THE ROLE OF THE UNIVERSITIES IN THE EUROPE OF KNOWLEDGE Response by the Association of Swedish Higher Education to a communication from the Commission of the European Communities

General comments

The Association of Swedish Higher Education (SUHF) welcomes this initiative of the European Commission to increase public understanding of the importance of universities for the development of Europe. The communication focuses on relevant and challenging problems that need to be addressed energetically. This must be done with a clear appreciation of the specific values and ways of functioning that characterize universities.

There are many kinds of organizations for education or research. SUHF has both HEinstitutions with the right to award doctoral degrees and others that lack this right as members. As both categories certainly have important roles in the Europe of knowledge as HE-institutions, they are included under the term universities. The defining property of a university is its combination of education with research, the direction and quality of which depends on values emerging within the international society of scientists and scholars. Supreme among those values is the quest for truth and truly new knowledge. Although the definition of truth is in itself a topic of inquiry, science does not acknowledge any higher norm.

Because important new truths are hard to come by and the process of discovery constantly threatened by error of various kinds, the overriding method for advancing scientific knowledge is the intense scrutiny of research techniques and results by free communications, debates, and collaborations throughout the international academic world. The concepts of science and scholarly endeavour are logically prior to that of the university as an institution. The top priority of any university worthy of its name must therefore be to secure its cultural integration in the international community of scientists and scholars.

The role of the universities in the Europe of knowledge is of course not confined to the sciences that are generally considered to generate economic growth. The communication creates the impression that only natural and engineering sciences are responsibilities of universities. That being said, the task of promoting the political and economic goals of the European Union - explicitly in competition with other international powers, for example the United States of America – is certainly compatible with the functioning of high quality universities. However, for universities to be able to participate wholeheartedly and productively in that task, it must be generally acknowledged that their ultimate quality norms cannot be subordinated under specifically European values. An outflow from the Renaissance and the Enlightenment, the necessary spiritual openness is an important part of Europe's historical legacy to the world. The successful mobilization of the European universities for the political cause of Europe presupposes that organizational and economic reforms do not threaten this hierarchy of values but protect and reinforce it. We want to stress the importance of involving the students deeply in the processes that should lead to stronger European universities. That being said, SUHF can largely agree with the analysis presented in the communication. In the following, some comments are made on the specific questions raised.

Specific questions for debate

5.1.1. Increasing and diversifying universities' income

The communication clearly spells out that the European universities are under-funded, jeopardising the quality of research and teaching as well as the possibilities of attracting and keeping the best talent. Considering the budgetary constraints in the member states, it seems essential that the real role and economic situation of the universities can be made a political issue of greater significance in the general debate. Organizations of companies, associations of employers and trade unions should be made more aware of the declining competitiveness of European Academia so as to help fostering the public understanding of research and higher education as decisive long-term investments for the common good.

The experience of fundraising for the benefit of universities is limited in Sweden, as only two universities have so far run systematic fund-raising campaigns of some magnitude. Clearly, however, this source of income can only be of marginal importance as long as the fiscal legislation is discouraging. There is, of course, no self-evident academic opinion as to how taxation should be best designed. Yet, it is worth emphasizing that the combination of insufficient public funding with tax laws discouraging private donations creates a financial dilemma that cannot be eliminated by the universities themselves.

It is important to have long term "free" financing guaranteed from either government sources or other funds to be able to make long term strategic plans and commitments. The view that the results of research and higher education are public good makes it reasonable to expect substantial public money invested in these fields.

Although an increased participation on the markets of education and research services is of interest for other reasons, it cannot solve the problems of under-funded universities. The revenues from non-traditional market operations would simply have to yield unrealistic profits in order to compensate for the suboptimum ordinary public funding.

