Manual for quality assurance of research-based consultancy
at Faculty of Health and Medical Sciences and Faculty of Science

Version 01.2019
Preface

This quality assurance manual has been prepared jointly by the Faculty of Science (SCIENCE) and the Faculty of Health and Medical Sciences (SUND). Through describing the faculties’ system for quality-assuring their research-based consultancy, the purpose of the manual is to support researchers in their work to provide research-based consultancy to public as well as private parties. The quality assurance manual operationalises and is based on the University of Copenhagen’s general strategy, policies and procedures pertaining to the quality assurance of the University of Copenhagen’s research-based consultancy activities.

The manual is intended to support and guide the departments and researchers in their provision of research-based consultancy. Moreover, it forms the basis of systematic dialogue between the faculty managements and the departmental managements on the quality assurance of their research-based consultancy services. Finally, the manual forms the basis of periodical internal quality assurance audits aimed at ensuring the continuous development of responsibilities and tasks. The quality assurance procedures described in this quality assurance manual are based on the widely used ISO 9001:2015 standard, which defines a set of requirements for effective quality management systems.

The quality assurance manual also serves as a basis for communicating with external clients/ordering authorities and other parties about the faculties’ quality assurance of their research-based consultancy services.
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Guide to reading the manual
The manual for quality assurance of research-based consultancy can be read as a single publication. For ease of reading, a brief description is given of where in the manual to find descriptions of the responsibilities and roles of deans, heads of department and project managers. Moreover, areas of particular interest to clients/ordering authorities are highlighted.

This is the first edition of the manual. The manual is updated annually based on user experience. Users are therefore urged to make sure that they are consulting the most recent edition.

The overriding purpose of the manual is to ensure that the research-based consultancy services provided comply with the University of Copenhagen’s quality policy, which sets out that at the University of Copenhagen, we:
- Deliver the agreed services.
- Provide consultancy services with full integrity and based on the arm’s-length principle.
- Ensure continuous quality improvements.

Reading the manual as client/ordering authority
As a client/ordering authority, you must pay particular attention to the following:

The contractual basis must exist in writing – both the agreement concerning the consultancy services to be provided and any agreed changes during the project period. Read more about the requirements to be met by the contract documents and in the requirements to be met by the project description. Special rules apply in the case of ad hoc opinions and brief memoranda.

As part of the contractual basis, the project economy must be described. Read more about the University’s requirements as regards the description and calculation of resources.

Save in exceptional circumstances, all consulting services must be made public, and similarly, publishable research results from a research collaboration must be made available for publication. Read more in section 5.2.2 and in the University of Copenhagen’s code of good scientific practice in research collaborations with external parties (2016).

In case of long-term collaboration, the client/ordering authority’s project owner may benefit from reading the section on guidelines for the research project manager.

Reading the manual as head of department or dean

Dean
The dean is ultimately responsible for quality-assuring the research-based consultancy services at the Faculty. The responsibilities and role of the dean in connection with the quality assurance activities are described in section 6.1 and include:

- Support for implementation and learning
- To conduct an annual review of the policy and procedures
- To ensure external and internal communication.

**Head of department**

The head of department is responsible for the local handling of the quality policy for research-based consultancy within the framework of the quality assurance system. This responsibility includes ensuring that the department has implemented the quality assurance procedures described in this manual, but also the head of department’s responsibilities in connection with specific agreements with external parties on research-based consultancy. The responsibilities and role of the head of department are elaborated on in section 6.2.

**Reading the manual as project manager**

Together with the participating researchers, the project manager is responsible for following, executing and delivering the agreed services based on the relevant procedures and guidelines at the University, including the quality assurance procedures and guidelines set out in this manual. The responsibilities and role of the project manager are elaborated on in section 6.3.

**Structure of the manual**

The concepts used in connection with research collaboration with external parties are defined in section 2, while section 3 presents the general framework and terms for such collaboration. Section 4 summarises the quality policy for research-based consultancy based on section 3. Section 5 describes the management and the division of responsibilities at the University of Copenhagen, as reflected in the quality assurance system. In section 6, the practical implementation of the quality system by those responsible is described in detail, including the actions to be implemented. Examples and suggested templates are provided, where relevant. Section 7 describes how the quality assurance system ensures continuous learning and improvements. Section 8 presents the support functions forming part of the University of Copenhagen’s general administrative support functions, and which form part of the administrative basis for providing research-based consultancy services.
1. Introduction

The ambition of the University of Copenhagen (UCPH) is to leverage its knowledge and expertise to create new value for society through collaboration and societal commitment\(^1\). The Faculty of Science (SCIENCED) and the Faculty of Health and Medical Sciences (SUND) – both with considerable experience from research collaborations with industry and government agencies and institutions – contribute to realising this ambition, among other things through an increasing commitment to providing research-based consultancy services.

In order to support this development, SCIENCED and SUND have jointly prepared this general framework for the quality assurance of the faculties’ research-based consultancy services. It is based on the experience, procedures and paradigms which already exist at departments which have been involved in research-based consultancy in the past. The description of a general quality assurance system at faculty level is to establish a common framework and ensure learning and improvements across departments and faculties.

Moreover, the quality assurance builds on and is closely integrated with UCPH’s practices, procedures and rules within research practice, financial management, communication etc.

\(^1\) Talent and collaboration – Strategy 2023
2. Definitions

A presentation is given here of key concepts in the field of research-based consultancy (government agencies and institutions, and private)².

Research-based consultancy

Brief definition: Research-based consultancy is a generic term covering the various types of analysis and consultancy services exchanged by the University with external clients/ordering authorities, including both private and public parties.

Research-based public-sector services

Brief definition: Research-based public-sector services cover both sector-related research and tasks undertaken and consultancy provided directly for and to government agencies and institutions.

Elaboration: The term ‘research-based public-sector consultancy’ is used in the political-administrative system. According to the website of the Ministry of Higher Education and Science, ‘research-based public-sector services’ is a generic term describing a number of services performed by the universities for the Danish state and other players. The services include everything from research within a specific area to concrete contingency and consultancy services.

Research-based public-sector consultancy

Brief definition: Research-based public-sector consultancy services are part of the research-based consultancy services provided and include tasks undertaken upon the direct request of government agencies and institutions.

Elaboration: Research-based consultancy services cover a wide range of services. They include consultancy services of a short-term or medium-term nature (acute ad hoc tasks, expert advice in connection with legislative preparatory work as well as reports and evaluations in various forms). The services also include ongoing advice and monitoring of a more long-term or permanent nature, including monitoring, data mapping tasks, determination of fertiliser norms, environmental status

² References:

Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening 2009 (Universities Denmark’s White Paper on research-based public sector services 2009)

UCPH’s Code for public-sector services

Ministry of Higher Education and Science on research-based public-sector consultancy

University of Copenhagen on research collaboration
reports, risk assessments, analysis and development tasks, committee memberships, expert groups and international work etc.

**Public-sector consultancy resources**

**Brief definition:** Based on its sector-related research, the University is obliged to ensure that the necessary academic expertise and resources are available at all times – including relevant, internationally available knowledge and the necessary equipment and infrastructure – within the specific fields of research covered by the agreement so as to ensure that the University is able to provide any public-sector consultancy requested within these fields.

**Elaboration:** The public-sector consultancy resources are the academic competencies and infrastructures etc. enabling the University at any given time to undertake tasks within the fields of research covered by the agreement with the ministry. Constant availability combined with a willingness to take action which can be activated in acute situations and/or in connection with topical ‘safety issues’ with a political focus. The principle of ministerial responsibility means that ministers may be called upon to take specific action and at short notice.

**Commissioned research**

**Brief definition:** Commissioned research is research commissioned by a company, a government agency or institution or an organisation in the form of analyses, measurements or other specialist services from researchers.

**Elaboration:** The commissioning of research involves entering into an agreement with the University of Copenhagen, thereby gaining access to the researchers’ laboratory facilities, academic networks etc. Commissioned research usually revolves around a clearly defined project.

**Co-funded research**

**Brief definition:** A collaborative project between more than two parties and which is of interest to the department’s research environments, and where a cooperation agreement is made between the University and the client/ordering authority setting out the terms of their cooperation. The funding model may differ from the terms applying to commissioned research.

