

Finnish Universities are being led to a new direction with the help of the new University law. The idea is to move from quantitative objectives to raising quality. The method of measuring quality is not yet known. I will not propose here a new method for the purpose. In any case a top University conducts world class research. I will take a look at raising “quality” from the trenches as a professor and Chairman of a Department having seen many projects from proposals to implementation.

In Finland, the majority of University research is done in projects funded by the Academy of Finland, TEKES, different ministries and companies, EU, ESA etc. Largest volume comes from TEKES, corporate and EU funded projects. Such projects progress from 1) idea and 2) identifying a suitable call, consortium building and proposal to 3) decision and 4) kickoff. The project proposal usually must be rather explicit about the objectives, tasks and outcomes. Reporting requirements ensure that plans are fulfilled.

Often in an EU-funded project the lead time from idea to kickoff is about two years. In TEKES projects the lead time is often about one year. In Academy funded projects, if a suitable PhD student is at hand, due to looser reporting requirements, it is often possible to start work on the idea immediately. Unfortunately, the Academy funding especially for constructive engineering research is very limited and even the total of Academy funding is quite scarce. Naturally, in a top University, because sufficient funding is always available, work on a new promising idea can start immediately and results have been often published in one to two years.

Often in projects, especially in constructive research, the needed effort is underestimated and the best academic results have not yet been obtained when the project ends. Verifying a complex set of ideas may take a bundle or sequence of projects. The sequence may break in the middle. In such cases the academic impact is at best satisfactory even if e.g. a significant new software architecture was created. Often even if the results are promising, they are forgotten rather than turned to innovations. Eager business angels are ready around a top University to grab the best ideas and push them to the market.

The newest funding instrument TEKES is offering is the Strategic Centers for Science, Technology and Innovation (SHOK). At least in the ICT sector, leadership in the SHOK has been given to the corporations. This principle is based on the illusion of the decision makers that “the companies know what they need and what research is relevant”. The result seems to be that the research has become more and more short term oriented, i.e. that the attribute “strategic” has been forgotten. When the control lies in the hands of large companies, at least it is sure that no new companies will be created.

*This brief analysis shows that a unit that conducts only direct project funded research for sure will never get to the top in its area. A real top University gets one or two years head start in starting work on new ideas and its best ideas are pulled to the next phase of the innovation chain with ease. Therefore, both the academic impact and the impact on creating new business of a top University greatly surpasses what we are able to show from the Finnish system.*

What can a research unit do in the current Finnish system of research funding when it strives for the top? It can a) sell projects at a surplus above full cost or run a very low overhead project machine leading to margins that partially come from the University basic funding when all units are measured equally and direct the margins to free research or b) dimension projects so that they make it possible to fund some

amount of free research or sell projects with plans that can be fulfilled with results that have already been almost achieved but not yet published and use the remainder of the project time to prepare the real substance for the next project. Of these a) is perfectly legal and to my understanding b) raises the question whether it is legal.

I advocate that we need less innovation liturgy, less management of research and innovation and more free research and real innovators. It seems that only this way it is possible to make progress towards the goals that lie behind the new University law. The strength of the Finnish innovation system is in the close cooperation of Universities with companies. How can we preserve this if research is free? I believe the way is found if there is a will.