

# Manual for quality assurance of researchbased consultancy

at

Faculty of Health and Medical Sciences (SUND) and

Faculty of Science (SCIENCE)

# **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 for 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 the 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.

The manual is updated annually. This is the fourth edition.

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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 fourth edition of the manual (July 2023). The manual is updated annually based on internal audits and user experience.

The overriding purpose of the manual is to ensure that the research-based consultancy services provided comply with the University of Copenhagen's <u>quality policy</u>, 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 <u>contract documents</u> and in the requirements to be met by the <u>project description</u>. Special rules apply in the case of <u>ad hoc opinions and brief memoranda</u>.

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 <u>resources</u>.

All consultancy services and written products are routinely made public, and similarly, publishable research results from a research collaboration must be made available for publication, save in exceptional circumstances. Read more in <u>section 5.2.2</u> and in the University of Copenhagen's <u>Code of Conduct for Responsible Research</u>.

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
- Conducting an annual review of the policy and procedures
- Ensuring 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 complies with the quality assurance system 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. Section 6 describes in detail the tasks which deans, heads of department and project managers are responsible for in practice, including the actions to be taken. 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 relevant administrative

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support functions at the University of Copenhagen in relation to the provision of 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<sup>1</sup>. The Faculty of Science (SCIENCE) 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 a strong commitment to providing research-based consultancy services.

In order to support this development, SCIENCE 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.

The quality assurance system builds on and is integrated with UCPH's practices, procedures and rules regarding good scientific practice, financial management, communication etc.

<sup>&</sup>lt;sup>1</sup> <u>Talent and collaboration – Strategy 2023</u>

# 2. Definitions

A presentation is given here of key definitions in the field of research-based consultancy services for government agencies and institutions and private parties<sup>2</sup>.

# 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.

#### 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.

## 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.

<u>Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening 2009 (Universities Denmark's white paper on research-based public-sector services 2009)</u>

Code of Conduct for Responsible Research

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

Principper og anbefalinger for forskningsbaseret samarbejde og rådgivning 2021 (Principles and recommendations for research-based collaboration and consultancy 2021)

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<sup>&</sup>lt;sup>2</sup> References:

**Elaboration**: The term 'research-based public-sector services' 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 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.

# 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, statement etc.) supplied by the researcher to the client/ordering authority in exchange for consideration (typically payment) based on a written agreement.

**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 must generally be based on written agreements with a project description.

## Framework agreement

**Brief definition**: A long-term agreement, a contract, between a university and most often 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 research-based consultancy to the requesting party, most often 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.

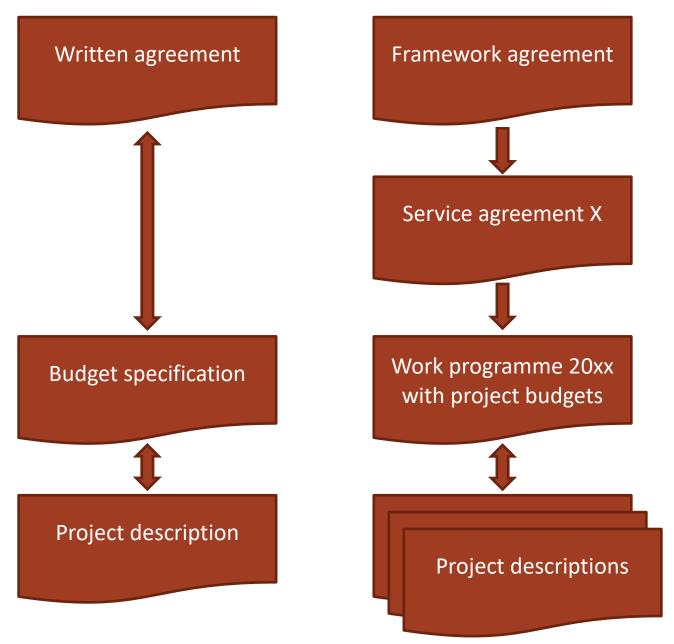


Figure 1 Illustration of the relationships between the various documents for individual research-based activities under individual written agreements (left-hand column) and for research-based public-sector services undertaken under existing framework agreements (right-hand column). Please note that a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

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# 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 <u>Strategy 2023</u>).