**The arm’s-length principle**

**Brief definition:** Clear separation of the research-based assessment from the subsequent decision-making and handling by politicians and government agencies and institutions.
Elaboration: The application of the arm’s-length principle does not preclude contact and dialogue between the government agencies and institutions and the University. On the contrary, the agreements emphasise the importance of direct and open dialogue. Researchers often become aware of potential challenges before politicians and government officials do, and dialogue is one way of enabling decision-makers to handle any issues ‘with due diligence’.

Service

Brief definition: A product (report, analysis, data, code, report etc.) supplied by the researcher to the client/ordering authority in exchange for consideration (typically payment) based on a written agreement, a contract.

Elaboration: Research-based consultancy can result in many different products, and in this context the reciprocity of the exchange is of decisive importance. For example, answering questions from journalists, companies or private individuals or other people who are after an assessment, advice or an opinion does not constitute a service unless an agreement concerning payment or similar consideration has been made.

Project

Brief definition: The whole process involved in a particular activity, such as a research-based consultancy activity.

Elaboration: Projects typically comprise the making of an agreement on content and form, the performance of the agreed activities and the final delivery of the agreed services, including publication. Projects with external parties are generally based on written agreements and a project description.

Framework agreement

Brief definition: A long-term agreement, a contract, between a university and a government agency or institution concerning the provision of research-based public-sector services within a number of areas, each described in a service agreement.

Service agreement

Brief definition: A description of a specific set of academic fields under a framework agreement, in which the university is obliged to ensure the availability of the competencies necessary for the University to be able to provide any research-based consultancy requested by a government agency.
or institution. Service agreements include resource specifications and are often associated with annual cycles of work, which describe the specific projects to be undertaken under the agreement on an annual or a rolling basis.

Figure 1 Illustration of the relationships between the various documents for individual research-based activities under individual contracts (left-hand column) and for research-based public-sector services undertaken under existing framework agreements (right-hand column). Please note that a framework agreement may be associated with a number of service agreements.
3. Framework and conditions

The research-based consultancy is based on the University of Copenhagen’s existing research practice and must support the University’s overall mission and vision (see Strategy 2023).

3.1 Principles for research collaboration with external parties and public-sector consultancy

The University of Copenhagen (UCPH) follows the universities’ general practice as set out in Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening 2009 (Universities Denmark’s White Paper on research-based public sector services 2009) (only in Danish, however it has an English summary) on research-based public-sector consultancy with the fundamental principles: Quality and integrity, openness and transparency, freedom of expression and academic freedom.

Moreover, UCPH has formulated a number of principles in the University of Copenhagen’s code of good scientific practice in research collaborations with external parties (2016) and in its Code for public-sector services (2016), which also set out the general framework for the provision of research-based consultancy.

3.2 Stakeholders

The main stakeholders in connection with the provision of specific research-based consultancy are the University of Copenhagen and the client/authority ordering the consultancy services. Other stakeholders may be involved (government agencies and institutions, businesses, the general public), and the relationship with such other stakeholders is often regulated in the agreement made, respecting applicable legislation and the framework for the University’s activities.

3.3 Scope

Research-based consultancy is consultancy provided on the basis of an agreement made with an external client/ordering authority. The tasks undertaken are varied and may consist of everything from small ad hoc services to major market research and consultancy projects of interest to researchers. Tasks may cover both monitoring tasks and specialist analyses of samples and scientific interpretations/assessments based on the faculties’ competencies and infrastructure.
In designing the quality assurance system for research-based consultancy, focus has been on the unique conditions which must be in place both internally and externally in connection with the provision of research-based consultancy by SCIENCE and SUND, i.e. the delivery of the agreed service. The most important part of the consultancy is based on existing knowledge, research and research competencies, documented research methods and research processes. The research quality is evaluated on an ongoing basis, both through the ongoing peer review of publications, and through the departmental research committees as well as UCPH’s concept for periodic research evaluations. Moreover, the quality assurance system draws on other robust processes and structures at the University of Copenhagen which form part of and support the delivery of research-based consultancy, including management, financial management, HR, IT operations, legal assistance/Tech Trans etc.

It is worth looking at quality assurance and quality management as consisting of three types of elements, see visualisation in Figure 2.

**The foundation:** The quality assurance of research-based consultancy rests on a solid foundation made up of the support functions (see section 8) and the University’s management structure and division of responsibilities (see section 5).

**The columns:** The provision of research-based consultancy is supported by procedures, paradigms, guidelines and other similar resources etc. This quality assurance manual defines minimum requirements for these and includes selected templates, but any more elaborate versions and special instructions are prepared and available at departmental level (see section 6).

**The superstructure:** Illustrates the main steps involved in the many research-based consultancy activities implementing the specific procedures and instructions at project level. This quality assurance manual describes the general procedure and the absolute minimum requirements to be met, while also presenting practice suggestions, templates etc.

**Delimitation**

This quality assurance manual does not cover the quality assurance of research in general. Please refer instead to the Danish Code of Conduct for Research Integrity. See also the course RCR – Responsible Conduct of Research for further details. It is assumed that the research-based consultancy is based on research which meets these recognised standards for good research.
4. Quality policy for research-based consultancy

Based on the above framework and conditions, the quality policy is as follows:

1. We will ensure a systematic approach to delivering research-based consultancy in accordance with the agreements made and maintain transparent and credible communication with the client/ordering authority – from when the agreement is concluded until the agreed service has been delivered and communicated. Well-defined processes and ongoing documentation ensure research-based consultancy of the highest quality for government agencies and institutions as well as businesses.

WE DELIVER THE AGREED SERVICES

2. We ensure compliance with the arm’s-length principle both in our research and in our provision of consultancy services. Research activities in connection with research-based consultancy must thus live up to the University of Copenhagen’s code of good scientific practice in research collaborations with external parties. Like the research, the research-
based consultancy must be transparent, endeavour to ensure objectivity and ensure the division of roles and responsibilities of researchers and clients/ordering authorities, respectively.

**CONSULTANCY WITH FULL INTEGRITY AND BASED ON ARM’S-LENGTH PRINCIPLE**

3. We make it easy for staff and management to create a foundation for learning and improvements which can increase value creation in the process of providing research-based consultancy in relation to relevant stakeholders.

**WE ENSURE CONTINUOUS QUALITY IMPROVEMENTS**

5. **Division of responsibilities and management**

5.1 **Management and division of responsibilities at the University**

Responsibility for the quality assurance system, as described in this document, is clearly assigned to the existing management structure at the University of Copenhagen (UCPH) and therefore rests on a solid organisational foundation, based on a clear division of responsibilities and delegatory framework. The [Danish University Act](#) (only in Danish) and the [Statutes of the University of Copenhagen](#) lay down the framework for the University’s activities, including the framework for the provision of research-based consultancy by the University’s researchers.

As can be seen from the statutes, the Board of the University of Copenhagen is the University’s highest authority and responsible, e.g., for entering into a strategic framework contract with the relevant minister (statute 17) and for appointing the University’s senior management, including the rector (statute 18). The rector appoints the deans (statute 41), and the dean “manages the faculty upon authorisation from the rector, ensures coherence between research and education as well as public-sector services and is responsible for the quality of education and teaching as well as public-sector services and cross-disciplinary quality development of the faculty’s education, research and public-sector services.” The dean appoints the heads of department who are responsible for the day-to-day management of the departments within the framework of the statutes (statute 45). Within certain limits, the heads of department may, among other things, instruct employees to undertake particular tasks, always respecting their academic freedom.
Responsibility for the various parts of the quality assurance system and its implementation is anchored in this very clear management structure.

5.2 Management and responsibilities in quality assurance system

5.2.1 Dean
The dean is ultimately responsible for quality-assuring the research-based consultancy services at the Faculty, including:

- Ensuring clear delegation to the heads of department and raising awareness in management forums
- Ensuring an annual evaluation of whether the Faculty’s deliverables meet the quality policy, as well as continuous improvement and revision of the quality assurance system, including alignment with UCPH’s other policies, and cross-organisational sharing of experience and learning
- Communicating internally at the Faculty about the importance of effective quality management and compliance with the standards of the quality assurance system
- Ensuring regular briefing of and dialogue with the rector about the issue
- Ensuring the availability of the resources needed to support external communication with a focus on handling of risks and profiling.

