



**Report**

# **Research-based public-sector services**

*From research and public-sector consultancy by sector research institutes to sector related research and research-based public-sector consultancy at the universities in Denmark*



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## **Preface**

Denmark has a long tradition for administrative and political decision-making based on science through research-related consultancy carried out by research and academic institutions. This consultancy is done by active researchers providing knowledge and substantiated data. This constitutes a central part of the services to the public sector which has been anchored in the universities since the mergers in 2007 between several government research institutes and universities.

Research is the main task and incentive for the universities. Research has thus always been the foundation for the teaching and research creating innovation in the business sectors and supporting Danish competitive strength in a globalised world. The research and investigations at the universities should therefore constitute a foundation for the public-sector services, provided that the universities are able to supply public-service consultancy as a basis for public decision-making.

With this report, The Forum for Research-Based Public-Sector Service under the organization Universities Denmark, would like to direct attention to the social value of the public-sector services and contribute to the general understanding of the importance of these new tasks for the universities.

The report establishes common concepts and terminology for public services carried out by the universities for the government. Furthermore it presents a series of recommendations for an appropriate inclusion of such government services within the total portfolio of activities of the universities.

The report is thus meant to be an essential contribution to the achievement of the highest possible synergic effects of the inclusion of public-sector services into the others activities of the universities.

Today the mergers of the universities are in place, and we are going to benefit from the advantages of these.

I hope you will enjoy the reading.

Lars Pallesen  
Chairman, Forum for Research-Based Public-Sector Services  
Rector, Technical University of Denmark



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## 1. Summary

In Denmark, there is a long tradition for research and specialist knowledge based underpinning of administrative practice and policy. This strategic research was previously primarily located in sector research institutes. In connection with the government's globalisation strategy, from 2006 large parts of sector-research were integrated into the universities. The objective was partly to utilise strategic sector research in higher education, partly to ensure a continuation of a professional public-sector service through anchoring it in university research and thereby underpinning Denmark's competitive capacity in a globalised world.

Sector research is integrated into the universities as *research-based public-sector services* through contracts between ministries and universities. The research-based public-sector service consists of *sector related research* and *research-based public-sector consultancy etc.* In addition, there are tasks such as communication, business development etc.

In a democracy based on knowledge it is important that current, reliable and relevant information is available for the decision-making processes in public administration, government, Parliament and the world of business. The universities are responsible for establishing and compiling new knowledge, and they have a basic duty to contribute to bringing knowledge into action and applying it. This is already happening since the universities publish their research results, educate new generations to the highest standard, communicate knowledge to a wider public and let researchers participate as experts in politically established committees and commissions. The integration of a research-based public-sector service into the universities should be seen as an extension of these activities. These 'new' tasks are just as important for universities as traditional research and teaching and they contribute to the fulfilment of the universities' collective responsibility to benefit society.

The aim of this report is partly to advance insight into research-based public-sector services, including the framework of conditions for the universities established by the political decision makers, authorities, researchers and managers, and partly to come up with recommendations as to how the new challenges can be dealt with.

All core tasks at a university are research-based and universities must ensure that the new tasks are integrated into the total task portfolio with the greatest possible synergic effect. The fact that the advice to a public sector is research-based means that it is based on the university conducting research within the relevant subject area. There is a clear parallel to research-based teaching: sector based research creates the necessary basis for highly professional advice to public-sector services. To be able to provide high quality advice to public-sector services, universities should possess academic competence in the area and must be able to meet public-sector services' expectations of relevance, format and punctuality.

Public-sector services and universities should build up a common understanding of the basic principles for the management of research-based public-sector services. It is essential for the credibility and objectivity of advice given that it is based on research, and sector related research should be carried out with the same integrity and has to be judged according to the same criteria of quality as all other research.



All public research and public-sector consultancy etc. must be freely accessible, and universities have both the right and the duty to make their results public. The Researchers' freedom of expression and freedom of research are basic principles, which universities must protect. This also applies to research-based public-sector consultancy.

There has to be a clear distinction between a professional assessment of the research and advice, and the later decision making process and the management of the administrative task which is assigned to the politicians and administrations. To ensure that this 'arm's length principle' will not become an obstacle to a well functioning collaborative working arrangement for public-sector consultancy, a mutual recognition of each others' world is required:

- Respect and understanding for the need of Parliament, government and the civil service for a speedy, precise contribution of a high quality with regards to often very complex and complicated problems, and the need for continuity in relation to both research areas essential to society and previous consultancy within this area.
- Respect and understanding for the university's and the individual researcher's target for research quality, publications and high professional integrity.

These two perspectives will meet in a dialogue, but must never merge. There must never be any doubt about the contributing researcher's lack of bias and academic integrity. Thus both researchers and authorities need a great deal of openness and transparency concerning the universities' advice in relationship to political decision making processes and public-sector services' management

The grants for the research-based public-sector services are primarily tied to agreements between the ministries and the universities. The size of the agreed grant and further developments must correspond to the long-term needs that the sector and the public authority have for research-based public-sector services. Sometimes the grant agreements are contained within the relevant ministries' finance law paragraphs, in other cases the funding is transferred to the universities. This leads to frameworks of conditions that are varying within the individual areas in the management of assignments within the research-based public-sector services. Generally, the agreed grants ought to be organised so they meet both the requisitioning authorities' needs and the universities' interest in the management of assignments.