5.1.2. Using the available financial resources more effectively

A high 'drop-out' figure ought to encourage investigation of its causes, but it seems necessary to warn against hasty conclusions. The usefulness of academic studies in relation to the needs of the individual student and society may be greater than is indicated by the official statistics. If the perspective of life-long learning is taken seriously, it must be acknowledged that modern society and modern students demand more flexible study programmes than those offered in the past. Limited studies with a real application in mind may sometimes be more important for the student than meeting all the demands of a rigid traditional curriculum. Against this background, improved methods for assessing and documenting the real effectiveness of higher studies are needed.

The mismatch between the qualifications offered by universities on the one hand and those demanded by students on the other is always a problem. The extent to which it can be solved by the universities themselves depends on the needs of society at large. If the supply offered by a university matches the demands of neither the students nor society, resolute measures should be taken by the university to adapt accordingly. However, if, as is for example presently true for the natural sciences in general and chemistry in particular, society needs more educated people than there are students willing to take the courses offered, a case can be made for more focused political initiatives than has been usual.

Attention must then be given to the factors that really determine the preferences of students. Although the prospects of employment and salary should not be neglected, it seems clear that softer and less materialistic prestige values are also important. For that reason, education at all ages and levels should be understood as an integrated system in which the role of the universities cannot be analysed in isolation. It may also be necessary for state governments to secure the funding of strategically significant subjects in spite of a temporarily weak student interest.

Without going into detail, it can be taken for granted that collaboration between European universities would benefit from the type of commitments that are expressed by the signatories of e.g. the Bologna declaration.

Together with several public and private funding organizations, SUHF has recently performed a detailed study of the costs of university research. The immediate purpose was to resolve uncertainties as to the realism of various overheads. The study indicates that great efforts must be made to obtain a transparency that can achieve widespread confidence so as to sustain a common view among donators and recipients. Consorted European efforts in that direction would seem desirable although the foreseeable technical and psychological difficulties are considerable.

5.1.3. Applying scientific research results more effectively

As is evident from the excellent research performed in many industrial companies, there is a substantial overlap in values and understanding between the world of commercial enterprise and that of academic idealised truth-seeking. Therefore, it seems quite feasible an objective to enhance the commercialisation of university research. Experiences in Sweden clearly indicate that many teachers are interested to work in that direction. By and large the university boards and leaders are also willing to seek new solutions to the organizational and administrative demands that such a development requires. The rate-limiting factor in this process of development is neither a shortage of exploitable scientific ideas nor a weak entrepreneurial interest but quite simply a lack of capital, especially seed capital for the most immature stages of the spinning out of new companies.

While Swedish universities in recent years have been quite willing to accept the idea that the commercialisation of academic research is within their legitimate responsibility, there may soon be time for a thoughtful evaluation of the experiences. Although the goal of commercialisation does not contradict that of idealistic truth-seeking, the practical balancing of administrative decisions in favour of these goals may involve quite tangible conflicts. It is in the long-term interest of society to support the ability of universities to uphold and adhere to the appropriate order of priorities. It would seem prudent to realize that universities under-funded for their primary tasks may have less than optimum strength in that respect.

5.2.1. Creating the right conditions for achieving excellence

Although there is probably wide-spread consensus that the 'aim must be to bring all universities to the peak of their potential', differences of opinion are likely to emerge as soon as the potential of a specific university is to be decided upon. As pointed out in the communication, 'excellence does not grow overnight' but requires long-term vision and doggedness. Given these conditions, history shows that excellent institutions can be erected by political will from a start of virtually nothing. Thus, it is an inescapable conclusion that the number, localization and size of excellently performing universities must always be the result of both overriding political decisions and the internal skill of academic staff and administrators.

The strongest and intellectually most satisfying means of promoting the development of scientific and scholarly excellence among politically identified institutions is to allow a substantial fraction of their research budget to be allocated according to some long-term scheme of peer review. Taking notice of international examples in that direction, the member universities of SUHF have recently adopted such a proposal to the Swedish legislators.

As regards the conditions for efficient management, accountability and interdisciplinary capability, SUHF can only agree that professionalism and flexible responsiveness to external and internal needs are mandatory. Under a fairly liberal legislation concerning the internal organization of universities, such as in Sweden, these matters are clearly the responsibility of the leadership of each university.

