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**Main Issues in European  
Higher Education and Research**

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## Issues in European Higher Education and Research

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Europe, as a continent, and in its higher education and research sector have entered a period of profound change. The process of European integration, launched in 1957 with six countries in the European Economic Community, entered into a new phase at the turn of the millennium with the introduction of the euro as a single currency for twelve countries and with the forthcoming accession of states from Central and Eastern Europe, enlarging the Union to twenty five countries.

In the same time period, globalisation and the very rapid progress made by science and technology have further increased the climate of competition and uncertainty for every man-made institution, particularly universities. Consequently, the latter are under increasing pressures to adapt to this rapidly changing environment, not only by adjusting their normal activities of teaching and research but also by reorganising their structures, something they are not well prepared to do.

The higher education and research sector has also been challenged by two political initiatives. The first, launched in 1998 in Bologna by the Ministers of Education of twenty-nine countries, aims at creating by 2010 a European higher education area without borders: this is the Bologna process. The second initiative was taken in 2000 by the Council of Ministers of the European Union: it aims at creating a European research area, with the explicit ambition that Europe should achieve parity with the United States in research.

These changes, economic and social changes, as well as these two initiatives, have given rise to a series of reforms, some with deep consequences. Governments have generally initiated these reforms, while universities, organizations and individual universities eventually accepted a proactive role. The clear objective is to improve the competitiveness of the European economy by means of promotion of science and technology. To improve efficiency of the higher education and research sector, overall and at the institutional level. Universities themselves are reaffirming their central role for the creation of knowledge and the training of researchers.

The purpose of this paper is to describe briefly these changes and to try to draw some conclusions. The topics to be discussed are: Europe and its higher education sector (section 2), the European Higher Education Area (section 3), the European Research Area (section 4), accreditation and quality assurance (section 5), the organization of the higher education and research sector (section 6),

governance and management of institutions (section 7), financing of higher education institutions and equal access (section 8) and finally, brief comments on the present negotiations for the General Agreement on Trade and Services (GATS) (section 9).

### **Europe and Its Higher Education and Research Sector**

When considering anything happening in Europe on the political as well as the higher education front, it is essential to realize that Europe is not one big country with a single language like the United States. Rather it is, according to the Council of Europe Cultural Convention (2003), a conglomerate of 45 countries, some big like Germany, some very small like Liechtenstein, Luxembourg or Slovenia; and characterized by a broad cultural diversity regarding language, history, political systems, economic development, attitudes to work and studies, social inspiration and religious backgrounds and faith.

It is not surprising that the higher education and research system of Europe is also extremely diversified. Each country has its own system and, within federal countries, there are even differences between states. In particular, some countries have a binary system with a relatively clear division of missions between the universities and other mostly teaching and vocational institutions; in other countries the system is unified though this does not mean that all institutions are alike. In some countries, basic research is done exclusively within universities, whereas in other countries part or most of the research is done in separate laboratories or centres. Moreover, the type and intensity of research done in private firms also differs from one country to another.

Traditionally, the European universities are public. This means that they are mainly financed and controlled by the state, which however grants them more or less autonomy. The political earthquake provoked by the fall of the "Berlin wall" in 1988 was followed in East and Central Europe by the creation of more than 1000 new private universities, most of them focused on teaching and greatly dependent on teaching staff employed in the public sector. The size of the European institutions varies enormously, from 100 to more than 100,000 students. Moreover, while a large majority of the approximately 1000 Universities claims to do fundamental research, the geographical distribution of quality research is quite imbalanced with most of the top research being concentrated in the north-west quadrant of the European continent.

### **The Creation of the European Higher Education Area: the Bologna Process**

*Main Characteristics* Development of a European higher education area is certainly the issue that has gained most attention, not only within the higher education community, but also in the political arena and from the general public. The idea was launched in May 1998 by the Ministers of Education of France, Germany, Italy and the United Kingdom at the celebration of the 800th anniversary of the Sorbonne University in Paris (Sorbonne Declaration, 1998). Realizing that the

European higher education system was anything but transparent and that mobility of students between countries, and even between universities in a single country is impeded by numerous barriers, they pledged to take the necessary measures to overcome these difficulties.