It is essential that assignments are fully financed, including the costs of the necessary infrastructure. To ensure the research and the development of competence, at least half of the grant must be used for sector related research, and in many cases more than a half of the grants, if the sector related research is to support business development or the building up of capacity in third world countries.

The specialist ministries' tendering processes for research-based public-sector services must be developed so that they are transparent and fair, and the possibility of obtaining an impartial review of the consultancy's use of the underlying research in connection with the delivery of large advisory assignments should be established.



*The recommendations of the Danish universities is*

- *research-based public-sector services is seen as a task for universities in line with other tasks such as research-based teaching and research-based communication and innovation, and indicators have to be developed for research-based public-sector consultancy;*
- *sector related research should be assessed in accordance with the usual quality criteria employed for all good research;*
- *universities should have insight into and an understanding of political and administrative decision-making processes, and should develop quality control systems for advice to the public-sector services, and the results should be publicly accessible and should be judged by peer specialists;*
- *tasks within the research-based public-sector services should be fully financed and normally should be determined by a grant agreement, which ensures competence building and the necessary infrastructure. Therefore at least half the grant - and often more - is to be set aside for sector related research within the relevant ministry's area of competence, while the remainder should be reserved for research-based public-sector consultancy etc, in areas which have either been agreed on in advance for a number of years or are being agreed on currently;*
- *sector related research - seen in relation to the needs of the various sectors - should have a share of the total growth in research;*
- *research-based public-sector consultancy etc should – in line with research-based teaching - give credit for further employment in the university sector;*
- *competitive tendering for research-based public-sector services should take place fairly, transparently and on equal terms. The Strategic Research Council or a similar independent authority should be involved to evaluate the quality of the research.*



## **2. Purpose of the report**

The Forum for Research-Based Public-Sector Services, set up by the Rectors' Conference of Universities Denmark, is responsible for the report.

The purpose is to promote insight into research-based public-sector services at the universities amongst political decision makers, public-sector services, researchers and managers etc., and to facilitate an efficient handling in a university context of the possibilities and the challenges that the merger has brought with it. Another purpose is to contribute information in connection with the 2009 university evaluation.

We seek to meet these aims through a series of thematic sections.

The historical development of government research and how the national research institutes were formerly organized, for example the closeness to the decision makers and to the authorities, up to the present at the universities, is described shortly below.

The placement of the tasks within the university creates challenges and involves, for example, the need for guidelines concerning the framework conditions for universities' management of research-based public-sector services. The report provides a series of recommendations for the ministries and university managers.

The report contains neither an evaluation of nor an account of how the amalgamation of the universities has gone up until now.



### **3. Background**

The introduction gives a short definition of the concepts, which is used in the following account (for remaining definitions, cf. appendix A)

#### **3.1 Definition of research-based public-sector services**

Research-based public-sector services consist partly of sector related research, partly of specialist consultancy etc., based on this research. Thematically both activities are aimed at society-related problems. Sector related research is limited to a particular problem field (often described as strategic research), but as in free research, it is driven by the researchers' own ideas and choice of method.

The term sector related research is used for the research part of the research-based public-sector services.

Research-based public-sector consultancy etc. comprises research-based activities such as expert advice in a traditional sense (reports, memoranda, participation in commissioned specialist work and subject-related committees etc.), and a long series of professional tasks, such as monitoring, laboratory analysis, risk analysis, data activities etc. (cf. appendix B)

#### **3.2. From government research to research-based public-sector services**

In Denmark, there is a long tradition of trying to underpin politics, administration and sector developments with support from research and specialist knowledge. For more than a hundred years, research institutions have existed within the areas of agriculture, fishing, meteorology and geology. In the universities, within the areas of forensic medicine and technical science for example, researchers provide significant research-based consultancy and monitoring, and within the social science area - for example law - the researchers contribute to reports with expert knowledge, just as they take part in commission work etc. for the political-administrative system.

In the second half of the twentieth century, the authorities - and in particular the individual ministries - were faced with new and urgent tasks in the light of the development of a still more complex society. The universities, due to the way they were organized at the time, could not solve these tasks immediately and this led to the establishing of academic institutions under the ministries - often small and specialised units. The ministerial directives had the effect that the main emphasis was on solving the here and now- tasks in preference to a more long-term compilation of knowledge, and this could give rise to doubt about the independence from political-administrative interests. The need for long-term research and for distance from the political decision making process became apparent about 1990 and led to the establishment of large sector research institutes with responsibility for research, specialised consultancy and monitoring. With the 1995 Act on National Research Institutes, rules were introduced for independent boards for the sector research institutes; this formally secures independency from the ministries.

The integration of the government research into the universities was part of the government's globalisation strategy from 2006. A few institutes had already been merged with universities in 2006, and the large-scale amalgamation of universities and national research institutes became a reality by January, 2007. The aims of the amalgamations were 'more education, greater international impact within the area of re-



search, more innovation and co-operation with the business world, attracting more EU sources, along with a continuous effective public-sector service'. At the same time as the adoption of the amalgamations, it was decided to implement an evaluation of the universities in the course of 2009, which - amongst other things - would look at the fulfilment of the targets of the amalgamations.