5.2.2 Head of department
The head of department is responsible for the local handling of the quality policy for research-based consultancy within the framework of the quality assurance system. This is done by ensuring that a number of supporting guidelines and procedures are made available at the department. The head of department is responsible for:

- Ensuring that the employees have easy access to information about the quality assurance system, including this document
- Ensuring that the provision of research-based consultancy is based, at all times, on a written contract, prepared in accordance with UCPH’s guidelines for such contracts
- Ensuring the availability of the academic resources and competencies required to undertake a consultancy task, and assessing and reducing the financial risks associated with the provision of consultancy through the conclusion of clear agreements with the client/ordering authority
- Establishing local procedures which ensure the availability of the competencies required to execute specific research-based consultancy tasks and agreements, e.g. through recruitment and staff development
- Ensuring and supporting the preparation of project descriptions for research-based consultancy projects
- Ensuring that all relevant technical quality standards are available to the department’s employees and implemented in the department’s policies and procedures, as appropriate
- Preparing guidelines on the peer review of consultancy services, and ensuring that the guidelines are available to the researchers undertaking peer reviews
- Supporting the publication of consultancy services, e.g. by ensuring that a procedure is available on the preparation of services for publication so as to ensure compliance with the minimum requirements for transparency. A service must always be made public once the work has been completed, and within a reasonable time frame\(^3\). In exceptional cases, special conditions may legitimise delaying publication, e.g. if the work is covered by legislation which prescribes the observance of confidentiality for a specified period. Reasons for delaying publication must be provided and documented.
- Ensuring that the department’s procedure for communication and PR supports the consultancy
- Implementing procedures for gathering of experience and learning at the department in collaboration with the Faculty
- Ensuring transparency in respect of the delegation of responsibility and support functions in the field of consultancy.

### 5.2.3 Project manager

Together with the participating researchers, the project manager is responsible for following, executing and delivering the agreed services based on the relevant procedures and guidelines at the

\(^3\) For example, the parties to the framework agreement between the University of Copenhagen (UCPH) and the Ministry of Environment and Food of Denmark may agree to delay the publication of consultancy services for up to seven working days after delivery to the Ministry, while UCPH’s general principles for cooperation with external parties prescribe a maximum delay of three months (one month for commenting and two months for patenting) as a general rule.
University, including the quality assurance procedures and guidelines set out in this document. The project manager is specifically responsible for:

- Ensuring the alignment of expectations with the client/ordering authority prior to the signing of the agreement
- Ensuring the establishment of a contract and project description reflecting the allocated resources
- Agreeing the staffing with the departmental management and ensuring the administrative affiliation
- Completing the project in accordance with the contract documents, observing good professional standards in the work, taking into account the quality assurance system requirements and procedures applying to the consultancy
- Ensuring the quality of the dialogue with the client/ordering authority as well as other external relations about the task, e.g. documenting the key elements and ensuring transparency about these matters
- Ensuring that comments from peer reviewers and the client/ordering authority are handled prior to the completion of the task
- Ensuring that the client/ordering authority is notified prior to publication, and assume responsibility for any further communication about the services delivered.

5.2.4 Peer reviewer

The peer reviewer of a consultancy service is responsible for:

- Providing reasoned criticism of the contents, methods, conclusions etc. of the work and for suggesting relevant improvements, always considering the focus and basis of the consultancy service delivered
- Providing feedback on whether the service is communicated effectively to the client/ordering authority
- Playing a constructive role in untangling any professional disagreements between the peer reviewer and the project manager, possibly in collaboration with the head of department.
6. Implementation of the quality assurance system

The quality assurance system supports the above division of responsibilities by providing specific directions for action at all levels and for all roles. This section describes these actions in the necessary degree of detail for all levels and roles. Focus is on what is special for our research-based consultancy, while procedures and actions are closely anchored in the existing management and support functions and processes at the University. This ensures transparency, efficiency, permanence and ownership of quality assurance throughout the organisation.

6.1 Implementation by the dean

The dean’s responsibilities are centred around the quality assurance system in general and its implementation. The dean discharges these responsibilities as set out in the following sections.

6.1.1 Support for implementation and learning

The dean delegates the day-to-day implementation of the quality assurance system to the heads of department and imposes on the heads of department the responsibility of meeting UCPH’s and the Faculty’s policies in this area. This includes the responsibility for assessing (academic and financial) risks and for ensuring that our research-based consultancy in general does not pose a risk to the University’s core tasks.

Once a year, the dean addresses the topic of research-based consultancy at a meeting. This is done in collaboration with relevant dean colleagues and with the participation of relevant heads of department. At this meeting, the dean follows up on the efficiency of the quality assurance system and the departments’ handling of risks and their experience with the system in the past year as well as any need for internal knowledge sharing and courses. The starting point of the meeting is the annual reporting from the departments, see section 6.2.9. A template for the annual feedback is prepared and continuously improved. The meeting is also integral to the quality assurance system’s ability to ensure learning and improvements across the faculties.

6.1.2 Annual review of policy and procedures

The dean ensures that the Faculty organisation performs an annual review of the foundation of the quality assurance system. This includes the contents of this document (quality policy, guidelines and instructions). Alignment must be ensured with the development of UCPH’s policy in the area and the development of the underlying procedures and practices in the support functions. For
example, it must be ensured that all external references are still valid and active, alternatively that they are revised and adapted.

6.1.3 External and internal communication
The dean communicates internally about the quality assurance system in connection with its implementation, significant revisions and in connection with the annual review and learning process in relation to research-based consultancy.

The dean informs the rector about the annual review and learning process. Moreover, the dean informs the rector on an ad hoc basis about important developments, including assessed risks, and at the dean’s own discretion about expected media attention and public debate surrounding, for example, the results of research-based consultancy tasks.

Through the Faculty’s communication experts, the dean supports the departments’ external communication, when deemed timely from the point of view, e.g., of handling any risks or potentially improving the communication about the Faculty’s role in society in the area.

6.2 Implementation by head of department
The head of department’s responsibilities relate to two main areas. Firstly, the head of department supports the department’s research-based consultancy activities by ensuring that a set of relevant instructions and guidelines is available and updated at all times. Secondly, the head of department is responsible for managing the research-based consultancy activities, for example for ensuring that procedures support compliance with the quality policy as well as UCPH’s other procedures and policies.

6.2.1 Contractual basis
The provision of research-based consultancy must be based on a written contract between UCPH and the client/ordering authority. Research-based consultancy is usually provided either as a commercial activity (DR30), based on cooperation agreements between the University and the client/ordering authority (often DR50) or under long-term framework agreements (usually DR10).

The head of department must support the conclusion of contracts in the relevant form. This can be done by ensuring that information about the department’s procedures for concluding contracts on research-based consultancy is made available on the department’s intranet, and by appointing contacts in the administration.
The department’s procedures must respect the general procedures for the area at UCPH and ensure the necessary legal checking of the contracts. It is a good idea to base contract templates on existing variants at UCPH. Clients/ordering authorities often prefer to use their own contract formats. Such contract formats must also be subjected to legal checks by UCPH prior to the conclusion of contracts.

The currently applicable legal checking procedure is described in the following link. Legal checks are performed by the faculty secretariat for cooperation agreements and contracts which do not involve agreements on intellectual property rights:

- [Legal check of agreements with external cooperation partner (only in Danish)]

UCPH’s overall guidelines and existing cooperation agreement and contract templates can be seen here:

- [Overview of cooperation agreements on Research Portal at KUnet]

The procedures for the legal checks of contracts and cooperation agreements by the Tech Transfer Office are also described here, specifying the distribution of intellectual property rights.

In connection with the conclusion of major framework agreements with ministries on research-based public-sector services, the Rector’s Office must often be involved as such contracts must often be signed by the rector, and the rector must decide whether the Board of the University of Copenhagen should be informed and asked to approve the agreement, see ‘Principles for the Board’s involvement in connection with research-based consultancy services’. In all other cases and regardless of the type of consultancy involved, the head of department must sign all contracts on research-based consultancy entered into between a department and an external client/ordering authority. The purpose of the above guidelines on the conclusion of contracts is, among other things, to protect the researcher’s and the University’s rights and obligations in relation to intellectual property rights, the researcher’s duties and tasks under, for example, [the University Act], [the confidentiality rules of the Danish Public Administration Act (only in Danish)] and [the Danish Data Protection Act], and to ensure transparency.

