, but major grants
8. No requirements for co-financing
9. Few fundamental application requirements
10. International collaboration and research education

In 2008 and 2009 the state budget allocated DKK 240M (approx. EUR 32M) each year for UNIK, i.e. at total of DKK 480M.

2 Preliminarily experience with UNIK

Part 2.1 will go through the process from the announcement of the call to the granting of funds while part 2.2 summarizes the experiences with the first round of UNIK.

2.1 Description of the process

The call was announced on the 15th of October 2007 with a deadline for application on the 1th of April 2008. The call and application forms were sent to all universities in Denmark and were announced on the webpage of The Danish Agency for Science, Technology and Innovation.

The proposals were reviewed by a panel consisting of international experts:

- Rector, professor Jarle Aarbakke (Chairperson), Norway
- President, professor Harriet Wallberg-Henriksson, Sweden
- Academy professor Leena Peltonen-Palotie, Finland
- Professor Bart de Moor, Belgium
- Professor Klavs F. Jensen, USA
- Professor Pär Omling, Sweden
- Professor Olli Ikkala, Finland
- Professor Geoffrey Channon, UK
- Professor Emeritus Helga Haftendorn, Germany
- Professor Martin J. Kropff, The Netherlands
- Professor Lennart Hjalmarsson, Sweden

25 March 2010

Danish Agency for Science Technology and Innovation

Bredgade 40
DK-1260 Copenhagen
Phone +45 3544 6200
Fax +45 3544 6201
E-mail fi@fi.dk
Website www.fi.dk
CVR-no. 1991 8440

Responsible

Trine Bendix Knudsen and
Katja Koch
Phone +45 7226 5612
Fax +45 3544 6201
E-mail tbk@fi.dk

Ref. 09-054886
Doc id. 1288019
Page 1/6

With this composition the panel covered all the scientific main fields with an emphasis on those areas where the majority of proposals were expected.

Evaluation criteria

The UNIK expert panel reviewed the proposals on the basis of peer reviews of each proposal. Peers as well as the panel assessed the proposals on the basis of 6 evaluation criteria which appeared from the call:

1. A UNIK is a dynamic and closely co-ordinated research framework involving interrelated research activities or sub-themes in a prospective field of research. It can deliver excellent research. It will promote synergy amongst the activities and consolidate a focal point for research at the University.
2. The research themes of the UNIK are given high priority by the University. The University can demonstrate potential synergy with other major research and strategic initiatives at the University.
3. The research themes are based on sound hypotheses and visions. Elements of the proposed research framework have already been established. The research groups involved have demonstrated excellence and originality in their previous research activities. Thus, a UNIK will result in competitive advantage in the research area.
4. A UNIK has a strong international orientation and the capacity to play a decisive role in partnership with international leaders in the relevant field of research.
5. A UNIK is ambitious and able to make probable a scientific breakthrough and/or significant scientific progress.
6. A UNIK contains an element of recruitment and training of both national and international researchers who are at an early stage of their careers.

The first and second criteria are the actual definitions of a UNIK for which reason a proposal, as a minimum, needs to meet these requirements. Furthermore, the proposals were assessed in regard to the subsequent criteria. The order of the criteria indicates a prioritisation so that the third criterion scales higher than the fourth criterion and so forth.

The time schedule of UNIK

In total, 28 proposals from the 8 different universities in Denmark were submitted. 4 proposals obtained funding.

The UNIK expert panel appointed 4 reviewers for each proposal after consultation of universities in April and May 2008. The proposals were reviewed in June and July and the assessments were sent to consultations of the universities in August and September 2008. The UNIK expert panel evaluated and prioritised the proposals at a meeting in November and the assessments were sent to consultation of the universities in December 2008.

The essential here are the 3 consultations and the aim to have 4 reviewers for each proposal.

Peer reviews

The Danish National Research Foundation (DNRF) was the operator of the peer review process on behalf of the Danish Agency for Science, Technology and INnovation (DASTI). In that capacity DNRF contacted international expert who were set to review the incoming UNIK proposals. 463 potential reviewers were contacted where 201 of them accepted (43,4 percent), 187 declined and 75 of them never answered. Among those who declined, 158 said it was due to lack of time, 22 said it was because their competences did not fit the proposals, 3 because they were not anonymous, 1 because the institution would not allow it and 3 because of illness.

First consultation of the universities

After the UNIK panel has pointed out 4 external international reviewers for each proposal the first consultation of the universities was made. The secretariat received comments from applicants behind 16 of the proposals. 10 of the comments were about conflict of interest while the rest were mainly about lack of professional coverage or too low research merits among the proposed reviewers.

Danish Agency for Science
Technology and Innovation

Page 3/6

Second consultation of the universities

When all the assessments for each university were made by the appointed international reviewers, the second consultation of the universities was made. Here the assessments of the peer reviewers were sent to the universities for comment. The applicants had comments in 24 cases out of the 28 reviewed proposals. The assessments, the comments for the assessments and the proposal itself composed the material for the decision of the UNIK expert panel. The members of the panel were asked ahead of the meeting to mark each proposal A, B or C and to review the quality of the assessment made by the international experts.