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

The University of Copenhagen (UCPH) follows Universities Denmark's Principles and recommendations for research-based collaboration and consultancy (2021) and *Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening (2009)* (Universities Denmark's white paper on research-based public-sector services (2009)), which are both based on fundamental principles of 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 <u>Code of Conduct for Responsible Research</u>, 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 a written 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 in areas of research interest. The tasks may manifest themselves in many different ways such as monitoring, risk assessment and warning tasks, development of software and digital tools and routines such as 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 Transfer 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.

#### Scope

The contractual basis of all research collaborations and research-based consultancy tasks carried out at the University of Copenhagen must take the form of a written agreement. Therefore, this quality assurance manual only covers tasks provided on the basis of a written agreement made with an external client/ordering authority.

Quality assurance of teaching activities and research in general is not covered by this quality assurance manual. Please refer instead to the <u>Danish Code of Conduct for Research Integrity</u> and <u>University of Copenhagen's Code of Conduct for Responsible Research (2023)</u>. See also the course <u>RCR – Responsible Conduct of Research</u> for further details. The research-based consultancy is thus based on research which meets these recognised standards for good research.

The work associated with and statements provided in connection with University of Copenhagen employees being appointed to boards, councils and committees are generally not covered by the standard procedures laid down in the quality assurance manual. However, in exceptional cases appointments may be linked to a cooperation agreement with a client/ordering authority (e.g. as part of a framework agreement). Appointments may give rise to (suspected) conflicts of interest and should therefore appear from the researcher's CV/researcher profile online.

Furthermore, UCPH offers a number of standardised services such as routine analyses and clinical services (often also referred to as 'income-generating activities without contract'), with these services typically being provided on the basis of a price list. Special technical quality standards are often associated with these types of tasks. As a general rule, these services are not covered by the standard procedures laid down in the quality assurance manual, but by the technical quality standards.

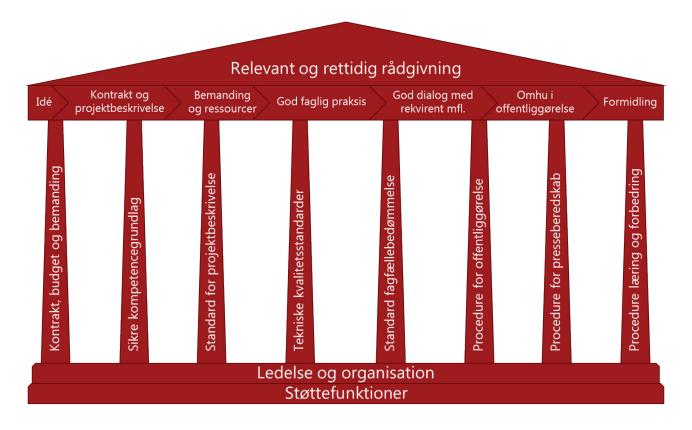


Figure 2 Illustration of the elements involved in the quality assurance and quality management of a service, see section 3.3.

# 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 <u>Code of Conduct for Responsible Research (2023)</u>. 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 <u>Danish University Act</u> and the <u>Statutes of the University of Copenhagen</u> 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, for example, 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 the quality assurance system

Anyone providing research-based consultancy or contributing to the management of research-based consultancy must ensure that the consultancy complies with the quality policy (see section 4). The

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division of responsibilities and management in the quality assurance system which are to ensure this are described here.

#### 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; see Appendix 7: Form for the dean's annual audit
- 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 as implemented and organised at the department, including this document. This implies to discuss and consider which types of tasks typically will be covered by this quality assurance system at the department. Appendix 8 may be used as a source of inspiration for a department-specific leaflet, and Appendix 9 as a quick reference list for researchers/project managers.
- Ensuring that all research-based consultancy services are based on a written agreement prepared in accordance with the guidelines described in this quality assurance manual.
- 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 known and available to the department's employees and complied with in the department's practices 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<sup>3</sup>. In exceptional cases, special conditions may legitimise delaying publication or limited publication, e.g. if the work is covered by legislation which prescribes the observance of confidentiality for a specified period or which prescribes general confidentiality. Reasons for delaying publication or limited publication must be provided and documented.
- Ensuring that the department's procedure for communication and PR supports the consultancy.
- Safeguarding procedures for gathering of experience and learning at the department in collaboration with the faculty; see <u>Appendix 5: Form for project-level audit and Appendix 6:</u> Form for the department's self-evaluation.
- Ensuring transparency in respect of the delegation of responsibility and support functions in the field of consultancy.

