

Entrepreneurship in a Welfare State



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What is SNITTS and what is SNITTS' position in the Swedish innovation system?

SNITTS is a fairly new nationwide network, a non-profit organization of professionals who work with knowledge- and technology exchange. We are financed by VINNOVA and we have existed for two years now. The idea behind SNITTS was to create a national platform where members can build their knowledge, exchange experiences, develop methods and contribute to putting the agenda for knowledge and technology transfer. This field is relatively new in Sweden, and we need to develop knowledge and to learn know-how of the profession, to establish an innovation support system around the academies. So SNITTS is for all the people involved in technology and knowledge transfer, innovation support. Most of the people we are working with are from universities, others work in government agencies dealing with innovation support. Also there are people from industries, big companies, as well as from research institutes. Our goal is to encourage and help them mix with each other so that they could learn from each other. For that purpose we apply education, events, information and policy activities, run courses, conferences on fundamentals of technology transfer, licensing, etc; together with VINNOVA we work on establishing an international fellowship program providing international training opportunities to senior staff or experienced professionals who work with innovation and commercialization of academic research results at tech transfer offices or the equivalent at Swedish universities. We also stage a lot of discussion seminars for the professionals. So we are sort of a network platform for some 250 people who now can put together different interest groups, like a legal group, another one working with small and medium-sized companies, etc. We also have committees but they work internally for SNITTS like the one which deals with organizing those courses and conferences, looking at best practice and benchmarking. In other words SNITTS is a network for professionals supporting the ideas and innovations of tomorrow and the growth of companies translating scientific discoveries and innovative technologies into new products and services which leads to a vibrant innovation economy benefiting Sweden.

Generally speaking what are the specifics of the Swedish innovation system?

One special thing is that we have a “teachers exemption”. It means that teachers’ employers, unlike the rules which apply to other employer-employee relationships, cannot make any legal claim to the inventions of teachers unless special agreements to this effect have been concluded. This teacher exemption, while currently under review, has been seen as an important incentive for researchers to commercialise their research results. Some employees perhaps may feel encouraged to take their ideas to the market in the belief they are going to make “big bucks”, but most people don’t. In most cases the employees have neither knowledge nor desire to try their luck in the market, and even if we have a support structure for the employees at universities, there is no structure to commercialize their ideas when they don’t want to. It is a very individual driven system. It is quite a sensitive issue though, and half of those involved believe “teachers exemption” is good, while the other half argue that it should be abandoned. However as far as it stays it is a prominent specific feature of the Swedish innovation system.

Secondly our system is fragmented with lots of actors involved but working without a united innovation strategy, it is yet to be worked out. We spend a lot of money on research and we are really good in starting spin-off companies because universities do not own their IP (intellectual property, i.e. inventions of their own employees) and they cannot license it. So we are a spin-off country, so to say. However while Sweden is very much focused on creating spin-off companies, we are not so good at making them grow. Also traditionally Sweden’s industrial policies and strategies have been targeted too much towards big multinationals at the expense of small and medium-size companies. It all began to change in the last two decades, especially in the last five years, and now the government has announced they are going to decide on an innovation strategy for Sweden based on European ones. So industry-wise, we are in the middle of a major transition from big companies to small ones who are the only ones with a real potential to grow in the future.

It also seems that what defines Sweden from other countries is a more visible role played by the government...

The government does not have a specific innovation policy, but they have now initiated the development of a national innovation strategy. In fact Swedish ministries are traditionally very small. Instruments which execute the government policies are agencies: we have some six hundred government agencies. If you take research funding agencies there are 27 of them compared to just one in Norway. It’s a fragmented system but that’s the way it is. It is different, it’s not better or worse, it is just different, and it also depends on what country you compare it with.

Meanwhile agencies like VINNOVA are much more autonomous than agencies in other countries. We get sort of directive from the government but within those directives we can act pretty much we like. We also have a culture which makes Sweden an innovative country. We do not have a rigid hierarchy structure and the distances between higher management and employees are very short. In a sense it is what makes Sweden a rather dynamic country: we are fast

in making decisions. The drawback is that we also have a consensus culture where everybody has to agree before a step is taken. In the US, for example, you have somebody who takes the decision while in Sweden there should always be a group, a team to do it.

On the legal side did the government introduce any specific acts to promote innovations?

We don't have tax deductions for R&D; we don't have any tax credits... Of the recent moves there is a ruling that researchers have to report their invention. One thing that they are talking about now is innovation procurement under the Public procurement act: when you make a public procurement, part of the money should go to promote innovation. This program though has not really started yet.