Initially launched independently from the European Union (EU), this initiative had obviously to be adopted by many other countries to reach its objectives. This took place a year later in Bologna where twenty-nine countries signed the "Bologna declaration" (1999). The Ministers of Education convened again two years later in Prague to take stock of the first phase of implementation and to refine the project (Prague Communiqué, 2001). Four additional countries joined the movement on this occasion. Another meeting will take place in September 2003 in Berlin (Berlin summit 2003) and a future one is already planned for 2005

*Aims of the Bologna Process* The aim of the Bologna process is to create a higher education-space-without border in order to promote the mobility of students and teachers. The motivation is to improve the quality of training, to develop the sense of European community and to make Europe more attractive to overseas students. Indeed, at present it is extremely difficult for overseas students to receive for Europe any information comparable to the standard they are used to with the American system of bachelor's and master's programmes. The aims of the Bologna process are more ambitious than those pursued by the well-known mobility programmes of the European Union like *Erasmus* and *Socrates* (2003).

*The Tools of the Bologna Process* The central idea of the Bologna process is articulated around four pillars. The first and main pillar is that each country adopts a system articulated around bachelor's and master's programmes, in order to guarantee its transparency. The first cycle, the Bachelor's, should be conceived as a first period of higher education, which should also facilitate students entry into employment: learning basic skills accompanies the transmission of scientific knowledge and methodologies. The second cycle, for a master's degree, should allow students to deepen their knowledge, either by specializing into a discipline or embracing a multidisciplinary or interdisciplinary approach. The master's programme is basically conceived as giving students the opportunity to deepen scientific knowledge, but it can also be considered to be vocational.

The second pillar is the generalized introduction of a credit transfer and accumulation system. Development of the European Union programmes *Erasmus* and *Socrates* has encouraged the introduction of the European Credit Transfer System (ECTS), which attributes to each course a certain number of credits corresponding to the effort required (ECTS, 2003). This is a very useful tool to validate the credits obtained during a semester or a year spent abroad and to take them into account towards obtaining a degree. The new system, which has yet to be put in place, is more ambitious as it should serve to *accumulate* credits for students who study in two or more universities and receive their degrees from the last one. The system should be able not only to take into account the effort made,

measured by the amount of time spent to get the credits, but also the level of the course. According to the Bologna Declaration, a “Bachelor” degree should count between 180-240 credits and a “Master” degree between 60-120 credits, the “Master” degree corresponding to an overall total of 300 credits.

A third pillar – and challenge - of the Bologna process is recognition of institutions by other institutions. It is certainly important to have a common measure of the effort made by students; however, this is not sufficient to take into account the differing quality and the level of requirements of individual institutions. An institution with a high level of requirement will be unwilling to accept students whose credits have been acquired in an institution that is not considered to be at a relatively equivalent level. In this respect, the key words are *accreditation*, which means that a formal process assesses that an institution has reached a standard of quality that can be considered as sufficient; and *quality assurance*, which means that universities should pay greater attention to improving their quality in teaching and research. As these two issues have become major issues themselves they are discussed separately in section 5

The issue of recognition of acquired knowledge had been approached earlier and independently from the Bologna process. The Council of Europe and UNESCO jointly developed a convention of mutual recognition of years of study based on a set of principles accepted by all countries signatories to the convention (1997). Moreover, the European Union Commission, the Council of Europe and UNESCO have developed the idea of a “Diploma Supplement”, that is a standardized document annexed to a final diploma where the programme of studies is explained with some details. Developed first of all to respond to the needs of potential employers, these Diploma Supplements, if used on a broad base, might become another instrument to build trust and transparency between institutions.

*Difficulties in Implementing the Bologna Process* Launched in 1998, the Bologna process has now entered its implementation phase. We can however observe great disparities. In some countries, the State has passed laws for its implementation; in others, the Universities or their national organization have been left free to develop their own strategies. Although it is obviously too early to make a judgment, it appears that implementation is exposed to a wide range of difficulties and shortcomings. In particular, the Bologna Declaration itself leaves room for different interpretations.