5.2.2. Developing European centres and networks of excellence

The idea that excellence is best achieved by concentrating the resources to fewer, more specialized universities is both right and wrong, encouraging and dangerous. It is, of course, highly desirable to avoid spending scarce money on poorly performing research groups and institutions. Strategically significant grants should be allocated according to the quality of the recipients, which is in turn best assessed by peer review. Such principles will in a natural way encourage the concentration of resources and a university system structured according to excellence.

On the other hand, it is a mistake to believe that an *a priori* concentration of resources will *per se* create or stimulate academic excellence. With the exception of certain areas of science, where the costs of investment in big equipment are especially huge, the idea that size and specialisation afford a more or less automatic advantage represents an unwarranted analogy with contemporary views of effectiveness in big industry.

In fact, a systematic policy of top-down concentration of resources runs a serious risk of inducing easily observed activity at the expense of real academic quality, and of establishing rigid and intellectually narrow institutional structures with poor capacity of adapting to the flow of ideas in rapidly changing science. Although administrative

effectiveness and planning are important, science and scholarship are also vitally dependent on other cultural qualities, such as an appreciation of the unplanned and unforeseen new knowledge. In a short-term perspective, such softer values can perhaps be disregarded in order to promote a concentrated effort on increased effectiveness. In the long run, however, they can only be dispensed with at the price of cultural stagnation.

The best mechanism for balancing the interests of both short-term effectiveness and long-term academic development would seem to be the establishment of a European research council, the operations of which should be based on the principle of excellence as assessed by peer review.

To a certain extent, networks of excellence have always been an aspect of the international character of the scientific community. Quite possibly, a politically initiated stimulation of more intense networking among European universities and researchers can contribute to the goal of integrating Europe. It seems more difficult to judge the specific contribution of such a programme to the enhancement of scientific excellence. Perhaps the experience from the frame work programmes is now sufficient for this question to lend itself to some stringent analysis.

5.2.3. Excellence in human resources

It is generally believed that the existence of inspiring models of both sexes is important for gender equality in the recruitment of people. If that is correct, an increased recruitment of women to scientific and technical careers may require that students be better introduced to the already active women teachers and researchers. For example, special economic support of women as supervisors, of research students with women as supervisors, and of graduate courses led by gender equalized teams of teachers may be worth trying. Of more fundamental importance is probably that the pupils in the ordinary school system, from primary school and onwards, are given improved opportunities of appreciating not only the usefulness but also the charm of science. They should also be taught and shown that these subjects are as natural for girls as for boys.

The relative scarcity of post-doctoral positions at European universities is essentially a reflection of their poor economy in general and could be remedied accordingly. In contrast, the lack of post-doctoral positions outside the universities is not only a matter of economy. For example, national legislators could prescribe that a certain fraction of the teachers in the general schools should be doctors. Such was once the situation in Sweden.

5.3.1. A broader international perspective

Two factors may go a long way to explaining why European universities are less effective than American ones in recruiting students on the international scene. Firstly, the Lingua Franca of our time, English, is the typical language in the United States but not in most of the European countries. Secondly, the better economy of the best American universities quite naturally provides for more attractive institutions. This lastmentioned fact also influences the ability of the European universities to attract academic staff of great excellence. Also, American universities can recruit scientists from a whole continent without barriers as laws and social systems are concerned. The system of student fees is another difference where the divergence in views in different European countries in general does not give European universities the same economic possibilities as the American counterparts.

5.3.2. Local and regional development

In order to contribute in a sustained fashion to local and regional development, universities must be able to combine the taking cognizance of local problems with a keen appreciation of the fact that scientific and scholarly quality is not decided locally but on the international scene. Therefore, success in balancing locally and internationally oriented efforts may depend on how well the profile of the university matches the socio-economic structure of its environment. Good communications and a flow of ideas between the university and other actors will help to optimise this balance. Experiences from the northern part of Sweden indicate that the Structural Funds have stimulated cooperation and mutual understanding between universities and other actors in the region.