### 6.2.2 Resources: Staffing and financial management

The head of department is responsible for ensuring the availability of the academic resources and competencies required to undertake a consultancy task, and for assessing and reducing the financial risks associated with the provision of consultancy. The academic resources include the researchers...
involved, access to data and access to laboratories and other relevant infrastructure. Sometimes, some resources are made available by the client/ordering authority.

As a general rule, the head of department is responsible for appointing a project manager for each specific consultancy project and also for making the agreed staff resources available for the project, see contract for the specific consultancy work. As a general rule, the head of department may change the staffing for a consultancy project as long as compliance with the contractual requirements is ensured as well as compliance with any agreements on notices and objections. The head of department should ensure that the wording of the contract ensures such flexibility to the greatest possible extent as well as the right to manage and delegate the work.

The head of department must assess the economic framework for the consultancy project and any risks associated with it. Concerning specific project types:

**Consultancy tasks on consultancy-like terms/commissioned research**, including, for example, simple analyses, testing, programming assignments etc., are to be regarded as commercial activities (DR30), and the pricing must not be distortive of competition for the private sector. As a general rule, agreements must therefore always ensure that indirect costs are covered through the addition of 180% overheads.

**Long-term framework agreements** on research and research-based consultancy with government agencies and institutions are often concluded by the rector. The financial budgeting for such tasks must be based on *Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening 2009* (*Universities Denmark’s White Paper on research-based public sector services 2009*) (only in Danish, however it has a summary in English). This means that at least half of the budget is earmarked for research competency funding within the area covered by the framework agreement, and that funds are allocated to covering the documented full indirect costs of the activities. In this way, the long-term availability of competencies is protected against risks, and it is ensured that the framework agreement does not hamper other activities.

**Cooperation agreements on research-based consultancy** can be established when the research is of interest for the department’s academic environments. In such cases, cooperation agreements can be made between the University and the client/ordering authority which deviate from the financing terms set out above. The head of department is still responsible for assessing and managing the financial risks associated with any cooperation agreement. The head of department is requested to base the budgeting of external projects on the Faculty’s guidelines on external activities. The head
of department is responsible for balancing the financial risks with the academic potentials, and the cooperation agreement must present arguments for the research interest.

The head of department must ensure that the department’s guidelines on financial management, time registration, if relevant, as well as financial reporting and invoicing to the client support the research-based consultancy activities, including the handling of any financial risks.

6.2.3 Assessing and maintaining competencies
The head of department is responsible for establishing departmental procedures which ensure the availability of the competencies required to execute specific research-based consultancy tasks and agreements. The following guidelines apply:

The head of department must ensure that the department only ever undertakes research-based consultancy tasks in fields in which the department has (available) research-based competencies. Projects falling outside the department’s field of expertise must be rejected, and projects falling partially outside the department’s field of expertise may only be undertaken in collaboration with other complementary, qualified academic environments. The head of department or his representative must carry out an assessment of this aspect prior to signing the contract.

In connection with long-term framework agreements on research-based consultancy, for example in connection with public-sector consultancy, the department can undertake to maintain a minimum of research-based consultancy competencies within a well-defined set of academic fields. It is the responsibility of the head of department to ensure that the department meets the contractual requirements as regards the level of research quality and the competencies available in the specified fields. The University’s periodical external evaluations of the research undertaken by the department are used to evaluate the extent to which these competencies are supported by the research undertaken by the department.

The head of department is tasked with ensuring acknowledgement of the research-based consultancy, also at employee level, and with ensuring the ongoing development of staff competencies in the field of research-based consultancy, as appropriate. It is recommended that this is done by assessing and looking at performance in this area as part of the basis for pay negotiations and in connection with the recruitment of researchers, for example in parallel with the way in which teaching performance and competencies are included. The head of department ensures that individual performance and competency development are supported through performance and development reviews and using other HR competency development tools. In cases where new
employees are involved in providing research-based consultancy, it is recommended that competency development is ensured through measures such as peer training and mentoring. Such measures are particularly suited to supporting competency building as regards dialogue processes, the alignment of expectations and the assessment of the relationship between resources and obligations.

6.2.4 Quality requirements for project descriptions

The quality assurance of the academic work involved in a research-based consultancy project starts with the preparation of a project description. The project description is prepared in dialogue with the client/ordering authority, and this is key to ensuring a shared understanding and the alignment of expectations for the work and the form and nature of the consultancy service. The form of the project description can vary according to the parties’ wishes, but must always include the following elements as a minimum:

- A description of purpose, delimitation and language use
- A description of the data basis etc. as well as the researcher’s choice of approach and method
- A description of the project manager and any other project participants, as well as the allocated resources
- If the task is a contribution towards a large project to which a number of departments or universities are contributing, this must appear from the project description, including any special requirements following from this
- A description of the work process and a time schedule, including a description of the agreed dialogue process with the client/ordering authority
- If a steering committee or reference group is appointed, this must appear from the project description or contract, including the group’s powers and role
- If an agreement is made to involve or consult possible stakeholders about the project or the project results, this must appear from the description or the contract
- A reporting plan, setting out the agreed format (memorandum, report etc.) and timing of (part) deliveries
- The project description must name the person expected to act as peer reviewer of the work
- The time of publication must be agreed either as a specific date and/or based on degree of completion, and it must be agreed who is responsible for publication.

Consultancy work must always be made public once the work has been completed (and always
concurrently with delivery to a third party at the latest), and within a reasonable time frame, except where special circumstances may legitimise delaying publication, see section 5.2.2 above on the departmental management’s responsibility for ensuring that this happens.

The head of department supports this by providing guidance on requirements for and the value of the project description, e.g. by making this document available on the intranet, including possibly a project description template for research-based consultancy services (Appendix 1). Finally, it is recommended asking colleagues to comment on the focus of the project description, choice of methodology etc.

6.2.5 Other technical quality standards

The present quality assurance system concerns support for and the conduct of research-based consultancy in itself. Such consultancy may be based, in full or in part, on activities in respect of which requirements may be made for the fulfilment of special technical quality standards.

This includes:

- Consultancy based on laboratory analyses performed and documented in accordance with nationally or internationally approved standards and/or in laboratories approved according to such standards and/or carried out by qualified personnel certified according to recognised systems
- Consultancy based on or integrated with the development of software, digital tools or routines that are performed and documented in accordance with nationally or internationally approved standards and/or carried out by qualified staff certified in accordance with recognised systems
- Consultancy based on monitoring activities performed and documented in accordance with nationally or internationally approved standards and/or carried out by qualified staff certified in accordance with recognised systems
- Consultancy based on, performed and documented in accordance with nationally or internationally approved standards for risk assessments and warning systems and/or carried out by qualified staff certified according to recognised systems.

The head of department must ensure that all relevant technical quality standards are available to the department’s employees and implemented in the department’s policies and procedures, as appropriate.
6.2.6 Peer review procedure

All research-based consultancy services agreed and delivered must be peer-reviewed. Peer reviews can be carried out in a number of different ways, often tailored to the specific needs of a project. For most consultancy services, an internal peer review suffices. External peer reviews may be used, e.g., when specialist competencies are required which are not available internally, or when specifically agreed with the client/ordering authority. Any desire for an external peer review and the financial framework for such review must always be agreed as part of the contractual basis.

The head of department prepares a guideline on the peer review, possibly tailored to the various forms of services to be supplied, and ensures that the guideline is made available to the researchers who are due to conduct the peer review. In connection with external peer reviews, it is important to use peer reviewers from other research institutions with competencies in the academic field concerned and who have an understanding of the relevant context. If the guideline for external peer reviewers is used, it may be an idea to provide additional information about the context.

