

TECHNOLOGY FORESIGHT – 3
Swedish-French seminar, December 12, 2007
**Foresight Activities and Evaluation Policies as Instruments
for Priority Setting in the field of Science and Innovation**
– an exchange on the state of the art in France and Sweden
in the context of the upcoming EU-presidencies of
France, the Czech Republic, Sweden and Spain

The seminar was the third to be arranged by the Swedish-French Association for Research (AFSR) in close cooperation with the Swedish Ministry of Education and Research, the Swedish Ministry of Enterprise, Energy and Communications, and the French Ministry of National Education, Higher Education and Research.

The topic on this occasion was “Foresight Activities and Evaluation Policies as Instruments for Priority Setting in the field of Science and Innovation – an exchange on the state of the art in France and Sweden in the context of the countries’ upcoming EU-presidencies”. The seminar was held on 12 December 2007 at the Royal Swedish Academy of Engineering Sciences (IVA). Participants included both researchers and senior officials from ministries of research and research management councils: in all, a total of 43 attendees. The Czech Republic and Spain had also been invited to send delegates to the seminar (Mr Karel Klusáček and Mr Milos Chvojka of the Czech Ministry of Education, Youth and Sport; and Ms Evelina Santa of the Spanish Ministry of Education and Science) ahead of these countries’ upcoming EU presidencies.

The welcome address was given by Mr Olof Sandberg, Senior Adviser at the Swedish Ministry of Enterprise, Energy and Communications, and His Excellency Denis Delbourg, Ambassador of France to Sweden. There then followed two sessions and a general discussion by way of conclusion.

I – The first session outlined current R&D policies in the respective countries and the strategic thinking behind the priorities established for the different national research policies.

Mr Peter Honeth, State Secretary to Sweden's Minister for Education and Research, Mr Lars Lejonborg, began by underlining the need for increasing the financial resources invested in research, even in Sweden, which is already well to the fore with regard to fulfilling the Lisbon Criteria. Currently much of Sweden's research is funded by trade and industry, but this creates a climate of vulnerability as this kind of support for R&D activities can easily be transferred across national borders. For this reason, the state needs to increase its investments in research. Mr Honeth then outlined the most crucial issues facing Sweden with regard to the funding and control of national research. He pointed to four areas which, in his opinion, are important to focus on. These referred to the need to develop quality assessment criteria to steer funding and grants to research projects not only through research councils and authorities, but also in the form of more broad-based, long-term financial commitment to the universities in ways that promote quality and provide an incentive for the universities to establish themselves as a "brand". Other priorities concerned research into the changing needs of society, research that is receptive to Swedish trade and industry's knowledge needs, and initiatives that promote innovative and strategic research in areas of development where Sweden is particularly well placed to assert its strengths in an increasingly competitive international arena.

Mr Honeth argued that this is predicated on the universities' ability to adopt a more autonomous approach to their research responsibilities within their own spheres of influence, but he did not have any ready-made model for how this could be achieved. While he acknowledged the scepticism towards general classification systems, such as the Shanghai Classification, that have been adopted for ranking universities and research institutes by academic quality, he nonetheless claimed that it is impossible to ignore the need for such systems and advocated the urgent development of classification systems based upon relevant local and European criteria.

Mr Björn von Sydow, President of the Swedish Research Council (VR) and a former Speaker of the Swedish Parliament, gave a personal summary of the development of the Swedish research system and talked about the reorganisation of the national research councils that took place in Sweden in 2001.

Following this, the main players in Sweden's research council organisation gave a brief orientation of their respective mandates and the ways in which they work within the Swedish research landscape. Mr Per Eriksson, Director General of the Swedish Governmental Agency for Innovation Systems (VINNOVA) emphasised the importance of "free research" as the only guarantor of true innovation. VINNOVA earmarks 10 percent of its funding for "unforeseen" projects (i.e. open, autonomous research projects) and liaises regularly with the Swedish Research Council (VR) about the allocation of funds for free research.

An introduction to the organisational structure and operational activities of the Swedish Research Council (VR) was provided by Professor Pär Omling, Director General of the Council. In conclusion, Mr Rolf Annerberg, Director General of the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (FORMAS), which is one of two needs-oriented research councils in the new research council organisation, presented his council's mandate and the working methods it employs.