- In most countries, universities, and even faculties and departments, benefit from autonomy in conceiving their teaching programmes; while this is basically a good thing for higher education, it imposes limits to the ability to reach a supra-national objective.
- The process is very decentralized by the need for implementation by more than thirty sovereign countries.
- The process has no permanent leader. Up to now, leadership has changed hands between those countries that hosted a ministerial summit; although the EU was not involved initially it is now exercising increasing influence.

- The Bologna Declaration itself leaves room for interpretation. In particular, it leaves open the length or the effort required to achieve a degree, that is 180 to 240 ECTS credits for the “Bachelor”, and 60 to 120 for the “Master”. It appears now that this lack of precision – which was due to a necessary political compromise – has opened a wide area for interpretation. Some countries or universities will develop systems yielding a “Bachelor” with 180 credits, whereas others have chosen 240 credits. Moreover, even if the Bologna declaration considers it normal that many students will quit university with a bachelor’s degree to enter into a professional activity, in some countries or universities, and in many student organizations the normal end to university studies is considered to be a master’s degree. This would have the effect of prolonging the duration of studies, creating serious financial consequences, and decreasing the level of requirement, with a negative impact on PhD and research training.

It is regrettable that many universities apparently do not realize that implementation of the Bologna process provides a major opportunity to revise the pedagogy of their programmes. It offers in particular an opportunity to promote an education process focused on learning instead of teaching.

### **The European Research Area**

*The Idea of the European Research Area* After observing the continuous rapid growth of the United States economy over more than a decade, Europe took cognisance that this success was attributable to the facts that knowledge was becoming a production factor as important as labour and capital and that information technologies were becoming crucial tools of development. The European Council, that is the Council of Heads of States of member countries of the EU (2000), decided in 2000, following a recommendation of the European Commission and the Council of Research Ministers, that Europe should increase its investment in research and technology development so as to become the leading continent in this respect by 2010. The basic strategy proposed was to create the “European Research Area” (COM (2000)6 and (2000) 612 final).

The conviction is that, in order to release all the potential of European research, it is essential to integrate national efforts by encouraging researchers to work better together, by promoting cooperation between university and industry and by lowering the administrative and political barriers to that cooperation. In other words, the long-term strategy is to create a borderless European research area.

*Main Tools and Initiatives to Create the European Research Area* The tools enacted or considered to reach this target are manifold.

- The first was to introduce two new initiatives starting with the Sixth European Framework programme 2002-2006 (2002): networks of excellence, which aim at pooling a critical mass of competence and skills in order to advance knowledge on a defined theme; and creation of

integrated projects in order to reinforce European competitiveness or to contribute to the solution of important societal problems through the mobilization of critical masses of research and technological development resources and skills and assign them to clearly defined and precise objectives.

- The second tool conceived an integration, at least partially, of the European Union and the national research programs in order to break the national tendencies to protectionism. This remains a long-term target. However, the creation of a European Research Council, which is presently on the agenda of a few countries and research organizations, could contribute to achieving this target. This Council would act as a trans-national research funding body, but would be set up at the European level to finance European projects, essentially in fundamental and curiosity-driven research. As with other similar initiatives, the support of the potential beneficiaries depends mainly on whether there is to be additional funding or whether the funds appropriated by this new body will be drawn from other institutions supporting research. Access to new money is an essential element as the ratio of EU funding for research to total expenditure on research in Europe is only 5%.
- Very recently, the European Commission issued another communication “More Research for Europe, Towards 3% of GDP” (2002). This states that the only way to reach the target set up in 2000 is to increase the general provision for research to 3% of GDP and that a great part of the additional effort should be done by the private sector. An implementation plan has just been published (2003).

*Difficulties Encountered* The creation of the European research area raises not only a question of funding. The European paradox is that the level of fundamental research is excellent, probably as high as in the United States, but the transfer of knowledge towards new applications lags. This is partly due to the division of Europe into its numerous sovereign countries. Even within the EU, this requires that each separate European country takes its own political and administrative measures to:

- Reduce barriers to the mobility of researchers;
- Promote transfer of knowledge, probably by creating European patents;
- Clarify the ownership of intellectual property rights;
- Find new ways to finance research;
- Develop a set of rules to secure fair university-industry collaboration;
- Attract the best researchers worldwide;
- Avoid bureaucratic behaviour, which already consumes too much time of the best researchers.