After the amalgamations, co-operation between the universities and the specific ministries was to be regulated via a series of agreements on the management of research-based public-sector services (cf. appendix C). Research-based public-sector services at a university are formally based in the Act on Universities §2 and §33. (cf. appendix E).

### **3.3 Society's requirements**

Research-based public-sector services arise from the need for safe and impartial information as a basis for society-related decisions. When research is involved in expert consultancy to Parliament, ministries, local authorities and the business world, it is to ensure that major and complex decisions, often with significant socio-economic and social consequences, can be made on informed basis using all the latest scientific knowledge and research results. Furthermore, research-based public-sector consultancy, constitutes a means of creating new ways of thinking and innovation in public administration and sector development. Add to the fact that Denmark's influence in international context, including the EU, extensively depends on the scientifically based underpinning of opinions and attitudes.

Society's need for highly professional consultancy and monitoring will not decrease in the time to come, if Denmark is to play the part of an equal nation in an increasingly globalised world. This does not apply merely to the public sector's policies, administration and international efforts, but also to the business-targeted sector development, where you find an increasing need for research, consultancy and monitoring with a view to support the development and observance of complex rules and demands concerning, for example, climate, environmental regulation, food and energy consumption.

There is a clear development towards a unified professional approach in connection with the public-sector services' requirement for research-based public-sector consultancy etc. The growing complexity of society requires the professional consultancy and monitoring to include a wide range of subject areas, if it is to constitute an informed platform for decision making. The universities have the best qualifications to meet these challenges.



#### **4. Possibilities and challenges for research-based public-sector services**

The merger of the government institutes with the universities means facing new possibilities and challenges for the area.

##### **4.1 Synergy effects**

It is possible to obtain synergy effects within the universities after the merger, facilitating the development and strengthening of research-based public-sector services, and at the same time adding new advantages to the universities' other duties in research, teaching, dissemination of knowledge and innovation.

The research part of the research-based public-sector services complements the remaining and more discipline-orientated research at the universities by including problem-orientated, sector related research, often in border areas between disciplines. The width of the universities' research opens up for new possibilities for accommodating demands for a comprehensive public-sector consultancy and monitoring. Special cross-disciplinary challenges, for example in the area of climate studies, can be better supported in this manner. At the same time is created a natural opening for new research areas in research-based consultancy etc., and thereby strengthening the knowledge foundation for the administration in areas, which have not traditionally been in contact with the university sector (cf. cases in appendix B).

Research-based public-sector services can inspire new research, in the same way as data series and statistics can be valuable and necessary preconditions for research.

Research-based public-sector services have the potential to provide new aspects for internationalisation of the universities. Research-based public-sector services presuppose a well-developed international professional network in order to support the regulation of the development of society, which increasingly takes place across the countries' borders. This is true for environmental, agricultural and fishing policies, which to a great extent are laid down and regulated within the framework of the EU - or in international conventions. Moreover, national research institutes have experience in taking part in the international strategic programme-research, for example in the EU, which can be of benefit for other university research.

In the area of education, experience with applying research to specific social problems may provide new educational possibilities. Data and information from the administration and business can be included in order to actualise the teaching and to provide social relevance in teaching. In many areas, the research-based public-sector services are also responsible for - and have experience with - innovation and co-operation with the business-world, which can be utilised more broadly at the universities.

##### **4.2 The role of the universities**

The merger has a positive effect on the universities' total task-portfolio and for society in general. The key tasks of universities are all research-based and can be briefly described as follows:

- ◆ *Research*: Production of new knowledge, which is documented, is the basic task; in addition to this
  - ◆ *Education*: New and existing knowledge is to be converted into competence in the students.



- ◆ *Public-sector consultancy*: New and existing knowledge is to be put together in a professional decision-basis for use by authorities, politicians and other decision makers.
- ◆ *Dissemination of knowledge and innovation*: The transfer of new and existing knowledge to the business world and society in general.

On behalf of society, the universities have a major responsibility to create and collect knowledge, and they have a fundamental duty to participate in bringing new knowledge into play and application. This is already happening since the universities publish their research results and educate new generations to the highest academic level. University researchers also appear to a great extent as experts in committee and commissions, which are established by the political-administrative system. Thus, managing research-based public-sector consultancy etc. is not a new phenomenon.

Public-sector services at a university have to be research-based. This means that one or more departments at the university carry out research within the relevant subject area and are capable of compiling and understand the latest available knowledge and apply it to the relevant public sector's problems. This has a parallel in research-based teaching: Research is necessary, but is not identical with the teaching activity. In the same manner, sector related research is necessary, but not identical with public-sector consultancy etc. The situation is also reverse in a number of cases: Public-sector consultancy and monitoring make a valuable contribution to research. For example the collection of monitoring material, data series (regarding environment and diseases), analysis (for example in forensic medicine) or statistics are often a valuable and necessary background for research.