At the meeting the proposals were classified in 5 categories (1-5) where the lowest category (1) contained those proposals which did not meet the two basic criteria and the highest category (5) contained the most excellent proposals.

Third consultation of the universities

The assessments from the UNIK expert panel and comprehensive reasons for each assessment were sent to the universities for comments. The applicants had comments in 16 cases out of the 28 proposals but only 12 of the comments were about the actual assessment. DASTI considered that the comments did not give rise to a renewed assessment by the UNIK expert panel.

The minister decided to give complete funding for the 4 proposals in the best category. This means that the 4 most excellent proposals got fully financed.

The 4 project are the following:

- “The Catalysis discovery initiative: Sustainable energy solution” at the Technical University of Denmark.
- “MINDLab” at Aarhus University
- “UNIK Synthetic Biology” at University of Copenhagen
- “Food, Fitness and Pharma for Health and Disease” at University of Copenhagen

2.2 Experiences with the round of UNIK-proposals

The UNIK expert panel found that the initiative is an interesting new financial instrument that focuses on the research strategy and overall prioritisation of the universities and goes further than the individual based research proposal. On the other hand, the panel found that with this type of instrument for financing, there is a risk that natural science and medical science are being favoured at the expense of social science and humanities. The possible bias would stem from the criteria which focus on larger grants while research projects within humanities and social science typically are smaller than research projects within natural and medical science.

The initiative has also been criticised by researchers and others for not encouraging cooperation between universities. The criticism is being justified with an argument about how research environments can exist between several universities as well as within one single university. In fact institutional cooperation was possible, although not encouraged. A cross institutional cooperation has not been a purpose of this initiative. On the contrary, such a purpose can be difficult to unite with the principle about how the universities are supposed to compete for the funds.

In regard to the assessment process the expert panel had the following comments:

- The two first criteria were the most important but they were also very confusing and contained several different issues at the same time.
- Four reviewers per proposal seems appropriate. But in future calls the aim and definition of a UNIK should be made more evident so that it is obvious for the international reviewers how a UNIK differs from an ordinary research centre.

Furthermore, the UNIK expert panel made some considerations about the open and highly transparent assessment process. The panel considered it positive that the process had been transparent but at the same time the panel found that the reviewers had a tendency to be cautious in their criticism because their names were known by the applicants. Therefore it could sometimes be difficult for the panel to interpret the assessment. The problem could be dealt with by asking the reviewers to explicitly point out strengths and weaknesses of each proposal.

The Danish National Research Foundation came up with the following recommendations for improvements:

- Shorter and more precisely formulated criteria
- Request a concrete report as a part of the application about the interplay between the proposed UNIK and the research strategy of the university.
- More specific instructions for the international reviewers.

The Danish Agency for Science, Technology and Innovation found that in addition to shorter and more precisely formulated criteria it should also be required that both the external reviewers as well as the expert panel are considering each criteria in a concrete and specific manner. Furthermore, the third consultation with the universities should be skipped since it is unnecessary given that the applicants have already been consulted about the individual

assessment by the international reviewers. Another solution could be to involve the panel again and make them decide whether the third consultation opens up for changing the assessments. But the consultations of the universities should not become a protracted dialogue about the assessment.

3 International tendencies within research financing

In these years we observe more and more countries that launch initiatives which in general can be described as competitive funding for elitist, strategic research programs at universities. In all these initiatives the universities are competing against one another to obtain funding with the aim for each university to develop towards elite level.

Today there is an international tendency that many countries are testing different kinds of public financing for research where funds are being distributed through competition between the institutions. This kind of financing differs from the 2 traditional ways: block funding for institution and competitive funding for individual researchers (or research teams). In Denmark we have tested different kinds: The UNIK initiative which focuses on research activity and the Research Infrastructure program.

In countries like Sweden, Germany, Spain, France, Ireland, Canada, Malaysia, Japan, Austria and South Korea there have already been implemented initiatives or there have been initiatives on the drawing board which are all about competition between universities about funds.

After having tested various kinds of models, several countries are now in a situation where their models are to be further developed or they need to make a decision about whether to continue the initiative or not. Furthermore, other countries are interested in introducing new forms of research financing. Thus there is a need for mapping out the different initiatives as well as exchange of experiences between the countries.

3.1 Perspectives for Denmark

At this time Denmark has build up valuable experiences with new forms of research financing specified in the UNIK initiative, the Infrastructure program and block funding for universities distributed according to a new output-based model. This means that other countries can learn from the Danish experiences and that there is a good foundation to build on in relation to a further potential development of existing or new initiatives.

It necessitate major resources to develop a completely new model for research financing, as for example UNIK and at the same time it requires a certain degree of adaptation among the universities and researchers as well as reviewers and public authorities.

Considering the fact that the approach of other countries is moving towards a system with funds in competition between universities and considering the major resources invested in developing and building up experience with the UNIK model, it seems worth considering future models for distributing funding for research in Denmark.