## Accreditation and Quality Assurance

*Justification of Accreditation and Quality Assurance* The quality of teaching and research has become one of the most important issues at governmental, as well as institutional levels. This is certainly a direct consequence of the fact that the world has become increasingly competitive and uncertain. Therefore, all human institutions, even universities, are under increasing pressure to respond to the needs of society and to do so efficiently and equitably. Moreover, as has been discussed above, one key condition to the success of the Bologna process is that universities need to be able to trust one another in order to accept students coming from another university to complete their studies.

The situation of universities regarding quality is particularly complex. Centuries of experience have shown that universities not only must be responsive to the needs of society, but also should be responsible towards society (Grin, Harayama and Weber, 2001). However, they have also shown that universities best serve their community or society at large if they are autonomous and free from public and/or private interventions. Moreover, universities are very costly for the state and/or for the students. Last but not least, experience has also shown that universities (and their key members) can do things badly or fall into lethargy.

It is therefore legitimate that the sponsors of universities and other stakeholders require that they are accountable, as well as transparent, that they guarantee a minimum standard of quality and, better, that they make efforts to improve their quality. Obviously, the latter should be a permanent preoccupation of the universities themselves.

*Aims and Difficulties of Accreditation and Quality Assurance* Basically, university evaluation can pursue four aims:

- **Accreditation**: check if the minimal standard of quality is attained - this is essentially a matter of consumer protection;
- **Benchmarking or ranking**: establish the level of quality of an institution or programme in comparison with others;
- **Quality assurance**: encourage the development of an institutional culture for achievement and maintenance of high quality;
- **Measure performance**: evaluate the efficiency and effectiveness of an institution in fulfilling its missions.

To run a program of accreditation or of quality assurance raises many difficulties.

- It can become very costly as was shown in England with the initial very ambitious system now abandoned.
- It is very labour intensive, which means that it becomes rapidly difficult to find enough independent experts.

- It can become very bureaucratic. A heavy and bureaucratic process discourages university staff (teachers and researchers), instead of encouraging them to become more responsible in accepting that quality assurance effort may be to their advantage.
- The good usage of evaluation results is not always clear. Should a bad evaluation provoke a sanction or special measures of support? In other words, should a link be established between evaluation and funding?
- Quantitative measures (performance indicators and ratios) are difficult to interpret. First, the contributions of higher education and research to society do not appear fully in the short run, but only in the medium and longer term; second, the criteria can be misleading, that is give wrong incentives or encourage short term strategies.

*Provisory Conclusions on Quality Assurance* It is necessary to have a clear idea of the objectives and objects of evaluation. Most of the confusion appears from conflicting objectives of two different types of institutions: new institutions (public or private, national or foreign) request accreditation to guarantee that they reach a minimum standard of quality (consumer protection); whereas it may be assumed that established institutions satisfy the minimum standard but they must be firmly encouraged to pursue a strategy of quality assurance.

The quality assurance process in established institutions should pay due respect to five basic principles.

- Autonomy. The institution's autonomy must be respected and promoted, as well as its responsibility continuously to enhance quality.
- Trust. The state must be logically coherent. If it accepts that universities must be autonomous, the state must trust them to be able to take the necessary measures to assure their quality. Even so, trust does not mean absence of control; the control must be *a posteriori* and limited to the institution.
- Subsidiarity. The responsibility should always be left at the lowest level possible. Consequently, universities are best placed to control quality within themselves and evaluation agencies should determine whether they are doing it correctly. Obviously, the latter should also be evaluated.
- Pay a due respect to the complexity of the teaching and research missions of a university. The quality of a university cannot be reduced to a few tangible criteria.
- Avoid bureaucracy. It has a high cost, without contributing to the value added (*i.e.* to better teaching and research).

These principles lead to the statement that the European university association (EUA) is preparing for adoption in its forthcoming convention in Graz (2003).