The precondition for supplying highly professional public-sector consultancy is that universities:

- have academic competence in the area and that this is documented in the usual manner (international and national publications, PhD. grades, conferences etc),
- are organised in an appropriate manner and possesses competence, preparedness and experience, which ensures that the accounts which are delivered to the public-sector, are of assured quality, based on the most recent knowledge and can be delivered within the agreed time-frame,
- have insight into and understanding of political and administrative decision-making processes, including the insight how to communicate knowledge in such a way that it is formulated in an understandable manner for the public sector (and in most cases also for an informed public audience), and
- ensure that there is independence between the commissioner of the task and the researchers responsible for the account, so that there is no doubt about the credibility of the account.

Universities should not make or administer political decisions, but contribute to policy being carried out and decisions being made against a background of the best possible bases for decision.

Universities have to consider whether the existing structure of incentives sufficiently supports the work involving research-based public-sector services.



### 4.3 Financing

The financing of research-based public-sector services is divided up into long term agreements/contracts ('assignment funding' covers research and advice etc.) and isolated project funding. Research-based public-sector service should be fully financed, which means including indirect costs (infrastructure, overheads etc.) in connection with all activities. This is a general precondition for the universities' management of research-based public-sector services.

#### *A. Long term agreements/contracts*

The agreements on funding run over a number of years, and - to some extent - contracts about which tasks have to be carried out can be entered, and the funding can be seen in the Finance Bill (cf. appendices C and D)

#### *B. Isolated project funding*

Project funding is defined as the funding of tasks, which either a minister or a public authority wants undertaken, and can be tendered in competition as a project or similar task.

The size and development of the agreed funding for a task should correspond to the long-term needs the sector and public authority have for the research-based public-sector services. In some cases, the agreed funding is placed under the relevant ministry's finance law paragraphs; in other cases the funding is transferred to the universities. This results in framework conditions, which vary within the areas, which deal with research-based public-sector services, for example in connection with competitive tendering. The various financial models have advantages and disadvantages, which is why there is no full agreement amongst the universities as to which distribution is the most suitable. Generally, the agreed funding for assignments ought to be organised in such a way that the grants meet the commissioning authority's needs as well as supporting the universities' interests in managing the tasks involved.

Regardless of where the funding is placed, the following preconditions ought to be fulfilled:

- There has to be a regular dialogue with the relevant ministries about the assignment of such a character that the research develops in agreement with the sector's needs.
- Consultancy assignments should be defined and costing have to be made currently. In the case of competitive tendering this should happen on fair terms.
- Universities should provide documentation to show that research resources are being used in areas, which are relevant to the individual ministry.

Seen from the universities' point of view, research-based public-sector service is a societal task, parallel to research-based education, which ought to have correspondingly financial terms.

It is furthermore the universities' perception that a minimum of half - typically more than half - of the agreed funding should be used for sector related research within areas of interest to the ministry, while the remaining second part should go to consultancy assignments etc., which have either been agreed upon beforehand or which are currently being dealt with. In connection with this, the necessary investment in the



underlying infrastructure should be taken into account. How big a part of the funding that is reserved for research assignments depends among other things on the extent to which the funding is to be used to support research-based business development or capacity building related to developing countries (cf. appendix B).

#### **4.4. Competitive tendering**

The relevant ministry can choose to put the above-mentioned long-term agreed assignments funding out for competitive tender. The Danish universities recognise that research-based public-sector services can be put out to tender in open competition amongst qualified contractors as a means to optimise the relationship between quality and price. Experience with competitive tendering in the area is extremely limited and it is a question of finding the university, a consortium of universities and/or national research institutions, which would be best suited to build up a long-term competence in the relevant area and be able to carry out the required public-sector consultancy.

It can also be the case that the primary purpose for the public-sector is the demand for consultancy or data collection within a particular field. In such a case the assignment ought to be put out for tender as a combination of research and consultancy. In order to win this competition, the university should be able to document that it has the relevant research and consultancy competence, whereas the use of the research funding should be documented in the same way as research money in general, i.e. through publications, PhD. grades etc. It can also be a case of research projects of interest to a ministry and to which there are no public-sector consultancy tasks attached. In both cases, the task that has been put out for tender should be dealt with in the usual manner, i.e. involving the Strategic Research Council or similar independent organisations.

To avoid competitive tendering becoming counterproductive, the involved ministry ought to take into account a series of conditions that are of importance to the future quality of the work carried out. Together with other specialised ministries, the Ministry for Science, Technology and Innovation has drawn up a ‘Memorandum on agreements between universities and ministries concerning public-sector services’ with an accompanying appendix on competitive tendering, incorporeal rights and publication. 12 conditions are outlined, which all are of crucial importance for the success of or failure of a competitive bid<sup>1</sup>. Among the conditions are included the consideration of development and maintenance of a research environment of a high international standard.

It is the Danish universities’ perception that it is a central premise that competitive bids are linked directly to the maintenance of a research-based professional environment, and it ought to be stressed that continuity within research environment is vital for the quality of public-sector consultancy. Competitive tendering is a possibility, but only if it takes place on a transparent basis and with consideration to the above mentioned connection between consultancy and research.

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<sup>1</sup> Danish University and Property Agency’s memorandum of June, 18 2008 on competitive tendering for research-based public-sector services.