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<sup>&</sup>lt;sup>3</sup> 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.

#### 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 University, including the quality assurance procedures and guidelines set out in this manual. 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 of the dialogue and ensuring transparency about it
- 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 assuming 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.

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# 6. Roles and tasks within the quality assurance system

The quality assurance system supports the 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 Dean's responsibilities and tasks

The dean's responsibilities are centred around the quality assurance system in general and its implementation. The dean discharges these responsibilities as described 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 relevant meetings. This is done in collaboration with relevant dean colleagues and with the participation of relevant heads of department. At these meetings, 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 meetings is the annual reporting from the departments, see section 6.2.9. A template for the annual feedback is prepared and continuously improved. The meetings are 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 the version number is clearly stated in the document to ensure that everyone uses the latest version.

#### 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, for example, of handling any risks or potentially improving the communication about the faculty's role in society in the area.

# 6.2 Head of department's responsibilities and tasks

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 and UCPH's other procedures and policies as well as the department's relevant technical quality standards.

#### 6.2.1 Contractual basis

The provision of research-based consultancy must be based on a written agreement 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 agreements in the relevant form. This can be done by ensuring that information about the department's procedures for concluding agreements on research-based consultancy is made available on the departmental intranet, and by appointing administrative contacts.

The department's procedures must respect the general procedures for the area at UCPH and ensure the necessary legal checking of the agreements. It is a good idea to base agreements on the existing UCPH contract templates. 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.

Legal checks are performed by the Tech Transfer Office, which is responsible for negotiating various forms of cooperation agreements between the University and external parties. If an agreement does not contain provisions on ownership and agreements on intellectual property rights, the legal check is performed by the faculty's in-house legal adviser.

UCPH's overall guidelines on cooperation agreements and contracts can be seen here:

• Overview of cooperation agreements on the 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 agreements 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 agreements 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 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 the 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. As a general rule, agreements must therefore always ensure that indirect costs are covered through the addition of 180% overheads. However, in the case of a monopoly, overheads may be lower, e.g. 44%, see UCPH's guidelines for commercial activities (DR30).

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 <u>Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening</u> (Universities Denmark's white paper on research-based public-sector services). 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 can base the budgeting of external projects on 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. Reference is also made to section 8.5 on financial management.

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/ordering authority 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 and maintaining 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.

When new employees are appointed, the head of department is responsible for ensuring that they are introduced to this quality assurance manual. In cases where new employees are involved in providing research-based consultancy, competency development must be 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. In the event of other legal circumstances, e.g. duties of confidentiality, which entail that a service cannot be made public in its entirety, it is the responsibility of the head of department to ensure transparency about the work having been performed, for example by publishing as a minimum the title or the name of the client/ordering authority as well as the project type.

The head of department supports the preparation of the project description by providing guidance on requirements for and the value of the project description, e.g. by making this document available on the intranet, including a <u>project description template for research-based consultancy services</u>

(Appendix 1). Finally, it is recommended asking colleagues to comment on the focus of the project description, choice of methodology etc.

## 6.2.5 Consultancy activities with 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 known by and available to the department's employees and implemented in the department's practices 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, for example, 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 reviewers' 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. In the event of other legal circumstances, e.g. duties of confidentiality, which entail that a service cannot be made public in its entirety, it is the responsibility of the head of department to ensure transparency about the work having been performed and that the reason for the limited publication is provided and documented. 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 declared.
- 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 for example 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.

It is the responsibility of the head of department to ensure that procedures are prepared to document the key criteria above. Inspiration can be found in the template for preparation and 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, depending on the situation, possibly involve the faculty's and the University's other management and 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 elements 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, the department collects feedback on the consultancy from the client/ordering authority on an ongoing basis through sample audits and/or through systematic dialogue with the client/ordering authority. This can be done at meetings, by way of short questionnaires or interviews. The focus here is on evaluating the process of the initial alignment of expectations, the preparation of the project description, the parties' dialogue and alignment of expectations during the project period, the progress 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 connection with permanent contracts.

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 agreements, 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 any supplementary technical quality standards for consultancy activities within the department's academic fields, 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 and by applying the suggested minimum procedures and templates as needed. 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. However, it is important to discuss and consider which types of tasks typically will be covered by the quality assurance system, so that this is clear to the employees.