The guideline must contain the following information as a minimum:

- Information to the effect that by accepting the task, the peer reviewer also accepts being named as a reviewer, for example in a colophon in the report
- Specific requirement for a minimum of independence; for example peer reviewers must not be involved in meetings at which decisions of importance to the execution of the work are made, nor may they be members of reference groups or be involved as project participants
- Description that peer reviewer’s assessment and commenting on the work are compliant with the requirements set out in the project description and the contractual basis, including the resources available
- Description of how any disagreements between the peer reviewer and the authors are to be handled and reflected in the final results.

The head of department may want to refer to this Guideline for peer reviewers (Appendix 2).

6.2.7 Procedure for approval and publication

Consultancy work must always be made public once the work has been completed and within a reasonable time frame (and always concurrently with delivery to a third party at the latest), except where special circumstances legitimise delaying publication, see section 5.2.2 above. Such special circumstances must be described to allow an assessment to be made by the head of department and others.
The department supports the publication of research-based consultancy work, e.g. by publishing the work itself. Prior to publication by the department, the department’s publishing unit must be informed of the names of those responsible for the project (project manager and author(s)), the client/ordering authority, the agreed delivery time and any agreements made concerning publication (who publishes and when). It is up to the departments to decide on their publication practice, but departments should aim to follow the same practice for the same type of work. Moreover, the departments may adopt local procedures for the linguistic and technical quality assurance of their publications.

The head of department prepares a procedure describing the way in which deliverables are prepared for publication. It is recommended that the publishing unit at the department be involved as early as possible in the process and that it ensures that key criteria are met:

- Prior to publication of the deliverables, it must be checked that the contractual basis has been complied with, for example the stipulations on who publishes and when.
- If the department is responsible for publication, it must be checked that the client/ordering authority has been notified about the publication in due time.
- It must be checked that information about the client/ordering authority and about the financing of the project is clearly displayed.
- It must be checked that information is provided about the peer reviewer(s), about the dialogue process with the client/ordering authority and about any contributions by third parties, for example in the preface.
- It must be ensured that all authors are included and informed about the publication.

When this is in place, the final layouting can be done in readiness for publication, usually by the department itself, but there may be exceptions.

Sometimes deliverables are contributions towards large projects based on contributions from a number of departments or universities. In this case, the deliverables may not be made public until all the contributions have been received. No matter who is responsible for publication – whether the department, the client/ordering authority or a third party (e.g. another department) – it is recommended that the above procedure be followed in so far as is possible, and that the right to publish, e.g., technical background reports etc. be secured, preferably before, but otherwise after the publication of the main deliverables.
Similarly, it may be agreed that either the client/ordering authority or a third party be responsible for final publication of a deliverable. In these cases, care must also be taken to ensure that the above requirements for timeliness and transparency are complied with.

Inspiration can be found in the template for preparing checklist prior to publication of research-based consultancy (Appendix 3) and in the template for colophons in publications of research-based consultancy services (Appendix 4).

6.2.8 Communication and PR

In connection with the publication of deliverables, it is recommended that a contact be named and contact details provided for enquiries concerning the project. Contact details for the department’s press contact for general enquiries should at least be provided.

It is recommended that the department prepares local procedures on how the press and any follow-up PR should be handled. It is recommended that the department’s communication team be notified of any PR work (press release, mailing lists etc) well in advance so that this can be agreed with the project manager and coordinated with the time of publication. It is up to the department itself to decide whether and how to support such PR work.

In connection with major media events and the handling of public debates, it may be a good idea for the department to inform and possibly involve the Faculty’s and the University’s communication teams. The client/ordering authority should also be involved.

6.2.9 The department’s learning processes and continuous improvements

The head of department must ensure that the experience gained by the department’s employees in the field of research-based consultancy, including the quality assurance system, is gathered, shared and used as a basis for continuously improving consultancy practices and routines as well as the various components of the quality assurance system. The head of department must ensure the gathering at least once a year, possibly every six months, of any experience with and reflections on the research-based consultancy services provided, including the quality assurance system. The gathering of experience can take place at one or more meetings or workshops for relevant employees.

At departments involved in sufficient volumes of research-based consultancy, feedback is collected through sampling of feedback from the clients/authorities ordering the consultancy. This can be done at meetings, by way of short questionnaires or interviews. The focus here is on evaluating the
process of aligning expectations, the preparation of the project description, the parties’ dialogue and
alignment of expectations during the project period and the quality of the deliverables in view of the
intended use. The evaluation is thus not of the underlying research, or of whether the results were as
desired or expected by the client/ordering authority, but solely of whether the deliverables lived up
to what had been agreed.

The lessons learned are summarised in a short memorandum, highlighting important experience
gained and, if relevant, any changes in practice and/or the quality assurance system which are being
considered or which may have been implemented. The memorandum must be sent to the dean, see
section 6.1.1 and section 7.

6.2.10 Delegation and support functions at departmental level
The head of department may choose to delegate his role in the day-to-day coordination and
management of research-based consultancy activities as described above to one or more employees,
for example, deputy heads of department or section managers. Such delegation must be well-
documented and transparent for the employees, for example through the posting of information on
the departmental intranet, and it must be clearly communicated to external clients/ordering
authorities.

In the procedures and guidelines that exist to support the implementation of the quality assurance
system by the departments, a number of specific roles and tasks are associated with various
departmental positions. The head of department must keep up-to-date a list of names and contact
details for the persons filling the specific roles at any given time.

6.2.11 Head of department's checklist
Here follows a brief summary of the action points which the head of department is responsible for
implementing and taking care of to meet the requirements of the quality assurance system.

a) Ensuring that the employees have access to information about the quality assurance system,
   including this document, see section 6.2
b) Description of the departmental procedures for the conclusion of contracts, budgeting and
   staffing, including the appointment of administrative contacts on the intranet, see sections
   6.2.1 and 6.2.2
c) Description of procedures to ensure the availability of the competencies required to execute
   specific research-based consultancy tasks and agreements, see section 6.2.3
d) Description of project description template, see section 6.2.4
e) Description of supplementary technical quality standards (if applicable), see section 6.2.5
f) Guideline on peer review, see section 6.2.6

g) Procedure for preparation and publication of consultancy work, see section 6.2.7

h) Procedure for handling the press, see section 6.2.8

i) Procedure for gathering of experience and learning points, internally and possibly externally, see section 6.2.9

j) Description of the delegation of responsibilities and overview of support functions and resources, see section 6.2.10

As the entire quality assurance system is based on existing academic, administrative and management practices and procedures, implementing it should be relatively easy:

- Item a) can be implemented relatively easily, for example via the intranet, while items b) and h) have presumably been implemented already based on the existing requirements for the departmental management teams.

- For departments which provide only limited or no research-based consultancy, items d), f), g) and i) can be implemented by referring employees to this document and appendices as constituting the applicable guidelines by and applying the suggested minimum procedures and templates as needed. Item e) may be irrelevant for these departments. Items c) and j) can be implemented by adding a small number of elements to the existing descriptions of responsibilities and the delegation of responsibilities to heads of section, heads of administration etc.

- For departments where research-based consultancy constitutes a major activity, it may be relevant to prepare department-specific versions of selected documents and procedures, always considering the minimum requirements imposed by the quality assurance system.

- All departments involved in research-based consultancy services must ensure that all applicable standards and procedures are applied and complied with at all times. The resources required for such follow-up will vary according the scope of the consultancy activities engaged in.

### 6.3 Implementation by project manager

Project managers draw on and implement the quality assurance system in their research-based consultancy activities. The work is carried out in a series of steps where the project manager draws

Figure 3 Elements in research-based consultancy practice. Described in detail in sections 6.3.1-6.3.7.
on the above guidelines as described here or by the department and draws on the University’s support functions. Below follows a description of how this should be done at the various steps, while recommendations are also provided on expedient practices, where relevant. The various elements of the work are illustrated in Figure 3.

6.3.1 Project manager is responsible for contract and project description

A consultancy assignment often comes about following a dialogue between a client/ordering authority and researchers on the topic or question on which the consultancy centres. It is recommended that the project manager use the dialogue as an initial opportunity for aligning expectations. The most expedient way of going about this is by listening to and questioning the client/ordering authority about the client’s/authority’s needs, while at the same time being clear about and advising the client/ordering authority about the relationship between resources and wishes, and about the possibilities – in terms of data and technical resources – for answering the research question or shedding light on topics from different angles. This dialogue will ensure that the final agreement defines a topic and questions on which it is possible to shed some light on the basis of solid research. This is the first step of the quality assurance process.