*The position of the Danish universities is*

- *research-based public-sector services should be seen as a task for the universities in line with other tasks such as research-based education and research-based dissemination of knowledge and innovation, and indicators for the research-based public-sector consultancy should be developed;*
- *research-based public-sector consultancy should - in line with research-based teaching - give credit for further employment in the university sector;*
- *universities have the duty to ensure that research and its results are made available to politicians, public-sector services and the world of business for decision making processes;*
- *universities should commit themselves - in dialogue with relevant ministries - to continuously build up, develop and document research-related competencies and results in the area;*
- *sector related research - seen in relation to the needs of the various sectors - should have a share of the total growth in research;*
- *tasks within the research-based public-sector services should be fully financed and normally should be determined by a grant agreement, which ensures competence building and the necessary infrastructure. Therefore at least half the grant - and often more - is to be set aside for sector related research within the relevant ministry's area of competence, while the remainder should be reserved for research-based public-sector consultancy, in areas which has either been agreed on in advance for a number of years or are being agreed on currently;*
- *research-based public-sector services may be tendered for open competition. This presupposes a process, which takes its starting point in a transparent basis with fair and equal conditions and with consideration to the maintenance of a research environment of a high international standard;*
- *the individual, relevant ministry - as a part of a decision to put tasks out for competitive tendering - ought to explain its assessment of the basic conditions for success or failure of competitive tendering. Such an explanation is an extension of the administrative law's provisions and will be of great value if subsequently doubts are raised about the fairness of and the conditions for competitive tendering;*
- *The Strategic Research Council or a correspondingly independent institution should be involved in evaluating research quality in connection with competitive tendering and research-based assignments.*



## **5. Principles for research-based public-sector services within universities**

It is important that the public-sector and universities have a common understanding of the basic principles of the management of research-based public-sector services. The public-sector that requires research-based public-sector services must respect the links between research and consultancy. The public-sector must also accept that the consultancy, which is provided by the universities, is different from consultancy from private companies. Every kind of consultancy has its advantages, but if the public-sector requires consultancy of a high academic standard, the universities' research-based public-sector services are hard to ignore.

The Danish universities can agree to the professional and organisational aims of research-based public-sector service, as it is described in the existing set of rules and principles based on current laws and guidelines<sup>2</sup>. The basic principles are described in the following.

### **5.1 Quality and integrity**

Sector related research should be judged according to the usual criteria for quality of good research. This includes an open discussion between international experts to ensure the quality of the individual researcher's production. The results of the sector related research should be published and discussed in the same way as the universities' other research.

The results of research-based public-sector consultancy etc. should be published, and the universities must develop quality control systems, which ensure peer-group assessment of reports etc. that are part of the public-sector consultancy. In the matter of urgency the latter method is however not possible. A procedure to ensure the integrity of the research is that the researchers concerned with public-sector consultancy are mentioned by name in the reports etc. The connection between research and consultancy is an important parameter of quality<sup>3</sup>.

### **5.2 Transparency**

All publicly financed research should be freely accessible. The research results are the researchers' responsibility, and the university and researchers have a right and duty to publish them. These principles are stated in the act of university, just as they were included in the act on sector research. The Ministry for Science, Technology and Innovation has emphasised that all results with a background in research-based public-sector services are comprised by the same principles, just as the university alone has the right and duty to show the customary academic considerations in relationship to publication<sup>4</sup>.

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<sup>2</sup> See in particular: The act of university, the act on administration, the act on publicity, the act on retail and the copyright law, four memoranda from the Danish University and Property Agency (memorandum of December, 18 2006 on agreements between universities and ministries on public-sector services, memorandum of June, 18 2008 on competitive tendering in relationship to research-based public-sector services, memorandum of January, 29 2008 on incorporeal rights in relationship to research-based public-sector services, memorandum of January, 29 2008 on publication in relationship to research-based public-sector services) along with the Ministry of Justice's directive on freedom of expression for employees in public services.

<sup>3</sup> Danish University and Property Agency's memorandum of June, 18 2008 on competitive tendering of research-based public-sector services

<sup>4</sup> Danish University and Property Agency's memorandum of June, 29 2008 on publication in connection with research-based public-sector services



There can be situations where researchers ought to coordinate their timing for publication with the commissioning public sector. Research-based public-sector consultancy etc. can in particular cases contain tasks where the date for the publication of the results is important in the interest of the execution of authority or the political process. Correspondingly, there are situations where universities want to delay the publication of, for example, a draft report until the results are published in an academic journal. Agreements can be made, but these must not delay publication of the research results unnecessarily out of general consideration to political or administrative needs.

Research-based public-sector services often involve tasks, which necessarily must be agreed in dialogue between the public-sector and the university. To avoid any doubts about the research results and the consultancy, it is essential to ensure transparency concerning the tasks. Together with the specialist ministries, the universities should develop the process further to guarantee that the invitation to tender and the public-sector consultancy are transparent and open to the public. It is in the public interest to ensure the professional credibility and quality.

### **5.3 Freedom of expression and freedom of research**

Researchers employed in the public-sector do not only have freedom of expression, but they also have a duty to contribute to the public debate with professional points of view. Universities are directly instructed to encourage their employees to do so, and public-sectors that use research-based public-sector consultancy must accept that researchers from the same university may have differing, even mutually contradictory views, which are all scientifically founded.