- For departments where research-based consultancy constitutes a major activity, department-specific versions of selected documents and procedures must be prepared, always considering the minimum requirements imposed by the quality assurance system.
- All departments involved in research-based consultancy activities 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 to the scope of the consultancy activities
  engaged in.

# 6.3 Project manager's responsibilities and tasks

Project managers draw on and utilise 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 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.



Figure 3 Elements in research-based consultancy practice. Described in detail in sections 6.3.1-6.3.7.

## 6.3.1 Project manager is responsible for contractual basis 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

or other written contractual basis 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 agreement 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 agreement format to use, and which questions the agreement must cover. The project manager must establish whether all legal issues have been clarified both with UCPH (via the Tech Transfer Office, see section 6.2.1) and with the client/ordering authority before the department sends out the agreement 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 agreement, 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, for example in connection with documentation in the form of access to documents. See section 8.6 on the keeping of records.

## 6.3.2 Balance between resources and tasks

A key element in both the written agreement 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 ensuring that the project participants are aware of this responsibility. Reference is made to:

- UCPH's Code of Conduct for Responsible Research
- <u>University of Copenhagen's code of good scientific practice in research collaborations with</u> external parties
- Danske Universiteters Hvidbog om forskningsbaseret myndighedsbetjening (Universities Denmark's white paper on research-based public-sector services)
- Overview of data processing, including GDPR, on the Research Portal at KUnet

This means, among other things, that the project manager must pay attention to the rules on <a href="authorship"><u>authorship</u></a> (known as the <u>Vancouver declaration</u>) 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

<u>Public Administration Files Act</u> and the <u>Danish Environmental Information Act</u>. This reflects requirements for access to documents and the research practice requirement for transparency about the basis of the results and their reproducibility.

Moreover, both the project manager and the individual researcher are responsible for ensuring transparency about potential conflicts of interest in relation to the researchers' other activities and collaborations, including any sideline occupation. This can be done by indicating potential conflicts of interest in CURIS, so that this appears from the researcher's public web profile, see section 3.6 of the University of Copenhagen's Code of Conduct for Responsible Research.

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 debatable. 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

From time to time, researchers are asked to provide ad hoc opinions or brief memoranda at short notice, for example in connection with a specific, typically topical, case or in connection with ongoing collaboration. Under long-term framework agreements (see explanation in section 2), resources may for example 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

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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 declared 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. It is recommended that only PDF versions be submitted for commenting to the client/ordering authority or other stakeholders. It is a good idea to structure the commenting, and this can be based on the template for commenting on draft reports in Appendix 10.

#### Reference is made to:

• University of Copenhagen's Code of Conduct for Responsible Research

## 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 agreement, project description, any subsequent documented agreements as well as the department's procedures on, for example, 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. In the case of disagreement between the project manager/participants and the client/ordering authority on elements of the deliverable which, for example, compromise the researcher's academic freedom, arm's length or any other type of pressure, the project manager must initiate a dialogue, possibly with support from his or her immediate manager, who must be informed. 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, ask for support from communications staff at the department, their immediate manager 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 Peer reviewer's responsibilities and tasks

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.

Departments involved in sufficient volumes of research-based consultancy collect feedback on the consultancy from the client/ordering authority on an ongoing basis through sample audits and/or through systematic dialogue with the client/ordering authority. Such feedback may relate, for example, 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 associate deans/vice-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 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:

- Do the departments actively use the various elements of the quality assurance system? 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), agreements 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 and general principles for cooperation agreements on the Research Portal at KUnet
- The University of Copenhagen's Code of Conduct for Responsible Research
- The Tech Transfer Office

#### 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 in the EU procurement directive from 2014 as well as other provisions on public procurement.

#### Reference is made to:

- University of Copenhagen Purchasing Policy
- Management Model for University of Copenhagen's Purchasing Policy

# 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
- Procedure for the management of externally funded projects (DR50 and DR60) and commercial activities (DR30)
- Summary page for external activities

# 8.6 Document structure and management: Keeping of records and transparency

Pursuant to the Danish Access to Public Administration Files Act, 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, agreements/contracts and reports, important documents, including agreements and the results of consultancy services provided, must

be filed systematically. In addition, this is relevant in connection with cases concerning access to documents. 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 on filing and archiving at the University of Copenhagen with an underlying hierarchical filing plan with text for the period 2020-2024, which includes filing codes.