### **The Organisation of the Higher Education Sector in Europe**

Although it is still taboo, discussion about the organization of the university sector in Europe has begun and will intensify under different pressures. Part of the pressure originates from political bodies: although they are often tactless, they have nevertheless the positive impact of forcing university leaders to dig into the functioning of their institutions, to find solutions to problems or to tackle delicate questions. The pressures will also remain financial as, whatever the financial situation, the needs will continue to exceed the means. New pressures will also force universities to tackle serious strategic questions or other delicate questions. Competition between institutions will grow, as the European system becomes more transparent and as it becomes easier for students to be mobile. Obviously, good universities will become more visible and therefore attract outstanding students who are sensitive to the quality of education they will receive and the status of their diploma in the labour market or in the university sector. Increased competition will also result from the falling demography of young people. Finally, development of a serious culture of quality will not only help, but also force university leaders to correct the shortcomings that will be revealed.

Discussion and even moves can be increasingly observed in recent years at both institutional and system levels. At the institutional level, we have seen the first cases of mergers between institutions, with the aim of gaining economies of scale and offering a broader provision of services. We have also observed more cases where a well-established institution is absorbing a smaller one or where two or more institutions decide to exchange departments or other subdivisions in order to concentrate their resources on their key strengths. An alternative to mergers and absorptions is the creation of networks where many universities join forces to improve collectively their provision of teaching and research services. Many networks of universities have been created in Europe, but the potential benefit of these networks has often not been fully exploited. The Bologna process and the changing environment will certainly contribute to a more efficient organization of the European higher education area.

At the system level, there is still not only a preference in favour of a binary system, but also a growing conviction that it is not possible for all universities to do research at an excellent level and in most disciplines. One of the main reasons for this is that the optimal size to do good research is increasing, in "big science" as well as in "softer sciences". This is due partly to the sophisticated equipment required and to the increasing necessity to approach scientific or societal problems with an interdisciplinary approach. In countries like England, the policy to concentrate top research on a few universities will be pursued in the near future (HEFCE strategic plan 2003-08, 2003). As described above, the Sixth Framework programme is introducing the concept of a network of excellence, which implies a concentration of excellence around teams of researchers. These initiatives mean that the

public authorities will, in a growing manner, allocate funds supporting the research base of all institutions on the basis of quality criteria.

On the other hand, universities whose staff are deeply involved in high level research, are not always the most attractive for those students who simply aspire to have an excellent training but who lack deep scientific curiosity. This allows institutions to emphasise the high quality of their teaching programmes and their pedagogy. In Europe, there is still a very strong hidden hierarchy that rates research as more prestigious than teaching. This has to change as both are equally important. The system, as well as each institution, should be flexible enough to allow for more specialization between teaching and research. This being said, it remains crucial for universities that teaching is based on research, in other words that the teachers are involved in research projects. However, only a small proportion has the capacity to benefit from the conditions necessary to work at the frontier of human knowledge, but many are capable of using, refining and applying new knowledge.

In summary, universities should consider more rigorously how they want to position themselves, which means better fixing their objectives according to what they do best.

### **Governance and Management**

The topic of university governance and management is also becoming an important issue in Europe. The reasons are always the same: fast changing environment, budget shortages and political pressure for better accountability. There are basically two dominating issues (Weber, 2001).

- The central issue is the mechanisms of control and influence by the government. As has been mentioned already, the institutional autonomy of public universities is commonly limited or threatened. One solution both public authorities and universities are exploring is to create an administrative board between the state and the institution, and give to it most or all of the powers of decision. This allows the necessary clear separation between the bodies that propose a decision, and those that make it and control it. The central person in a university, the president or rector, is either in position to make a decision, which should therefore be controlled by another body, or alternatively is in position to propose a decision, which should therefore be made by the board, and controlled by the state. When considering the composition of these boards, a delicate question is to decide if it should include members of the institution itself or if all the members should be external. There are good arguments for both solutions, but a pure system of decision and control pushes in favour of a board composed only of external members.
- The second important issue is the effort made to simplify and lighten the structure and decisions procedures. The decision mechanism in universities has always been complicated due to a willingness to apply a system of shared governance. Things became even more complicated – not to say more cumbersome – in the seventies when many European

universities introduced participation by additional stakeholders, and in particular by students. One can presently observe a move backwards aiming at streamlining the decision process to make it more hierarchical and hopefully more effective in reaching decisions, in particular unpopular ones. But this is a very challenging issue for in universities, as in no other institution, there is so much knowledge at the base of the hierarchy. Therefore there is a serious trade-off between creation of a streamlined and more hierarchical process and a necessarily cumbersome but more democratic system that allows for the participation of all those who can contribute to the improvement of the institution. Better management is becoming a must.