Once the parties have agreed to enter into an agreement on the provision of research-based consultancy, the project manager must initiate the process which involves the writing of a contract and the preparation of a project description as such. For consultancy tasks carried out under a framework agreement and for resources allocated under the work programme of a performance agreement, a project description is all that is needed as the framework agreement is the contract, and the budget appears from the performance agreement and the annual work programme.

In so far as the contract is concerned, the project manager follows the department’s guidelines and contacts the department secretariat about these guidelines, see section 6.2.1 above. Based on a description of the assignment, the project manager must help clarify which contract format to use, and which questions the contract must handle. The project manager must establish whether all legal issues have been clarified both with UCPH and with the client/ordering authority before the department sends out the contract for signing by the client/ordering authority and by the head of department.

The project description must be based on the department’s project description template, see section 6.2.4, and the project manager ensures that the project description lives up to the quality requirements. The project manager decides whether to involve colleagues in the development and
quality assurance of the project description, and the project description is discussed with the client/ordering authority so as to ensure transparency and a sense of ownership. The project manager must comply with the rules on good scientific practice and ensure freedom of choice of methodologies and approaches of relevance to the specific consultancy to be provided.

In cooperation with the department, the project manager ensures that the contract, the project description and the written correspondence with the client/ordering authority on these matters are documented/filed and that a journal number is assigned to ensure that all agreements, amendments and clarifications agreed by the parties can be retrieved, see section 8.6 on the keeping of records.

6.3.2 Balance between resources and tasks

A key element in both the contract and the project description is the clarification of the financial resources and the academic expertise on which the research-based consultancy will draw. During the dialogue with the client/ordering authority, the project manager – together with the head of department or his representative – assesses the relationship between the content of the services to be provided and the financial and academic resources available. The academic resources include the researchers involved, access to data and access to laboratories and other relevant infrastructure. Sometimes, some resources are made available by the client/ordering authority. It is important to carefully align the expectations of the project participants with those of the client/ordering authority as regards the content and form of the project on the one hand, and the financial and academic resources allocated to the project on the other hand. This is important from the point of view of ensuring that the client/ordering authority is happy, while also drawing the researchers’ attention to the importance of delivering their services within the given framework.

The project manager agrees with the head of department which other researchers to involve in the work and which resources as well as who should carry out the peer review. The project manager ensures that all project participants are in agreement about the project description and what is expected of them prior to the start of the project. The project manager contacts the department’s project finance administrators to arrange for the project to be created in the financial management system with the necessary aliases, and for the various researchers to be affiliated with the project etc.

6.3.3 Good academic practice

The research-based consultancy provided must as a minimum meet UCPH’s rules on good scientific practice, including in collaboration with external parties, such as government agencies and
institutions, and compliance with the relevant code must be ensured. Each individual project participant is responsible for ensuring this, while the project manager is responsible for offering the necessary support. Reference is made to:

- UCPH’s rules and guidelines on good scientific practice
- University of Copenhagen’s code of good scientific practice in research collaborations with external parties
- Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening 2009 (Universities Denmark’s White Paper on research-based public sector services 2009) (only in Danish)
- UCPH’s Code for public-sector services

This means, among other things, that the project manager must pay attention to the rules on authorship (known as the Vancouver declaration) and make sure that only those who meet the authorship requirements are attributed as authors.

This also means that the project participants must carefully describe and document their work and keep safe and store all data, analyses, samples, topics, programmes etc. in a way which ensures that they are available for verification and checking within the framework of the Danish Access to Public Administration Files Act (only in Danish). This reflects the research practice requirement for transparency about the basis of the results and their reproducibility.

The project manager is generally responsible for finding and informing the peer reviewers of the consultancy work in due time, and for ensuring that they are allowed sufficient time. The project manager must ensure that any comments from the peer review are reflected in a true and fair manner in the deliverables. In the case of disagreement between the project manager/participants and the peer reviewer(s) on elements of the work, the project manager must initiate a dialogue, possibly with support from his or her immediate manager. If the disagreements cannot be resolved, the project manager must ensure that the reporting on the deliverables makes clear the crux and the nature of such disagreements, see section 6.2.6. Comments and dialogue with peer reviewer(s) must be documented and filed together with the other work performed.

It is not unusual for general academic debates to develop and for disagreements to exist within a particular academic field, e.g. disagreements concerning choice of methods, analysis techniques and other things in specific contexts. As a general rule, such differences of opinion must be highlighted if choices have been made which have a bearing on the results, and which are academically
debateable. This is normal practice in connection with the publication of peer-reviewed research, and also applies here.

6.3.4 Specifically about ad hoc opinions and brief memoranda

Under long-term framework agreements (see explanation in section 2), resources may have been allocated to allow the client/ordering authority, often a ministry, to ask for ad hoc opinions or brief memoranda. Such ministerial requests may take the form of an email or a telephone call during which the researcher is asked, at the top of his head, to assess whether a statement or wordings used by a minister are solidly founded from an academic point of view. In such cases, it is not necessary or possible to comply with the standards on project description, peer reviewing etc. In connection with this type of ad hoc consultancy, researchers vouch solely for the quality of such statements and assessments and must, of course, make the necessary reservations. Researchers may refuse to answer or assess questions to which no sensible answer can be provided on the given terms. Similarly, clients/ordering authorities who draw on this type of consultancy must accept that the quality assurance of such ad hoc consultancy is founded on the researcher’s integrity, and that any statements made or advice provided in this fashion come with all the reservations dictated by the situation.

Ad hoc tasks also include minor tasks, brief memoranda etc. which can be delivered within a few hours, a few days or within a week or two. In such situations, the project description often consists of only a few lines, but may – technically speaking – still comply with the standard described above. Where logistically possible, a peer review may be arranged, but in urgent cases, this may be omitted, provided that a reservation is made.

6.3.5 Good practice in dialogue and other external relations

The project manager is responsible for the ongoing dialogue with the client/ordering authority, and the framework for this dialogue should be described in the project description, including reference group meetings etc. The dialogue is often oral, but the project manager is obliged to document all central aspects of the dialogue, e.g. when important contributions are made, or when the dialogue results in decisions which have an important bearing on the project. If, during the dialogue, an agreement is reached to change the project, e.g. because of new opportunities opening up, or because of other opportunities proving unrealisable, the project manager must make a note of the background for such changes in writing, and inform the other participants and the client/ordering authority about this. This written material must be filed together with the deliverables.
In connection with some consultancy tasks, researchers or clients/ordering authorities have a desire to draw on the knowledge of or obtain assessments from other experts or stakeholders. Again, this should be set out in the project description, in so far as is possible. Similarly, if a decision to draw on such third parties is made during the project period, the project manager must make a note about this and document any contributions etc. which have a bearing on the project.

The project manager must carefully observe and ensure independence (‘arm’s length’) in this part of the work. This also means that project managers and other researchers involved must ensure that decisions are made with full integrity at all times. It is not unusual for clients/ordering authorities to raise questions, make suggestions and comments or contribute knowledge which can benefit and improve the work and the deliverables. This must be documented, and it must always be mentioned in the deliverables, e.g. in the preface to the report. This also applies if comments etc. are obtained from third parties, e.g. from stakeholders, as part of the work. Dialogues of this nature must be documented and filed, and it must appear from the deliverables, e.g. from the preface of the report, that the dialogues have taken place.

6.3.6 Project manager assures quality prior to publication

As the work nears completion, the project manager must ensure that it is completed in accordance with the contract, project description, any subsequent documented agreements as well as the department’s procedures on, e.g., report series (see section 6.2.7).

When the deliverables are deemed ready for peer review, the project manager ensures that the client/ordering authority is in agreement about this and has been given an opportunity to assess and comment on the deliverables up until this point in time. A peer review is then arranged. If the peer review gives rise to significant changes, the client/ordering authority must be informed and possibly invited to comment prior to final completion.