## Reference is made to:

• Overview of rules and guidelines on filing

# **Appendices**

# List of appendices

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

Appendix 2: Guidelines for peer reviewers

Appendix 3: Template for preparation and checklist prior to publication of research-based consultancy

Appendix 4: Template for colophons in publications of research-based consultancy services

Appendix 5: Form for project-level audit

Appendix 6: Form for the department's self-evaluation

Appendix 7: Form for the dean's annual audit

Appendix 8: Staff leaflet – for inspiration

Appendix 9: Quick reference – Project manager's responsibility in quality-assuring research-based consultancy

Appendix 10: Template for commenting on draft delivery of research-based consultancy at the University of Copenhagen

# 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, for example, 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. If legal circumstances entail that consultancy work cannot be made public in its entirety, what will be made public and how it will be made public that the work has been performed must be described here, see section 6.2.7.

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 time 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 agreement/contract and project description.]

# **Appendices**

[The project description is often appended to the agreement/contract.

A detailed budget is often enclosed as a separate appendix to the contract.]

Version 4, July 2023

# 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**

<b>D</b>		1	
Pro	iect.	title:	
110	CCL	uuc.	
	,		

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 declared (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 declared (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

Colophons in publications of research-based consultancy services must contain the following elements:

# Series and number, if any

#### 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

## Declaration of 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

Appendix 5: Form for project-level audit

Requirements	Compliance –	Audit team's comments *
(All references to sections refer to the 'Manual for	'proven'	
quality assurance of research-based consultancy'.)	Met = 1	
Sampling is based on section 6.3 'Project manager's	Partially met =	
responsibilities and tasks'.	2	
	Not met = 3	
Did the project manager know about the manual at the		(Answered with yes/no and a
start of the project? Or acquire knowledge about it in		comment, if any)
the course of the project? Can the project manager		
show where the department's guidelines can be found?		
Project manager is responsible for contractual basis		
and project description, see section 6.3.1.		
Questions are asked about initial dialogue, contract or		
other type of written agreement, including legal check,		
project description and keeping of records.		
Balance between resources and tasks, see section		
6.3.2.		
Questions are asked about dialogue with the head of		
department on the service, finances and academic		
resources, alignment of expectations with the		
client/ordering authority, dialogue on participants and		
peer reviewer, the participants' understanding of the		
service and creation of the project in the financial		
management system.		
Good academic practice, see section 6.3.3.		
Questions are asked about knowledge of UCPH's		
guidelines, including in relation to the project authors,		
securing of work and data, GDPR rules, agreement		
with peer reviewer and the peer reviewer's comments.		

Specifically about ad hoc opinions and brief	
memoranda, see section 6.3.4.	
If this concerns a brief memorandum, questions are	
asked about the project manager's considerations.	
Good practice in dialogue and other external relations,	
see section 6.3.5.	
Questions are asked about whether there have been	
changes in relation to the project description and to the	
documentation/filing of the dialogue with the	
client/ordering authority and others in the course of	
the project, as well as whether any client/ordering	
authority input, project manager's potential conflicts	
of interest etc. are reflected/declared in the report	
Project manager assures quality prior to publication,	
see sections 6.3.6 and 6.2.7.	
Questions are asked about whether the preparation has	
been based on a checklist, or whether items under	
section 6.2.7 have been followed.	
Subsequent communication and PR, see section 6.3.7.	
Is it clear who the contact is for the report? In	
addition, questions are asked about whether special	
agreements have been made regarding the subsequent	
communication and the PR work, if any.	
Peer review, see sections 6.4 and 6.2.6.	
The project manager is asked about the department's	
guidelines on peer reviews. The peer reviewer is asked	
about the guidelines, time of contact and time	
schedule.	

<sup>\*</sup> Any explanation, elaboration or similar is written in this field.