Public-sectors that use research-based public-sector consultancy etc., must expect that the results have been subjected to an internal and perhaps also external review. The public-sector must have the possibility of demanding consensus, and the researchers involved have to report on how far the scientific consensus reaches, and where it stops.

Freedom of research - the freedom to choose subjects - is in the act of university limited to research within the university's research-strategic framework. The actual limits for freedom of choosing research subjects are governed by the possibilities of the university to fund the research.

Universities should safeguard the individual academic colleague's research freedom within the framework of the employee's conditions of employment. This applies to all academic employees, including researchers employed to undertake research-based public-sector services.

Employees can - to a reasonable extent - be instructed to undertake consultancy tasks - as well as teaching tasks - in accordance with the employee's terms of employment. This takes place after mutual agreement with the university management.

By entering the agreement on research-based public-sector services, the university undertakes the research commitments that are determined by the finance act, which means that academic employees can be instructed to carry out certain research tasks.



This does not exclusively apply to employees at the special ‘professional units’, according to the Act on Universities.

In very exceptional cases, all academic employees can be instructed to carry out certain research tasks that the university has been instructed to undertake in accordance with the University Act §33, part 2.

*The position of the Danish universities is*

- *research-based public-sector services should be carried out with the same integrity as the other tasks of the university;*
- *sector related research results should be judged by the same quality criteria as all other research;*
- *the results of public-sector consultancy etc. should be made publicly available, and also available for assessment by colleagues from the same area;*
- *universities should develop quality control systems for research-based public-sector consultancy;*
- *the researchers’ freedom of expression and freedom of research are basic principles which the universities should safeguard, also in connection with the management of research-based public-sector services;*
- *in special cases there can be a need for the public-sector and the university to coordinate the date for the publication of consultancy result.*



## Appendix A

### Definitions

#### **Research-based public-sector services**

**Short definition:** Research-based public-sector services include both the sector related research and the direct problem solving for public-sector services (consultancy etc.)

**Clarification:** The term 'research-based public-service services' is used in the political-administrative system. On the web site for the Ministry for Science and Innovation it is stated: 'Research-based public-sector services are the university's services to the ministries in accordance with the agreement between the individual university and the ministry. The universities solve research-based stand-by service and consultancy tasks, as well as acute assistance to the public-sector. The research behind the public-sector services is central to the quality and efficiency of university's problem solving for the public-sector'.

[www.ubst.dk/institutioner-og-okonomi/forskingsbaseret-myndighedsbetjening](http://www.ubst.dk/institutioner-og-okonomi/forskingsbaseret-myndighedsbetjening)

The concept 'research-based public-sector services' covers the type of tasks, which were transferred from the former national research institutes to the universities i.e., cf. Act No 326 of 5/5 2004 on Government Institutions: '*§ 2. A government institute engages in government research up to the highest international standards with the aim of 1) providing consultancy within the institution's core areas, 2) carrying out public-sector tasks, 3) carrying out development work with a clear social aim, 4) facilitating, including the management of the transfer of the universities' own science and technology research to the relevant public and private interested parties and 5) carrying out operational tasks in connection with the assignments mentioned above*'.

#### **Sector related research**

Sector related research is a part of the research-based public-sector service and comprises the research that constitutes the basis for the management of the public-sector consultancy and monitoring, i.e. research within the subject areas, which are established in the agreement.



### **Research-based public-sector consultancy**

**Short definition:** Research-based consultancy and monitoring make up a subset of the research-based public sector services and comprise the tasks, which are carried out at the direct request of the public-sector.

**Clarification:** The research-based consultancy and monitoring services cover a broad spectrum of services. They deal with consultancy tasks of a short or medium term character (urgent ad hoc tasks, specialist advice in connection with work involving the drafting of laws, as well as various reports and evaluations). It also includes on-going consultancy of long-term or more permanent character, including monitoring, data or analysis tasks, establishing fertiliser-standards, environmental condition assessments, risk evaluation, analytic or development tasks, participation in committees, expert groups and international work etc.

### **Public-sector stand-by services**

**Short definition:** On the basis of its sector related research the university has a duty to maintain a specialised stand-by service, which - among other things – means including relevant, internationally accessible knowledge, the necessary equipment and infrastructure – within the agreement’s specialist subject areas, so that the university is in a position to deliver advice to the public-sector on request.

**Clarification:** The public-sector stand-by services involve the presence of the relevant specialists and infrastructures etc. that the university has at its disposal at the time for solving tasks within precisely those areas that are established in the agreement with ministry. Constant accessibility, combined with a readiness to act, which can be activated in acute and/or by current ‘security problems’ with a political focus. The responsibility of the minister can be manifested immediately and clearly.

### **‘The arm’s length’ principle**

**Short definition:** A clear separation of the specialist research assessment from the subsequent decision-making and the handling of the matter in question by politicians and the public-sector.

**Clarification:** The management of the ‘arms’ length principle’ does not mean that contact and dialogue between the public authority and university is precluded. On the contrary, the agreements encourage a direct and open dialogue. Often, the researchers can see approaching challenges before politicians and publics do, and dialogue contributes to the fact that the decision-makers can deal with a certain case with ‘due care’.