What are the major driving forces of the innovation process in Sweden then?

Basically it is science: we are leading the world in the percentage of public money (some four per cent of the GDP) spent on research and development.

Compared to what it used to be ten or fifteen years ago how did the innovation system in Sweden change and what were the latest trends on this change?

First, I would say the government is playing a more and more active role in promoting innovations; twenty years ago it completely relied upon multinationals and the public sector, now it is different. Second, small and medium-size enterprises open more and more toward innovation and innovation management, and they are encouraged to do so. The government still does not have a specific innovation policy, but they have now initiated the development of a national innovation strategy. I hope it will improve regulations for small and medium-size enterprises as well. In the framework of this strategy a broader focus is now being developed on knowledge/technology transfer, not just "innovation". Education, research and innovation are now regarded and addressed together as "the knowledge triangle".

What hinders the innovation process here?

I believe a real entrepreneur will always find his way but we lack resources of venture capital. Besides, internal market is small: the bulk of what we produce we export. There also was a report on why do people start businesses in Sweden. It's not really to become rich, it's for other reasons: it's freedom to do what you like, freedom to realize oneself. These are different incentives than getting rich. And I would say we have a pretty large public sector, and, of course, that prevents a bit because competition in public sector is hardly a driving force. Add to this the Employment protection act which effectively slows down the job market: you cannot just pick up most talented and innovative cadres and promote them to the top positions, nor can you willingly get rid of bad employees. In Denmark for instance they have a completely different system of safety and security in the job market. In Sweden security means that once I have found a job I can keep it. In Denmark on the contrary it means that I can find other types of comparable job, so it's still safety and security but from different perspective. It makes companies much more dynamic, flexible and effective, and people move around between companies and academia to a much larger extent than in Sweden, here we don't have that mobility at all, and that's a drawback. What also hinders the innovation process is difference in culture between academia

and the business world, there is a gap that we need to close. It is changing though, and changing surprisingly fast.

I also think as a nation we are a bit risk-versed, the question is not so much whether I'm scared of failure, but rather do I dare to try before I analyze it completely. A tradition at least for government agencies is before they start do something they do analyses, come to a conclusion, evaluate a project, implement a project, and that may take three years and you are late to the market. Now it is much quicker: in a couple of weeks after you decide on your framework just go out and try it, if it fails try something else. At VINNOVA the managing board no longer demands large reports to make decision, just one page, that's it. But you have to report much more often. We say we are very good at designing and engineering, we are pretty good at marketing and we are bad at selling – that's a Swedish culture.

How important are technological and science parks in Sweden?

They are very important. It was a major trend in recent years to promote science parks and incubators. If you take IDEON for example they have an innovation system of their own: they have incubators, the park, the university, researchers and they have companies around – all this combined make an innovation system. If managed properly and professionally it can be very efficient. Now more regions start building their smaller regional innovation systems. Also, I would say there is a trend of making science parks operate more like clusters. With our Swedish model where we put emphasis on creating spin-off companies and connecting universities and businesses, of course they are very important.

Kista Science City thanks to Ericsson's and other companies' presence is a valuable contributor to IT and Telecom development. It was transformed from a rural area via a military training ground into today's high-tech centre for Stockholm and Sweden active to create a close and profound collaboration between the business community, university/research and public sector players. With over a thousand companies, five thousand students and 1100 scientist in Kista Science City it is unique, and nothing of the kind exist anywhere else in Sweden. Uppsala Science Park is an important center of pharmaceuticals and biotechnology. They are huge now occupying 400 thousand square meters.

Looking to the future what do you think will be the major trend in development of the innovation system in Sweden?

I think we will get a national innovation policy and an innovation minister. I hope organizations will be better at taking care of the assets they got and that we get a more efficient knowledge transfer process. Now we serve two ministries – Ministry of Enterprise and Ministry of Education and Research, but we haven't got a strategic plan. I also see universities playing a bigger role: they have a better support system, a knowledge management platform. A hopeful scenario is that they start working more closely with medium-size enterprises. I mean, we are really good at starting spin-offs, but I think we should improve implementing new ideas in already existing companies in order to help them grow further. I also got a feeling we are moving away from teachers' exemption because the number of countries in the world that stick to that system is visibly decreasing. And I also believe the importance of SNITTS will grow. We are trying to change the culture, change attitudes within the university and business sectors, make them meet and collaborate.