

Summary

Publicly funded research is largely conducted at higher education institutions that are mainly state-owned. The Government has defined the role of higher education institutions regarding research utilisation as promoting the uptake of research findings for the benefit of society. This task is part of the core activities of education and research. Political expectations are high but imprecise.

The overall question for us is how the central government uses its various policy instruments to enable higher education institutions to meet their responsibility as a collaborative partner promoting utilisation in relation to other public sector actors and to industry. We have therefore developed a management and analysis model that enables us to take a holistic view of the area. In addition to helping us analyse the innovation activities of higher education institutions, it can also be used in the actual management of their activities. A particularly important dimension is the facilitation of institutional development, and more specifically, the development of ‘complete academic environments’ and of arenas for research and innovation. The report analyses four management mechanisms:

Management by objectives: Research and innovation policy objectives for the management of public research results.

Management by regulation: The design of the legal framework with which higher education should comply.

Management of programmes and projects: Decisions by research funders and innovation agencies concerning collaboration and utilisation on the part of higher education institutions.

Management of resources: Allocation of funding and the purpose of this.

The report's analysis focuses on the ability of higher education to manage intellectual assets. An overall assumption is that management – at least in the fields of science, technology and medicine – will need to focus to a greater extent on the management of these assets. There is an expectation, especially within European management of programmes and projects, that network and project organisation should contribute flexible organisational forms that have a greater capacity for action and innovation. The focus then naturally falls on the management of collective and open knowledge processes as transactions of intellectual assets. It seems that the Swedish State has been influenced only fragmentarily by the development and harmonisation occurring in research and innovation management at EU level. Moreover, Swedish higher education deviates noticeably from the ambitions of the European Commission in this area.

In governing who is to be responsible for research utilisation and managing research processes, it is reasonable to focus on the issue of who has the right to the findings. This issue includes the legal conditions higher education institutions have at their disposal to utilise the results of research. By focusing on intellectual assets, it becomes clear that the management of utilisation by higher education institutions should be integrated with the management of research.

Institutions of higher education are key innovators, while at the same time they are government agencies. The latter dimension places special demands on their activities. Management of the various parts of their utilisation activities is important if these parts are to function effectively. One complication is the interplay with researchers in their private capacity. There is a lack of clarity concerning the responsibility of higher education institutions in relation to their employees as private actors.

Our starting point is that the state, as the entity responsible for higher education institutions, has an important role in the area of innovation. The state can be responsible for certain critical parts of the activities for which no other actor takes sufficient responsibility. This includes creating good general conditions for collaboration and utilisation processes, for example through:

- taking responsibility for the overall management at central level,
- creating clear and coherent regulations for the activities,

- taking primary responsibility for funding commercially viable research findings at early stages, and
- developing institutional research and innovation infrastructure.

In view of the relatively unclear situation that exists today, we believe the state has a special responsibility to create the conditions for higher education as an organisation for collaboration and the promotion of utilisation.

The legal regulations in this area must be reviewed and clarified. In particular, the legal framework of higher education institutions must be strengthened to enable them to operate as an actor in this context. Another task should be reviewing the Higher Education Act, the Higher Education Ordinance, the Inventors Act and other special administrative law. The problematic relationship between the regulations governing utilisation and the general administrative regulatory framework must also be clarified. In connection with review of the legal regulations, particular attention should be paid to incentive structures – both for higher education institutions and the individual researcher.

We recommend a holistic approach in regulating the institutional development of higher education institutions as an actor, with an academic and integrated responsibility for education, research and utilisation. This holistic approach is important particularly because of the interplay between the legal conditions: acting as a collaborative partner promoting utilisation, managing intellectual assets, addressing matters of utilisation and letting employees leverage the benefits. For example, the rules governing the task of higher education are not synchronised with the rules governing the rights to research results. The various rules should therefore be reviewed simultaneously. We also wish to emphasise the significance of Swedish research funders taking responsibility for ensuring that higher education's management of intellectual assets is professionalised. Higher education must ensure the effective application of background knowledge and project findings, even if the higher education institution is not the holder of the rights.

Adaptive governance of the various universities and institutes of higher education must also be developed. Governance must specifically define the academic responsibility for utilisation at higher education level. It is particularly important to highlight

responsibilities of higher education management. Governance should also specify the level of ambition concerning collaboration and utilisation. This governance should be clear and concrete. It is the Government's responsibility to take the initiative to ensure better governance of higher education institutions.