The audit team's overall comments regarding the project:

The audit team's signatures and date:

Version 4, July 2023

# Appendix 6: Form for the department's self-evaluation

Requirements	<b>Compliance for</b>	Last year's	Department's
(All references to sections refer to the	the year *	compliance *	comments
'Manual for quality assurance of research-			
based consultancy'.)			
The departmental management has ensured that all			
the department's employees have knowledge of and			
access to the quality assurance system, including			
the 'Manual for quality assurance of research-based			
consultancy'.			
See section 6.2.			
A description of the departmental procedures for			
the conclusion of agreements, budgeting and			
staffing, including the appointment of			
administrative contacts, is readily available on the			
intranet. See sections 6.2.1 and 6.2.2. Insert link in			
the department's comments.			
The department's requirements for and guidelines			
on project description, including a template, if			
relevant, prior to the conclusion of agreements have			
been communicated to the department's employees			
and are readily available on the intranet. See section			
6.2.4. Insert link in the department's comments.			
A description of supplementary technical quality			
standards (for example in connection with			
laboratory analyses, development of software,			
monitoring activities, risk assessment etc.) is			
available to the department's employees and is			
applied in practices and procedures. See section			
6.2.5.			
The department's requirements for and guidelines			
on peer reviews are known to the department's			
employees and are readily available on the intranet.			
See section 6.2.6. Insert link in the department's			
comments.			

The department's procedure for the preparation and		
publication of the results of research-based		
consultancy is known by relevant employees and is		
readily available on the intranet.		
See section 6.2.7. Insert link in the department's		
comments.		
The department's procedure for handling the press		
is known by relevant employees and is readily		
available on the intranet. See section 6.2.8. Insert		
link in the department's comments.		
The head of department has ensured a description		
of the delegation of responsibilities and an		
overview of support functions and resources in		
relation to quality assurance of research-based		
consultancy for both the department's employees		
and external clients/ordering authorities.		
See section 6.2.10.		
For departments with consultancy tasks		
A description is available of the department's		
procedures to ensure the availability of the		
competencies required to execute specific research-		
based consultancy tasks, and relevant employees		
have knowledge of this. See section 6.2.3.		
The head of department has ensured that experience		
with the use of quality assurance is gathered, shared		
and used as a basis for continuously improving practices, including at least one annual		
memorandum.		
See section 6.2.9.		
For departments involved in sufficient volumes of		
research-based consultancy, feedback is collected		
on an ongoing basis from the client/ordering		
authority on whether the deliverable(s) are as		
agreed.		
* Met = 1. Partially met = 2. Not met = 3		

<sup>\*</sup> Met = 1, Partially met = 2, Not met = 3

The department's learning processes and continuous improvements (see section 6.2.9)

This sheet describes the department's annual experience with and suggestions for improvements to the department's practices and routines.

- 1. The department's experience with the use of the Manual for quality assurance of research-based consultancy:
- 2. The department's suggestions for improvements to the department's practices and routines:
- 3. The department's suggestions for updating of the Manual for quality assurance of research-based consultancy:
- 4. For departments involved in sufficient volumes of research-based consultancy how the department has ensured evaluation of customer satisfaction, see section 6.2.9:
- 5. Other comments:

Signature: Head of department

# Appendix 7: Form for the dean's annual audit

Requirements	Compliance for the	Last year's	Dean's
(All references to sections refer to the	year/number of	compliance/number	comments
'Manual for quality assurance of	departments *	of departments *	
research-based consultancy'.)			
The departmental management has ensured			
that all the department's employees have			
access to and knowledge of the quality			
assurance system, including the 'Manual for			
quality assurance of research-based			
consultancy'.			
See section 6.2.			
A description of the departmental procedures			
for the conclusion of agreements, budgeting			
and staffing, including the appointment of			
administrative contacts, is readily available			
on the intranet. See sections 6.2.1 and 6.2.2.			
The department's requirements for and			
guidelines on project description, including			
the use of a template, if relevant, prior to the			
conclusion of agreements have been			
communicated to the department's employees			

and are readily available on the intranet. See		
,		
section 6.2.4.		
A description of supplementary technical		
quality standards (for example in connection		
with laboratory analyses, development of		
software, monitoring activities, risk		
assessment etc.) is available to the		
department's employees and is applied in		
practices and procedures. See section 6.2.5.		
The department's requirements for and		
guidelines on peer reviews are known to the		
department's employees and are readily		
available on the intranet.		
See section 6.2.6.		
The department's procedure for the		
preparation and publication of the results of		
research-based consultancy is known by		
relevant employees and is readily available		
on the intranet.		
See section 6.2.7.		
The department's procedure for handling the		
press is known by relevant employees and is		
readily available on the intranet. See section		
6.2.8.		
The head of department has ensured a		
description of the delegation of		
responsibilities and an overview of support		
functions and resources in relation to quality		
assurance of research-based consultancy for		
both the department's employees and external		
clients/ordering authorities.		
See section 6.2.10.		
For departments with consultancy tasks		
A description is available of the department's		
procedures to ensure the availability of the		
competencies required to execute specific		
research-based consultancy tasks, and		

