

## Rationale for work at the Open Science Forum at Aarhus University

There are two main reasons to strive for openness and transparency in all phases of the research process.

Firstly, a prerequisite for academic collaboration and quality assurance is access to results, data, code and other documentation. Effective mechanisms for sharing data and knowledge between researchers help push forward the frontiers of research. At the same time, the quality of research results depends on peers having access to data and documentation in connection with assessment and verification of studies. Openness and transparency therefore help ensure the quality of the research knowledge base and thus the *credibility* of research.

Secondly, society's *trust* in research is increasingly dependent on research results being applied in the best possible way in areas such as health, climate, energy, food, etc., where society needs research-based knowledge. Not only do the frontiers of research depend on effective knowledge sharing and open research practice, so too does social progress in a broader sense.

While the Open Science concept was previously primarily applied in relation to open access publication of research publications and research data, it is now becoming increasingly important to capture a broad range of considerations and activities aimed at strengthening the credibility of research and mutual trust between science and society. These include elements such as pre-registration, open peer review, open infrastructures and open source, while emphasis is on more inclusive collaboration structures between researchers and societal actors, e.g. through citizen science, open innovation, open labs, etc. In this context, it is important for the Open Science Forum at Aarhus University to note that:

- regardless of whether the concept is defined narrowly or broadly, Open Science is closely linked to other efforts to strengthen responsible research culture and practice, including data management, research ethics, declaration of conflicts of interest, responsible evaluation practice, training in research integrity, good supervision practice and research communication. Aarhus University already has policies, procedures and activities in place in several of these areas, and it is important that work at the Open Science Forum is integrated with existing structures and resources;
- because of this link, there may be legitimate, conflicting considerations to be balanced. For example, openness must be balanced in terms of data protection considerations and information security issues. In this case, it is also important that existing policies and procedures at the university are taken into account by the Open Science Forum;
- Open Science practice is increasingly based on knowledge and utilisation of digital universes for research collaboration and knowledge sharing.

A general concern for researchers is that their research practices comply with the principles of honesty, transparency and responsibility, as expressed in the Danish Code of Conduct for Research Integrity, for example. There is also a general willingness to collaborate and share knowledge with society. However, it is also clear that there is a need for institutions to build bridges between abstract principles and practice. Universities must support responsible conduct of research by offering relevant policies, infrastructure, guidelines and guidance. In this context, the Open Science Forum must be attentive that:

- there is a need to plan and prioritise initiatives so that they reflect researchers' actual needs for support for the Open Science practice. This means that the relevance of activities within the framework of the Open Science Forum must constantly be ensured through dialogue and active involvement of researchers;

- the division of work and responsibilities between different levels of the organisation (e.g. university, faculty and department levels) must be organised appropriately. Effective support requires clear allocation of responsibilities and efforts at the right organisational levels;
- international and national regulation and development are a framework for both prioritisation and organisation of work with Open Science at Aarhus University. The Open Science Forum will help to ensure that the organisation of the work at the university is communicated to, and benefits from, international and national developments and activities.

The Open Science Forum will prioritise its activities based on its Terms of Reference and the above considerations. During the first period, the Open Science Forum will prioritise Aarhus University's implementation of the national strategy for research data management based on the FAIR Principles, focusing on:

- establishing and operating necessary infrastructure;
- formulating guidelines and directions;
- communicating standards and best practice;
- competency development.