Laws that Hamper Swedish Innovations

What legal regulations promote or, to the contrary, hinder innovation process?

In the university sector the teacher exemption, that the teachers own their own inventions, sets the boundaries for the system of handling intellectual property at universities. In Sweden the law gives the inventor ownership to their inventors but if the inventor is employed the employer has an option to acquire the invention. At universities there is an exemption that nullifies this option for teachers not researchers. This exemption was introduced in 1949 to prevent commercialization of teachers’ knowledge. Some 20 years later this was expanded, not in the law but by practice, to include researchers.

Another explicit legal regulation is the public availability act that essentially prevents universities to sign non-disclosure agreements. This hinders efficient collaboration between universities and industry since industry often requires secrecy agreements. This hinders efficient collaboration between universities and industry since industry often requires secrecy that university lawyers refuse to sign.

In the private sector the public procurement regulations gives a climate that hinders small innovative companies to enter the market. The procurement is bureaucratic and prevents new solutions and introduction of changes. In, for example, the medtech sector there are very few centralized customers, the hospitals that are run by local authorities, and those are often unwilling to try new solutions when old ones are good enough. If there is an opening for a small company, the procurement process is long, tedious, and SMEs often run into a cash flow problem during the time.

What are the major participants in the innovation process in Sweden?

The innovation process includes actors from all sectors, as it should. They, of course, act from their own perspectives and with their specific goals and incentives. Sweden has a large number of international companies like SCA, Volvo, Astra-Zeneca and Tetra Pak that represent a number of industrial sectors. There companies have interaction with research institutions and also collaborate in between themselves and with their suppliers in innovation activities.

The research funding agencies have different roles and perspectives on innovation. VINNOVA is the only agency that has innovation as a part of their mission in a clearly communicated way. I believe that we have to strengthen the funding agencies role and responsibility for utilization of research, not only for research itself. This has to be an integrated process and research funders can and should demand better results from universities when it comes to utilization. This depends on the development on criteria for evaluation and indicators that has to be developed.
| The various government ministries responsible for industry, finance and education participate and support the innovation process in an active way. Organizations that work to change the prerequisites for innovation, technology transfer and entrepreneurship include SNITTS (Swedish Network for Innovation and Tech Transfer Support), IVA, and others.

On the public side the production facilities like universities, university colleges, and research institutes are important in knowledge transfer, creation of high tech spin offs and education of people. Science parks and incubators work often in close proximity of universities and university colleges and for important interfaces and infrastructure for industry-university collaboration.

**How important is the role of government compared to that of the market forces?**

The Government and its instruments like research funding agencies can influence via legislation, incentive programs and support structures, and driving the debate but as always the market forces drive innovation, which lies in the definition. The balance between interfering and facilitating is difficult but in my opinion Sweden has unfortunately a flare for constructing around problems rather that solving the problem itself. We are most hesitant to change laws that prevent innovation and rather try to create support and provide funding that in government theory should solve the issue. We are too careful in Sweden to be politically correct and have to investigate all aspect before we reach a consensus decision.

**What are the latest trends in innovation policy?**

Which policy? Referring to the above mentioned cautiousness and our strive for consensus puts a wet blanket over all efficient processes. Since everybody has to be involved and all aspect has to be covered this means that a truckload of well-known persons without real knowledge of what innovation is has to be involved in the process with obvious result. Service innovation has rendered a great deal of interest lately and resulted in a Service Innovation Strategy.

The EU commission recommendation that appeared in 2008 for IP handling at public research organization was for a long time treated as a hot potato that nobody wanted to handle. Due to pressure from the EU this has finally appeared on the agenda and may lead to something.

**What may be achieved through these changes?**

Since consensus is the only measure of success, and since people delivering strategies doesn’t understand the real work and do not connect to practitioners, I have low hope for getting results that really make a difference. What may influence things in the right direction is the increasing internationalization and increasing awareness of international abilities, which is an important task for SNITTS.

**What helps and what hinders the development of innovation system in Sweden?**

We have in Sweden a well-developed system with Science Parks and Incubators that handles spin-offs from universities in a well established and orderly way.

The funding system is fairly well developed. There is funding available for “verification” which is the phase where research inventions are evaluated with respect to utilization possibilities. We have a developed system for seed financing and there is also funding available for established companies etc.

Luckily the innovation strategies and policies doesn’t affect industry too much, so the damage is limited. We have challenges at several levels ranging from leadership issues at all levels from government to university management. There is no clear idea about what to do, how to do it, who is in charge, and when to do it. Other showstoppers are the things mentioned above like teachers’ exemption and other legal obstructions. There is also a lack of incentives at many levels for example at the peoples level since we are a wealthy nation and people hence lack the poverty incentive.

In which areas the results of innovation have been most impressive?

In the private sector where there are plenty of Swedish companies that are results of innovative processes. The so-called innovation system is non existing since we have only fragments of a system and only components that work well. The system has accomplished nothing so far. As mentioned above, the spin-off creation component of the federal system is successful in creating spin-offs (but only a subset of the system) although they have not created any economic growth so far.

**How do you explain it?**

The driving forces are more clear in the private sector. Companies have to be innovative in order to survive. The so-called innovation system has a university focus and a focus on spin-off creation and it is clear that no spin-offs should ever be created from research based innovation. Research based innovation very rarely leads to large companies.

To the contrary what were the areas where innovation failed to produce breakthrough despite efforts so far?

Research based university spin-offs has not delivered any substantial economical growth at all despite large programs. They are successful in creating a large number of spin-offs but the companies in general remain small or get acquired by larger companies.

**What is your forecast for the development of innovation system in Sweden?**

The optimistic scenario: SNITTS grows to 1000 members and becomes the meeting place for TT and Innovation issues and possibilities. There are several legislative changes including the teachers exemption changed into university ownership of employers’ inventions. Licensing is developed as a tool and starts getting used as the dominant model for exploitation. Spin-off creation is developed to focus on non-research ideas e.g. student ideas. Universities start realizing that they should work with companies in order to let the companies grow. Companies, universities, research institutes begins dealing with intellectual asset management.

The realistic scenario: Business as usual, i.e. nothing much of value.