relevant employees have knowledge of this.		
See section 6.2.3.		
The head of department has ensured that		
experience with the use of quality assurance		
is gathered, shared and used as a basis for		
continuously improving practices, including		
at least one annual memorandum.		
See section 6.2.9.		
For departments involved in sufficient		
volumes of research-based consultancy,		
feedback is collected on an ongoing basis		
from the client/ordering authority on whether		
the deliverable(s) are as agreed.		
See section 6.2.9.		

<sup>\*</sup> Met = 1, Partially met = 2, Not met = 3

# Appendix 8: Staff leaflet – for inspiration

Department of Veterinary and Animal Sciences' staff leaflet – for inspiration for other departments

#### Collaboration with industry and government agencies and institutions

- How are arm's length and transparency ensured?
- How are conflicts of interest declared?

IVH, January 2020

#### Background

The Department of Veterinary and Animal Sciences (IVH) at the University of Copenhagen has a long tradition of collaborating with society, including the agricultural sector, the pharmaceutical industry and other stakeholders in business and industry as well as non-governmental organisations (NGOs). This may be in connection with publicly funded projects where we partner with business and industry, or via grants from business and industry, NGOs or various business-related foundations, where representatives from business and industry or NGOs are typically either cooperation partners or members of reference groups.

These collaborations help to ensure the relevance of our research and generate knowledge that could not be obtained in any other way, and the collaboration may also contribute to the funding of the research. Even though there are many good reasons for maintaining and strengthening this type of collaboration, there is also a need to ensure that the collaboration does not take place at the expense of confidence in the objectivity and independence of our research.

IVH has many years of experience in providing consultancy and research funded and commissioned by government agencies and institutions in Denmark and the EU. This work is growing with our takeover of the veterinary contingency preparedness services from DTU. Close collaboration with the business community and government agencies and institutions may, however, create increased awareness of the extent to which we are affected by political and financial interests.

Researchers at IVH are making serious efforts to ensure the necessary trust in the objectivity of research based on collaboration with external parties and of our public-sector services. To a very high degree, this is being ensured on the basis of tacit norms. However, in light of a number of cases in recent years where in particular other universities have been exposed, it is important to continuously clarify the principles of and requirements for good practice in the field.

#### Principles and requirements

#### Principles

- 1. Arm's length in relation to economic and political interests must be ensured
- 2. There must be full transparency about the conditions on which the collaboration is based
- 3. Potential conflicts of interest must be declared

# Requirements

- 1. IVH cannot enter into research agreements with businesses, interest groups and NGOs or agreements on public-sector tasks which restrict researchers' right to choose the most appropriate methods to solve the tasks, or which limit their right and duty to publish the research results. (As regards publication, however, it is possible to agree on a waiting period, typically a maximum of three months, during which the external party has the opportunity to consider the results and manuscripts before they are published.)
- 2. All research collaboration with external parties and all performance of public-sector tasks require written agreements. When collaborating with businesses, interest groups and NGOs, these agreements must be drawn up in collaboration UCPH's Tech Transfer Office. In the case of public-sector tasks, these must be performed within the framework of an overall framework agreement approved by the rector or another agreement approved by the Tech Transfer Office. All consultancy provided to government agencies and institutions must comply with UCPH's quality assurance procedures for research-based consultancy.
- 3. As concerns agreements on commercial exploitation of the results of a research collaboration with external parties, IVH and the individual researcher are subject to special legislation (the Danish Act on inventions at public research institutions), and such agreements must be approved by UCPH's Tech Transfer Office.
- 4. The individual researcher who receives funding from businesses, interest groups or government agencies and institutions, or who cooperates with these, must clearly declare potential conflicts of interest. The same applies in relation to all public-sector tasks. This must be done in all publications stemming from these activities. This may also be done in the researcher's presentation of him/herself on UCPH's website and on project websites. PLEASE NOTE! Please pay attention to special requirements in connection with sideline occupation.
- 5. Where researchers employed with UCPH establish their own business based on inventions made during their employment with UCPH, as well as activities associated with this, conflicts of interest may easily arise which must be declared and handled. Information on this can be found in the guide below on how to handle conflicts of interest.