## Appendix B

### Types of tasks included in research-based public-sector services

#### **Sector related research**

Research within the relevant problem areas or sectors. Research normally crosses between the universities' traditional research disciplines.

#### **Research-based public-sector consultancy**

Specialist consultancy based on new (and existing) research, regarding situations where the public sector requires a professional input and 'sparring', for example:

- Current assignments: Reports, analysis, evaluations, risk assessments, prognosis, solution scenarios and consequences, which often, but not necessarily, end with a report
- Tasks of ad hoc character: Specialist contributions to, for example, a response to a matter submitted to a ministry, short reports for the preparation of law making both nationally and for the EU, contributions to responses to parliamentary and joint council questions, participation in national and international specialist committees and commissions, contributions to enquiries from a business or interest group organisations and to responses to articles in the press.

#### **Cases**

- Annual updating of fertiliser standards
- Evaluation of plans for water-environment
- Classification of chemical substances and products, including the introduction of a new globalised, harmonised system of classification (GHS)
- Re-assessment of biocides and plant protection agents
- Strategy for and development of the geodetic reference grid
- Committee work in connection with road pricing



### **Research-based monitoring and data banks**

The carrying out of research-based monitoring, along with the development of surveillance and monitoring systems and programmes, in areas where there is a need for, for example:

- On-going risk and health evaluations, for example risk profiles
- Continuous surveillance of environmental conditions; among other things, in relation to international agreements
- Control surveillance, for example in cases of a concrete risk of an outbreak of a disease or the effects of regulations

Management of research-based data bank functions. Maintenance, quality control, evaluation and communication of public data collections, as well as development of data systems within areas where the public-sector requires this. The running and development of specialist data banks - including evaluation of data - in relation to regulations and administrative targets.

#### **Cases**

- Emission calculations in accordance with Danish convention commitments
- National nature and environmental supervision
- Climate surveillance in the Arctic area
- National forestry surveillance and statistics
- Nationally representative health and illness investigations in the population

### **Research-based stand-by services**

Laboratory facilities and the maintenance of a specialist, research-based stand-by Department for rapid and effective solution of acute and emerging risk problems concerning, for example, plant and animal diseases, food or environment – problems such as:

- Maintenance of an expert-based stand-by service and emergency capacity: The tasks are to be dealt with in an interaction between research and concrete emergency tasks
- Maintenance of technical and laboratory resources (personnel, ships, test areas and facilities, equipment, accreditation, GLP etc.)
- Reference laboratory activities, including the maintenance of diagnostic expertise and analytical capacity, the development and validation of analysis and methods, supervision and approval of laboratories

#### **Cases**

- Reference laboratories covering, for example, the veterinary area
- Salmonella, blue tongue, foot and mouth disease, BSE
- GMO risk assessment
- Special chemical analysis



### **Obligation to act**

It is part of the research-based public-sector service that the public sector's attention should be drawn to any potential problem area as quickly as possible. The researcher's participation in research environments and other areas of accumulation of knowledge will often result in an early identification of new problems within a specialist area, problems which in the short or long term will become relevant for the execution of public authority.

### **Research and capacity building relating to developing countries**

Third world research or research into developing countries is sector-related research which aims at benefiting the conditions in the developing countries. The Foreign Ministry is the specialist ministry for these matters, and it has been chosen to let research support the building up of research capacity in the developing countries. The funding is distributed partly on the basis of competition, partly on the basis of long-term agreements.

In the context of funding, sector related research is similar to research relating to developing countries, and public-sector consultancy is similar to capacity building, even if - in relation to the Foreign Ministry, too - it can also be a case of regular consultancy.



## Appendix C

### Existing agreements on research-based public-sector services

	University of Copenhagen	University of Aarhus	University of Southern Denmark	Aalborg University	Technical University of Denmark
<b>Ministry of Food, Agriculture and Fisheries</b>	Fødevarøkonomi § 19.22.01	Jordbrugsforhold § 24.33.03			Fiskeriforhold § 24.33.17  Fødevarø og veterinærforhold § 24.33.25
<b>Ministry of Climate and Energy</b>	Understøttelse af Kyoto-konvention, via DMU/AU	Understøttelse af Kyoto-konvention § 23.31.01			
<b>Ministry of the Environment</b>	Skov- og landskabsopgaver § 19.22.01 § 23.51.05	Miljøundersøgelser § 23.31.01			Toksikologiske forhold § 23.21.01
<b>Ministry of the Stat of Denmark</b>		Understøttelse af Grønlands hjemmestyre § 23.31.01			
<b>Ministry of Social Welfare</b>			Folkesundhedsforhold § 16.33.01		
<b>Ministry of Transport</b>					Transportforhold § 28.11.12
<b>Ministry of Foreign Affairs</b>	Skovfrøcenter og Frøpatologisk Institut og DBL § 19.22.01  Udviklingsforskning § 19.22.01				
<b>Ministry of Science, Technology and Innovation</b>	Center for sprogteknologi (CSI) § 19.55.09				Risø (Dansk Dekommissionering) § 19.51  Institut for Rumforskning og Teknologi (geodæsi) (tidl. Danmarks Rumcenter) § 19.55.01
<b>Ministry of Economic and Business affairs</b>				Byggeforhold § 08.37.15	