The French contributions to the seminar were coordinated by Mr Michel Gaillard, Director of the Office for European Issues at the French Ministry of National Education, Higher Education and Research (MENESR). He introduced Ms Laure Reinhart, Director of the Strategy Unit at MENESR, and Professor Rémi Barré of CNAM, the French National Institute of Applied Sciences, who is scientific leader for FutuRIS, the first foresight study of research policy, and head of the Ministry of Research's unit for surveys and future studies. They summarised the latest reforms in France, which have been implemented with the support of a new 2006 act of parliament relating to research policy, and then explained the functional divisions that have formed the basis for the new organisation. Two completely new state bodies have been established, the French National Research Agency (ANR), which is the funding agency for research projects, and the Evaluation Agency for Research and Higher Education (AERES), which is responsible for assessing the quality of research and higher education. A review has also been conducted on the country's free research institutes, and a new High Council for Science and Technology (HCST) has been created, with close links to the presidency.

II – The second session examined the role of evaluations in current research policy.

After a discussion of foresight and evaluation as a means of policy learning and priority setting, Dr Göran Marklund, Head of the Strategy Development Division at VINNOVA, gave an explanation of the various phases in a model for the evaluation of research projects that has been developed by VINNOVA, with administrative control and follow-ups for the first 1–4 years, evaluation after 4–8 years, and an analysis of the effects after 8–12 years.

Professor Ulf Sandström of the Swedish Royal Institute of Technology in Stockholm and the University of Linköping presented a statistical model for assessing the performance of research institutions, based on a further development of the simple metrics for academic research that are currently in use. This new method measures productivity at the institutions concerned but does not, at present, offer any solution to the problem of evaluating the effects of the resources that have been invested.

Professor Sandström's presentation sparked an interesting discussion on the reliability of bibliographical and statistical methods of evaluation.

Technology transfer, or the practical application within the world of trade and industry of the results of research activities, is never a simple business, not even in Sweden where the universities are accustomed to working closely with corporate partners. All four countries' representatives confirmed that this was an issue that they were struggling with. The representatives from the Czech Republic were also eager to point out that in their country it was proving difficult to attract privately financed research facilities to work with the state's own research priorities. In Sweden co-financing models have proved successful in promoting increased collaboration between privately and publicly funded research. However, according to Professor Erik Sandewall of the University of Linköping and Chair of AFSR, there is an inherent weakness in this system in that it risks generating projects with insufficient levels of value added.

The autonomy of the universities was also discussed. In Sweden and Spain, as in a large number of other European countries, research activities are largely the province of the universities. This is in stark contrast to the situation in the Czech Republic, where the National Academy of Sciences leads the way, and in France, where research facilities tend to be very large and highly centralised. In Sweden, in accordance with a "bottom-up" model where research funding is initiated by the efforts of the researchers themselves, the research councils are invested with the competence to assess and decide on the allocation of funds for major research projects, yet they are not accountable for the performance of the research. The majority of those sitting on the boards of these research councils are representatives appointed by the electoral colleges of the research community: they sit for a period of three years, after which their mandate may be extended for a further three-year period. Recent reforms in France and Sweden share similar objectives with regard to an overarching model for controlling research policy, but the two countries have chosen very different points of departure in seeking to achieve their similar ends. Swedish and French representatives alike expressed an interest in seeing whether the reforms that have been initiated will lead to similar developments, or whether parallel or alternative paths of development will evolve from these reforms. A Swedish investigation to evaluate the current organisational structure of the research councils will present its findings and proposals for the Swedish system during the spring of 2008.

Ms Evelina Santa explained that the main challenge relating to the way research is organised in Spain lies in the way resources are coordinated at regional and national level. After a tradition of turning to Latin America with joint programmes that have also included Portugal, the Spanish are now increasingly orienting themselves

towards European collaboration, with increased state funding and major investments in research infrastructure.

Professor Uno Svedin, Director of International Affairs at FORMAS, concluded the second session with a presentation of a European foresight analysis of the agricultural sector. The presentation was based on a project undertaken by the EU's Standing Committee on Agricultural Research (SCAR), which has introduced an element of political openness into the analysis. Without delving too deeply into a discussion of the issue *per se*, participants were in broad agreement about the importance of such openness, even if it should be limited to certain stages in the process. This example from agricultural policy, which was subsequently commented by Mr Pascal Bergeret from the French Ministry of Agriculture and Fisheries, was very well received by those present.

III – The day's seminar was brought to a conclusion by Mr Bjarne Kirsebom, Minister of Research at Sweden's permanent representation to the EU in Brussels, who proposed that the methods for evaluation, assessment and future analysis should be made the main thread for the debates on research policy to be conducted under the French, Czech, Swedish and Spanish EU presidencies.

All participants expressed their satisfaction at the high quality and value of the presentations and of the contributions to the discussion that were made during the seminar. They also drew the conclusion that current national structures are considerably better developed than the institutions that exist at European level. There was also general approval for the proposal to arrange a fourth meeting next spring in Paris in order to continue the discussions that have already been initiated and to take the opportunity to examine further case studies.