Definition of conflict of interest: A situation in which financial or other interests may *potentially* compromise or influence the professional assessment. What is crucial is not only whether such influence *actually* exists, but also whether there *may* be grounds for suspicion, whether justifiable or unjustifiable, about such influence. (The University of Copenhagen's code of good scientific practice in research collaborations with external parties, based on a statement from the Practice Committee.)

#### Relevant documents:

The University of Copenhagen's code of good scientific practice in research collaborations with external parties:

https://erhverv.ku.dk/samarbejdsformer/bokse/kodeks\_samarbejde/Kodeks\_for\_samarbejde\_med\_ekster\_ne\_final.pdf

Håndbog for Dansk Veterinær Konsortium – Procedure for henvendelser og leverancer (Manual for the Danish Veterinary Consortium – Procedure for enquiries and deliveries) <a href="https://www.dropbox.com/s/uv5iej79jshd7p8/Henvendelser%20og%20leverancer\_procedure03.pdf?dl=0">https://www.dropbox.com/s/uv5iej79jshd7p8/Henvendelser%20og%20leverancer\_procedure03.pdf?dl=0</a> [insert relevant department name and link.]

Research and innovation The University of Copenhagen's general principles for collaboration with external parties – a practical guide to the University's collaboration partners <a href="https://erhverv.ku.dk/bokse/pixi-samarbejde/ku-s-guide-vedr-samarbejdsaftaler-dk-tileksterntweb.pdf">https://erhverv.ku.dk/bokse/pixi-samarbejde/ku-s-guide-vedr-samarbejdsaftaler-dk-tileksterntweb.pdf</a>

UCPH's quality assurance procedures for research-based consultancy

Research and innovation The University of Copenhagen's general principles for the handling of conflicts of interest – a practical guide for the University's researchers <a href="https://fi.ku.dk/tech-trans/guides/pdf/PIXI">https://fi.ku.dk/tech-trans/guides/pdf/PIXI</a> Interessekon DK.pdf/

#### About this brochure

This brochure was prepared by a working group consisting of Associate Professor Helle Stege, Professor Birgitte Vennervald, Professor Anders Miki Bojesen, Professor Jens Lykkesfeldt and Professor Peter Sandøe (Chair). Peter Rekve has served as secretary to the group.

# Appendix 9: Quick reference – Project manager's responsibility in quality-assuring research-based consultancy

# To the researcher/project manager

Project manager's responsibility in quality-assuring research-based consultancy

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 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 written agreement 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 of the dialogue and ensuring transparency about it
- 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 assuming responsibility for any further communication about the services delivered.

Section 6.3 in the <u>manual</u> (a total of five pages) provides answers to everything you need to know in order to comply with the guidelines, including relevant links, relevant templates, documents etc.

#### Scope and delimitation (the full text can be found in section 3.3)

The contractual basis of all research collaborations and research-based consultancy tasks carried out at the University of Copenhagen must take the form of a written agreement. Therefore, this quality assurance manual only covers tasks provided on the basis of a written 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 in areas of research interest. The tasks may manifest themselves in many different ways such as monitoring, risk assessment and warning tasks, development of software and digital tools and routines such as specialist analyses of samples and scientific interpretations/assessments based on the faculties' competencies and infrastructure.

- Quality assurance of teaching activities and research in general is not covered. Please refer instead to the Danish Code of Conduct for Research Integrity.
- The work associated with and statements provided in connection with University of Copenhagen employees being appointed to boards, councils and committees are generally not covered by the standard procedures laid down in the quality assurance manual.
- The provision of standardised services such as routine analyses and clinical services (often also referred to as 'income-generating activities without contract'), with these services typically being provided on the basis of a price list, is not covered.



# Appendix 10: Template for commenting on draft research-based consultancy from the Department of [department name]

Title	[fill in before sending]		
Responsible project manager	[fill in before sending]		
Client/ordering authority/peer			
reviewer			
Contact			
Deadline for submitting	[fill in before sending]	Date for handling of comments	
comments			

	Client/ordering authority/peer reviewer			Department	
	Line	Comment	Responsible	Reasoned handling of comment	Responsible
	number,		for comment		for handling
	if any				of comment
1					
2					
3					
4					
5					
6					