University activities – as are all human activities – are becoming ever more complex. Moreover, human resources, which constitute not far from 80% of total expenditure, are so costly that their action must be better supported. This is why good management counts. There are a few rules to secure good management: the leaders cannot anymore be just excellent scientists or teachers, they must also have a sense for management and be trained for that. More than any other human institutions, university management requires a long-term perspective. Finally, the use of management tools as a help to decision making has become crucial.

### **Financing and Equal Access**

Another topic of growing importance is the funding issue, and in particular the proportion of the cost of university education that should be paid by the students themselves. Some countries and the EU (2002) are recognizing today that the overall funding of universities is too low. Public subsidies have been more or less stagnating or even decreasing *per capita* in many countries over the years. Support from industry, mainly to research, although slightly increasing, has not compensated for the diminishing public effort. This is why the question of introducing or increasing students' fees is becoming increasingly a burning issue.

However, with exceptions in Spain and England, there is a strong resistance to fees. This strong resistance arises from confusion between higher education as a public responsibility and as a public good. Higher education and research can be regarded politically as a public responsibility, one consequence of which might be that it should be provided free. However, this certainly does not make it a public good according to the economic definition of the word, even if it produces externalities benefiting those who did not visit a higher education institution.

The consequences of this confusion are far reaching. First, the payment of fees by students contributes to a better allocation of resources (in both the supply and demand of higher education). Second, free access to higher education produces a regressive impact on income distribution in a country because, despite all the efforts made, the proportion of low-income children studying in higher

education institutions is still very low. The fact that this income group also pays taxes, even if these are modest amounts, means that they subsidize the studies of better-off children.

These two arguments are clearly in favour of raising fees. However, this is advisable only if two necessary conditions are met. First, to prevent fees becoming a barrier to entry for low-income groups, it is necessary to develop simultaneously a generous system of grants and/or loans. Second, many European universities fear – with good reason – that governments would use this opportunity simultaneously to reduce their own subsidy to universities, an unacceptable outcome considering that universities are already under-financed.

### **General Agreement on Trade and Services (GATS)**

The new round of negotiations to liberalize trade in goods and services will probably include education and higher education as many countries have proposed. Higher education and research is becoming more and more international and this internationalisation can take many forms:

- Cross-border supply with distance education and virtual universities;
- Consumption abroad with students studying in another country;
- Commercial presence with branch campuses and franchises;
- Delivery of programmes by teachers travelling to another country.

The higher education community in North America and Europe, represented by its organizations (*i.e.* American Council on Education, Council for Higher Education Accreditation, Association of Universities and Colleges of Canada and European University Association) has expressed its concern in a public statement (EUA 2001). This statement stresses many issues.

- Higher education and research should be a public responsibility.
- It is important that all higher education institutions are recognized and are concerned by a culture of quality.
- Students' rights to access higher education if they have the capability should be guaranteed.
- Public funding of public universities should still be possible and no obligation should be made for the State to subsidize private universities.
- The higher education and research sectors should be aware of the dangers of broadening GATS to higher education and should seek to influence negotiations through their country's representatives

## Conclusion

The previous description and analysis of what are the main issues in European higher education and research shows that the sector is in a state of flux. Often, national governments, the EU and the Ministers of Education of the majority of European countries have taken important initiatives or have been putting pressure on university institutions. Obviously, many universities are proactive, are willing to adapt to the changing environment and to enhance their quality. However, many universities remain reactive, merely seeking measures only in response to external pressures or are even in such a bad situation that they cannot react. Inevitably, the sector will change at an increasing speed. The Bologna process will be one of the key drivers, but other factors will come into play, in particular a more coordinated research policy and a greater determination of individual universities to profile themselves. However, it remains to be seen if in ten years from 2000 as targeted by the EU, the European higher education and research sector will have overtaken the American system.

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