



General Principles of Research Infrastructures at Tampere Universities

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Definitions

A **research environment** comprises the operational models, competencies and research infrastructures of an organisation. It includes the staff members working in the research environment and their competencies, the operations carried out in the research environment, research funding and the available methods, equipment and general infrastructure. A research environment also encompasses the general prerequisites for research, such as opportunities for national and international collaboration.

In this document, research environments are comparable to the legal persons of Tampere Universities and the parts thereof. Depending on the perspective, a research environment can be, for example, Tampere University (as a whole), Tampere University of Applied Sciences (as a whole), an individual faculty, unit, research centre, research group or a school at Tampere University of Applied Sciences.

The term **research infrastructure** refers to devices, equipment, data networks, databases, materials, software and related services that make it possible to carry out research, promote research collaboration, support training and the development of competence among research staff, and strengthen the capacity for research and innovation. Research infrastructures can be centralised, decentralised or virtual entities or combinations thereof.

Research infrastructures are an integral part of research environments.

The (administrative) owner of a research infrastructure is always a legal person. At Tampere Universities, the owner is either Tampere University or Tampere University of Applied Sciences.

The scientific-technical owner of a research infrastructure is the research environment to which the research infrastructure primarily belongs. Scientific-technical owners are responsible for the competent management, operations and openness of research infrastructures and for their long-term development. For example, at Tampere University the scientific-technical owner will

typically be a faculty (research infrastructures which are used by no more than two faculties) or a unit within a faculty; the scientific-technical owner of research infrastructures that are used by more than two faculties will typically be a university-level entity. If a research infrastructure is reserved for a specific use, the scientific-technical owner may be a research group or a research centre.

General principles

1. The university community as an environment for high-quality research infrastructure

High-quality research infrastructures are a key part of the research environments of Tampere Universities and enable high-quality scientific research. Tampere University and Tampere University of Applied Sciences maintain appropriate financial, operational and space planning processes for the development of research infrastructures and ensure the availability of the required resources. The public website of Tampere Universities must contain up-to-date and comprehensive descriptions of the community's research infrastructures and the possibilities for their utilisation.

2. Responsibility and sustainable development

Research infrastructures are managed and used ethically and responsibly throughout their life cycle. The staff and users of research infrastructures adhere to the guidelines of good scientific practice and the principles of good governance. Research infrastructures take into account the UN Sustainable Development Goals. The safety of staff and users is ensured throughout the life cycle of research infrastructures.

3. Long-term development and dynamism

Research infrastructures are developed purposefully. High-quality research infrastructure operations require both long-term development and dynamism. The long-term development of research infrastructures requires planning, guidance and a financial perspective that extends beyond the terms of the decision-making bodies of the university community. In this context, dynamism refers to the ability of research infrastructures to seize new opportunities, regardless

of the stage of the university community's annual operating cycle. The operations of existing research infrastructures and the need to set up new research infrastructures are regularly assessed.

4. Ownership and competence

The university community is aware of the responsibilities and obligations related to the ownership of research infrastructures. Tampere University and Tampere University of Applied Sciences are the administrative owners of the research infrastructures, and the main research environment acts as the scientific-technical owner of individual infrastructures. The scientific-technical owner is responsible for the competent management, transparency and development of the research infrastructure, the development and continuous availability of the required competence despite possible personnel changes, and for the allocation of resources in accordance with the administrative owner's processes. The staff, users and owners of research infrastructures share good practices, management practices as well as their development plans and roadmaps.

5. Digitalisation and data

Research infrastructures identify the needs, challenges and opportunities for change brought about by increasing data intensity and digitalisation. It is essential to provide support for open science and research and ensure data protection and security. The digital research infrastructure must meet increasing needs pertaining to research data management and analysis across the university community. The opportunities of digitalisation, the introduction of new technologies, the safe remote use of research infrastructures and novel service models will be regularly evaluated while developing research infrastructures.

6. Transparency of operation

Transparent principles and operational models will be created for the internal use of research infrastructures at Tampere Universities. The owners of research infrastructures will be encouraged to promote the use and accessibility of infrastructures across organisational and unit boundaries also in the contexts of education, development and innovation activities.

7. Openness, impact and collaboration

Alongside the university community's own research infrastructures, existing open-access national and international research infrastructures will be utilised, and forms of collaboration will be

developed with them. Similarly, the services of in-house research infrastructures may be made widely available for researchers outside the university community, the private sector and the broader society in the contexts of both open research and contract research. In order to increase the impact of research infrastructures, operational models will be created to enable collaboration with various private and public sector stakeholders that will utilise and develop the infrastructures. A research infrastructure owned by the university community or a partner may be utilised during such collaboration. However, the commercial use of the university community's research infrastructures must not take precedence, and collaborations must be carried out in compliance with the ethical principles of academic research.