The deliverables can then be released for final publication, and the project manager ensures that the client/ordering authority is notified well in advance of publication. Sometimes, the client/ordering authority or a third party is in charge of publication, but this is usually handled by the department.

No matter who is in charge of publication, the project manager is responsible for ensuring that the deliverables meet the formal quality requirement (see section 6.2.7). Documentation to this effect must be provided to the department, e.g. the head of section or the communication professionals who are involved in the publication.
6.3.7 Subsequent communication and PR
The researchers themselves are responsible for the content of a consultancy service, and they are therefore usually also involved in any subsequent communication about the service provided. As a general rule, the researchers are allowed quite a free hand in such communication, but it is recommended that project managers follow the department’s guidelines for external communication in connection with consultancy services (see section 6.2.8) and, for example asking for support from communications staff at the department, their immediate superior etc. Press releases and other forms of communication may be agreed with the client/ordering authority, but this is not a requirement as such. However, it is recommended that the client/ordering authority be informed prior to any communication activities as general awareness of the consultancy provided etc. can lead to enquiries to the client/ordering authority also.

6.4 Implementation by peer reviewer
All written and similar services must generally be subject to a peer review of the content and purpose of the work as described in the project description as well as the minimum standards for the academic work outlined in this document.

The peer reviewer should be approached as soon as possible, i.e. once the project description is ready. Peer reviewers must set aside time to carry out the agreed peer review within a reasonable time frame, as agreed. In connection with their review, peer reviewers must take the department’s guidelines on peer reviews into consideration, see section 6.2.6. This means applying the arm’s-length principle in connection with the review of the deliverables. The peer review must result in academically founded and objective criticism of the content of the deliverables, the methods applied, the conclusions drawn etc., considering also the requirements set out in the project description and the contractual basis, including the available resources.

The peer reviewer submits recommendations, suggested changes etc. to the project manager, and the peer reviewer is available for dialogue in case of follow-up questions or if dialogue is needed about the suggested changes etc.

7. Learning and improvements
The interaction between the University and its external cooperation partners is dynamic. The forms of collaboration, the parties’ wishes and requirements change over time. It must be possible for the
research-based consultancy services to develop and adapt to these changes, as must the quality assurance system. Therefore, the University engages in systematic processes aimed at ensuring the gathering of experience, learning and improvements to consultancy practices and the quality assurance system. As described in chapter 5, the deans and the heads of department are responsible for different elements, which are then combined.

The work involved in gathering experience and learning, sharing input and incorporating ideas for improvements to consultancy practices and the workings of the quality assurance system is carried out systematically in a number of steps in the course of the year, and it starts and ends with the experience gained by the academic environments and their clients/ordering authorities:

The **head of department** must ensure the gathering at least once a year, possibly every six months, of any experience with and reflections on the research-based consultancy services provided, see section 6.2.9.

The gathering of experience must cover at least the following topics:  

i) experience with the elements of the quality assurance system and associated guidelines and procedures, ii) experience with the actual consultancy practices, such as dialogue and cooperation with clients/ordering authorities, dialogue with other stakeholders, cooperation with external parties, iii) experience with the alignment of expectations with client/ordering authority and the balancing of expectations and the time and resources available for the project as well as the quality assurance system, iv) experience with publication and any project-related communication and PR.

At departments involved in sufficient volumes of research-based consultancy, feedback is collected through sampling of feedback from the clients/ordering authorities receiving the consultancy. Such feedback may relate, e.g., to the process of aligning expectations and adapting the project description and ambitions to the resources and time available. It may relate to the interaction and dialogue with the client/ordering authority during the consultancy project, as well as the progress of the work and compliance with deadlines etc. Finally, the feedback may relate to the final content of the consultancy delivered and its dissemination and use.

The department summarises the lessons learned in a short memorandum, highlighting important experience gained and, if relevant, any changes in practice and/or the quality assurance system which are being suggested or considered or which may have been implemented. The memorandum must be sent to the dean, see section 6.1.1, before an agreed deadline.
The Dean collects memoranda on the experience gained from the various departments and on this basis prepares an agenda for the annual meeting about research-based consultancy. The meeting is attended by the relevant heads of department and deans, see section 6.1.1.

At the annual meeting, the dean carries out an overall evaluation based on the input from the academic environments, while also touching upon including previous evaluations. Learning points and experience of general relevance are summarised, and suggestions for improvements to practice, internal knowledge sharing and the quality assurance system are formulated. Specific initiatives are decided, and those responsible for implementing them are appointed.

Following the annual meeting, the dean’s office and the departments implement the agreed initiatives in the organisation, and the head of department ensures that the researchers are aware of them and are able to access information about the common learning points identified.

7.1 Internal audits

It is possible for the University to conduct periodical audits to ascertain whether the quality assurance system for research-based consultancy has been implemented at the departments, and whether the research-based consultancy practices reflect this. Such internal audits can be carried out by evaluating the following points:

- Have the departments implemented the various elements of the quality assurance system to the extent relevant for the individual departments? See the head of department’s checklist in section 6.2.11.
- What experience has been gained over the years, see the annual memoranda on this, and have any changes and improvements been implemented as agreed?
- Services (e.g. reports or memoranda), contracts and project descriptions may be sampled for evaluation as regards formalities and formal requirements.

8. Support functions and processes

The overall processes involved in providing consultancy are supported by all the University’s administrative support functions. These functions support research, teaching activities, communication and also research-based consultancy tasks, see illustration in Figure 2. The following sections describe the points that are deemed to be of particular relevance to this document.
8.1 Legislation
The University of Copenhagen (UCPH) is part of the public administration in Denmark and its activities are therefore subject to various sets of rules (e.g. the Danish University Act, the Danish Public Administration Act and the Danish Act on Inventions at Public Research Institutions). When entering into cooperation agreements with external parties, it is ensured that account is taken of these rules, either by consulting the University of Copenhagen’s Tech Transfer Office or the faculties’ in-house legal advisers in cooperation with the departments.

Reference is made to:
- Overview of cooperation agreements on the Research Portal at KUnet
- The University of Copenhagen’s general principles for cooperation agreements Research Portal
- The University of Copenhagen’s general principles for cooperation with external parties. A practical guide for the University’s researchers. Research Portal
- The Tech Transfer Office
- SCIENCE Procedure for entering into agreements with external partners

8.2 HR
HR-UCPH’s job categories and competency profiles form the basis for the allocation of research depth to the services and the management thereof. The career development of individual employees is achieved using the HR tools available, through dialogue and in connection with the PDR review between manager and employee.

Reference is made to:
- Job structure for academic staff at universities

8.3 UCPH-IT
The University of Copenhagen’s IT department (UCPH-IT) is responsible for ensuring that IT systems are implemented, maintained and secure, and UCPH-IT is also responsible for data protection and backup.

Reference is made to UCPH-IT’s policies and procedures for secure IT operations:
- IT security Employee guide
- Information security
8.4 Procurement
The University of Copenhagen is obliged to ensure that procurement in connection with research-based consultancy services complies with the Danish Public Procurement Act, which implements the rules set out the EU procurement directive from 2014 as well as other provisions on public procurement.

Reference is made to:

- University of Copenhagen Purchasing Policy. Finance (only in Danish)
- Management Model for University of Copenhagen’s Purchasing Policy. Finance (only in Danish)

8.5 Financial management
As regards the management of externally financed projects, the University of Copenhagen is subject to a number of statutory provisions and requirements for follow-up and documentation. The financial management of cooperation agreements on research-based consultancy services is primarily in the hands of the departments, where project finance administrators monitor and report on finances in collaboration with project managers. The guidelines are followed for managing externally financed projects either as ‘commercial activities’ (DR30), ‘grant-funded research’ (DR50 and DR60) or, in the case of framework agreements, ‘general activities’ (DR10). The department’s finance function supports the dialogue with the Faculty’s accounting people and the Central Administration’s payroll section concerning specific consultancy services.