Paragraphs refer to the Act of Finance



## Appendix D

### The extent of the agreed funding

The Danish 'market' for public-sector services partly is based partly on the publicly requested services within monitoring, consultancy and research, which – in the period 2007 - 2009 - were financed by funding agreements

Current prices Mill. Dkr.	Funding 2007	Funding 2008	Funding 2009	Previous government research institutions
<b>University of Copenhagen</b>	71.5	69.8	57.9 #	Forrest & Landscape # Institute of Food and Resource Economics Danida centre (3) Centre of language Technology
<b>University of Aarhus</b>	429.9	420.0	497.9	National Environmental Research Institute Faculty of Agriculture Sciences
<b>University of Southern Denmark</b>	13.8	13.9	13.0	National Institute of Public Health
<b>Aalborg University</b>	33.1	33.3	33.6 ^	Danish Building Research Institute
<b>Technical University of Denmark</b>	410.0	411.0	435.0 *	Danish Institute for Food and Veterinary Research National Institute for Fisheries Research Danish Transport Research Institute Risø: National Laboratory for Sustainable Energy * Danish Space Center

- The universities' extern research funds and income-covered activities are not included
- The table is excl. forensic medicine
- The table is excl. funding for Risø's maintenance of a national laboratory. After the merger they will be part of the funding for the Technical University of Denmark

# Besides these tasks, other tasks are carried out for the Ministry of Environment within the university's budget

^ 0,5 mill. Dkr which are offered for competition, must be added

\* 9,3 mill. Dkr must be added according to agreement with the Ministry for Environment



## Appendix E

### Consolidation Act no. 1368 of 7 December 2007 - The Act on universities

(extracts, our emphasis!)

#### Purpose

2. The university shall conduct research and offer research-based education at the highest international level in the disciplines covered by the university. The university shall ensure a balanced relationship between research and education, on a regular basis screen for the relevancy of its research and educational disciplines, priorities and develop them further, and disseminate knowledge of academic methods and results.

(2) The university has academic freedom and shall safeguard this freedom and ensure the ethics of science.

(3) The university shall collaborate with society and contribute to the development of international collaboration. The university's academic and educational results should contribute to the further growth, welfare and development of society. As a central knowledge-based body and cultural repository, the university shall exchange knowledge and competencies with society and encourage its employees to take part in the public debate.

**(4) The university may, based on its research, conduct work for a minister by agreement with the minister concerned, cf. however 33 (2).**

(5) The university shall contribute to ensuring that the most recent knowledge within relevant disciplines is made available to non-research-oriented higher education.

#### Academic units

**16 a.** Work tasks pursuant to 2 (4) may be carried out by academic units.

(2) In organizational terms, academic units may be positioned on main academic area or department level.

(3) Academic units on main academic area level are run by a director. The director shall, to the extent possible, be a recognized researcher and shall also have experience of and insight into management and the fulfillment of work tasks pursuant to 2 (4).

(4) The Director of the academic unit is responsible for its management and ensures the quality of and coherence between the unit's work tasks pursuant to 2 (4). The Director also ensures the quality enhancement of the work tasks of the academic unit. Furthermore, the Director ensures that the members of staff in the academic unit contribute to the university's study programmes, as agreed in detail with the head of the Ph.D. school and the head of studies.

(5) The director appoints and dismisses heads of sectors, cf. however 16 (3).

(6) Academic units on departmental level are run by a head of sector. The head of sector shall, to the extent possible, be a recognized researcher and shall also have experience of and insight into management and the fulfillment of work tasks pursuant to 2 (4).

(7) The head of sector shall look after the academic unit's day-to-day management, including the planning and allocation of work tasks. The head of sector shall also follow up on the evaluation of the work of the academic unit. **The head of sector may allocate staff to specific tasks. During the periods in which members of the academic staff are not performing such tasks, they are free to conduct research within the strategic framework laid down by the university for its research activities.**

(8) The further details concerning employment and dismissal pursuant to (5) shall be laid down in the regulations. The employment procedure shall ensure that heads of sectors have academic and managerial legitimacy.

#### Departments and head of department

**17.** Usually, research and teaching are the responsibility of the departments.

(2) The head of department shall undertake the day-to-day management of the department, including planning and allocation of tasks. **The head of department may allocate specific tasks to specific staff. During the periods in which members of the academic staff are not performing such tasks, they are free to conduct research within the strategic framework laid down by the university for its research activities.**

(3) The head of department shall be an acknowledged researcher and have teaching experience.

(4) The head of department shall ensure the quality and interaction between the research and teaching of the department, and in consultancy with the study board and the head of studies, the head of department shall follow up on evaluations of study programmes and teaching.

(5) In the exceptional case, when a head of department is not employed, cf. subsection (1), the dean shall carry out the tasks of the head of department, cf. section 14 (1).

#### Changes in the status of the university

**33. The Minister may lay down special rules governing universities or parts thereof that assume special tasks or where special circumstances speak in favour of it.**

**(2) The Minister of Science, Technology and Innovation can, in exceptional circumstances and after negotiations with the Minister in question and discussions with the university, allocate the university tasks pursuant to 2 (4), on payment, if the tasks are deemed to be of significant social importance.**