Reference is made to:

- Funding administration on the Research Portal
- Summary page for external activities. Finance (only in danish)
- Procedure for the management of externally funded projects. Finance (only in Danish)
- Procedure for the management of externally funded projects (DR50 and DR60). Finance (only in Danish)
- Guidelines for commercial activities (DR 30). Finance (only in Danish)
- Guidelines for use in connection with external activities. SCIENCE
8.6 Document structure and management

Pursuant to the Danish Access to Public Administration Files Act (only in Danish), the University of Copenhagen (UCPH) is obliged to file documents received or sent in connection with UCPH’s activities, and which are of importance to a case or the administrative procedures surrounding a case in general. In order to ensure transparency and traceability of research results, contracts and reports, important documents, including agreements and the results of consultancy services provided, must be filed systematically. This applies both to documents (paper and electronic formats) and to incoming and outgoing mail. The journal system WorkZone is used for this purpose. The filing is based on guidelines for filing and archiving at the University of Copenhagen with underlying hierarchical filing plan with text for the period 2013-2017 (2018), which includes filing codes.

Reference is made to:

- Overview of rules and guidelines on filing (only in Danish)
Acts and executive orders
The Danish University Act (Universitetsloven) Executive Order no. 172 of 27/02/2018.
https://www.retsinformation.dk/Forms/R0710.aspx?id=198434

The Danish Public Administration Act (Forvaltningsloven). Executive Order no. 433 of 22/04/2014.
https://www.retsinformation.dk/forms/r0710.aspx?id=161411 (only in Danish)

The Danish Data Protection Act (Databeskyttelsesloven). Act no. 502 of 23/05/2018.

Danish Access to Public Administration Files Act (Lov om offentlighed i forvaltningen) Act no. 606 of 12/06/2013.
https://www.retsinformation.dk/Forms/R0710.aspx?id=152299 (only in Danish)

Danish Ministry of Higher Education and Science
Forskningsbaseret myndighedsbetjening (Research-based public-sector services). Danish Ministry of Higher Education and Science.


Job Structure for Academic Staff at Universities Danish Ministry of Higher Education and Science. 2018.

Other
Appendices

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Appendix 1: Template for project description for research-based consultancy

A project description must contain the following elements. There are no specific requirements to be met as regards the length of the project description, and the order of the various elements of the description may also vary. Always bear in mind that there is a reason why these items must be included. Firstly, to ensure clarity (for the University and the client/ordering authority) about the exact work to be done, the intended approach, and the organisation, completion and delivery of the work. Secondly, to ensure transparency and the existence in written form of the agreements made about the work, so that the University, the client/ordering authority and the outside world can ensure arm’s-length approach and credibility.

Project title and journal number:

Statement of purpose and scope
[A concise description of purpose and scope.]

Methodology, data etc.
[A description of the approach adopted (review, analysis of, e.g. existing data/new data, modelling etc.), underlying data and any other aspects which are key to understanding how the researchers intend to go about the work.]

Work process
[A description of the work process and a timetable for the work. A description of the agreed dialogue process with the client/ordering authority. A description of the plan for any part deliveries. If an agreement is made to involve or consult possible stakeholders about the project or the project results, it must appear from the description how this is done and with what focus.]

Organisation
[A description of who is project manager and any other project participants as well as the resources allocated (man-months, financial resources and in some cases access to third-party data or equipment). If the task is a contribution towards a larger project to which a number of departments or universities are contributing, this must appear from the project description, including any special requirements following from this. If a steering committee or reference group is appointed, this must appear from the project description or contract, including the group’s powers and role. The project description must name the person who will be acting as peer reviewer of the work, subject to agreement.]

Delivery and publication
[Consultancy work must always be made public once the work has been completed (and always concurrently with delivery to a third party at the latest), and within a reasonable time frame (e.g. up to one week, see section 5.2.2., except where special circumstances legitimise delaying publication). A reporting plan must be described, setting out the agreed format (memorandum, report etc.) and timing of (part) deliveries and the agreed language. The time of publication must be agreed either as a specific date and/or based on degree of completion, and it must be agreed who is responsible for publication.]
Subsequent revisions
[In connection with large projects, plans may change, as may the choice of method(s) or data or collaborative constellations. Such changes may lead to changes to the expected date of publication. Any changes must be documented briefly in writing in a memorandum, and the client/ordering authority must be informed. Save/file such memoranda together with the contract and project description.]

Appendices
[The project description is often appended to the contract.

A detailed budget is often enclosed as a separate appendix to the contract.]
Appendix 2: Guidelines for peer reviewers

If you have agreed to act as a peer reviewer of research-based consultancy work, you must conduct the review in view of the guidelines set out below. If in doubt, you can ask the head of department or his representative or possibly the project manager to clarify.

Agreement and time
As a peer reviewer, you should be contacted once the project description for the work which you are due to review has been finalised. By entering into an agreement on a peer review, you undertake to set aside time to carry out the agreed peer review within a reasonable time frame, as agreed. You are not expected to start the peer review until the project manager sends you the final product.

Transparency of review
It is important that the peer review is conducted in a transparent manner and in written form. This means that you must make your comments in writing and that you will be named as the peer reviewer. For example, it may be stated in the report that ‘Peer-reviewed by [NN]. The content of the publication is the sole responsibility of the author(s)’.

Review format
Due to the transparency requirement, your comments on the work must be made available and in writing. It is a good idea to insert your comments in a separate document, but the written form of the peer review can also take the form of annotated versions of the documents.

Arm’s length
In connection with peer reviews, account must be taken of standards for arm’s length and independence between peer reviewer’s work and the work under review. This means that you must not be involved in meetings at which decisions of importance to the execution of the work are made, nor may you be a member of reference groups or be involved as a project participant.

Basis for and content of peer review
As a basis for your peer review, you must be given access to all parts of the work as well as the project description, budget etc. Your review of and commenting on the work must be based on the requirements set out in the project description and the contractual basis, including the available resources. On this basis, your role as peer reviewer is to provide research-based and objective criticism of the content of the work, the methods applied, the conclusions drawn etc. This includes drawing attention to any reservations you think should be made and to whether reference should be made to any opposing scientific views of relevance to the work.

Delivery of peer review
Once you have completed your peer review, you must submit your recommendations, proposed amendments etc. to the project manager. You must be prepared for and willing to engage in a dialogue in case of follow-up questions or if dialogue is needed about the suggested changes etc.

In case of disagreement
In case of disagreement between you and the authors about key academic interpretations, amendments and standards, you can contact the head of department or his representative in the area, who will assume responsibility for clarifying the disagreements, possibly through the involvement of additional peer reviewers, if appropriate.
Appendix 3: Template for preparation and checklist prior to publication of research-based consultancy

Prior to the publication of the deliverables, the following information must be provided:

Information about deliverables

Project title:
Project manager:
Author(s):
client/ordering authority:
Agreed delivery date:
Approximate scope:
Publication by (department or client/ordering authority):
Agreed (earliest) publication date:
How long before publication must the client/ordering authority be notified?:

Checklist (yes/no)

Has the client/ordering authority been notified (in time) of the publication?
Has information about the client/ordering authority, project financing and the context in which the project is undertaken been clearly displayed (in the colophon and/or preface)?
Has information about the peer reviewer, about the dialogue process with the client/ordering authority (which by this stage must have been concluded, e.g. has a reference group been appointed etc.) and any third-party contributions been described (in the Colophon and/or preface)?
Have all the authors been included, have they approved the latest version, and are they aware that publication is taking place?
Is additional communication needed, and if so, have the department’s communications staff been contacted?

Completed (date) by:

The document must be filed with the job and sent to the department’s publishing unit.
Appendix 4: Template for colophons in publications of research-based consultancy services

It is recommended that colophons in publications of research-based consultancy services include the following elements:

**Series and number**

**Title**

*Title of the publication*

**Author(s) and affiliation**

**Academic quality assurance**

*Name the peer reviewer(s). By accepting the task, the peer reviewer also accepts being named as a reviewer in the report to ensure transparency. A wording like this may be used: ’Peer-reviewed by [NN]. The content of the publication is the sole responsibility of the author(s)’.*

**Date of publication (month and year)**

**ISBN and/or ISSN, if relevant**

**Details about client/ordering authority and other aspects etc.**

*State the name of the client/ordering authority, and in connection with large projects involving several publications or joint projects to which several different parties are contributing, state who has done what and where other publications concerning the project can be found (if possible).*

**Reference to other publications in the series, if relevant**

**Address/printer**

*E.g. the department’s main address*