



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 05.02.2003  
COM(2003) 58 final

**COMMUNICATION FROM THE COMMISSION**

**The role of the universities in the Europe of knowledge**

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### The role of the universities in the Europe of knowledge

#### 1. SUMMARY

This Communication seeks to start a debate on the role of Universities<sup>1</sup> within the knowledge society and economy in Europe and on the conditions under which they will be able to effectively play that role. The knowledge society depends for its growth on the production of new knowledge, its transmission through education and training, its dissemination through information and communication technologies, and on its use through new industrial processes or services. Universities are unique, in that they take part in all these processes, at their core, due to the key role they play in the three fields of research and exploitation of its results, thanks to industrial cooperation and spin-off; education and training, in particular training of researchers; and regional and local development, to which they can contribute significantly.

The European Union therefore needs a healthy and flourishing university world. Europe needs excellence in its universities, to optimise the processes which underpin the knowledge society and meet the target, set out by the European Council in Lisbon, of becoming *the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion*. The European Council in Barcelona recognised this need for excellence, in its call for European systems of education to become a “world reference” by 2010<sup>2</sup>.

However, the European university world is not trouble-free, and the European universities are not at present globally competitive with those of our major partners, even though they produce high quality scientific publications. The Communication notes a number of areas within which reflection, and often also action, is needed, and raises a series of questions such as:

- how to achieve adequate and sustainable incomes for universities, and to ensure that funds are spent most efficiently;
- how to ensure autonomy and professionalism in academic as well as managerial affairs;
- how to concentrate enough resources on excellence, and create the conditions within which universities can attain and develop excellence;
- how to make universities contribute better to local and regional needs and strategies;

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<sup>1</sup> In this Communication, the term "universities" is taken to mean all higher education establishments, including, for example, the "Fachhochschulen", the "polytechnics" and the "Grandes Ecoles".

<sup>2</sup> Barcelona European Council - Presidency Conclusions.

- How to establish closer co-operation between universities and enterprises to ensure better dissemination and exploitation of new knowledge in the economy and society at large
- how to foster, through all of these areas, the coherent, compatible and competitive European higher education area called for by the Bologna Declaration, as well as the European research area set out as an objective for the Union by the Lisbon European Council, in March 2000.

This Communication, which has been prepared in the context of the 2003 Spring European Council, invites responses to these questions from all those concerned with higher education, research and innovation. The Commission will review the state of the debate in the summer of 2003 and identify suitable initiatives, possibly in a further Communication for examination by the Education Ministers in the Education Council and the Research Ministers in the Competitiveness Council, as well as by the European Summit of Higher Education Ministers scheduled for 18-19 September 2003 in Berlin.

## 2. INTRODUCTION

The creation of a Europe of knowledge has been a prime objective for the European Union since the Lisbon European Council of March 2000. Subsequent European Councils, particularly Stockholm in March 2001 and Barcelona in March 2002, have taken the Lisbon objective further forward.

The Lisbon agenda calls for efforts from a wide range of players. These include the universities, which have a particularly important role to play. This is because of their twofold traditional vocation of research and teaching, their increasing role in the complex process of innovation, along with their other contributions to economic competitiveness and social cohesion, e.g. their role in the life of the community and in regional development.

Given their central role, the creation of a Europe of knowledge is for the universities a source of opportunity, but also of major challenges. Indeed universities go about their business in an increasingly globalised environment which is constantly changing and is characterised by increasing competition to attract and retain outstanding talent, and by the emergence of new requirements for which they have to cater. Yet European universities generally have less to offer and lower financial resources than their equivalents in the other developed countries, particularly the USA. Are they in a position to compete with the best universities in the world and provide a sustainable level of excellence? This question is particularly topical as enlargement draws nearer, considering the frequently difficult circumstances of universities in the accession countries as regards human and financial resources.

To implement the Lisbon agenda, the European Union has embarked upon a series of actions and initiatives in the areas of research and education. One example is the European area of research and innovation, to achieve which fresh perspectives have

just been opened up<sup>3</sup> and, in this context, the objective to increase the European research and development drive to 3% of the Union's GDP by 2010<sup>4</sup>.

In the area of education and training, we can mention the achievement of a European area of lifelong learning<sup>5</sup>, the implementation of the detailed work programme on the objectives of education and training systems<sup>6</sup>, work to strengthen the convergence of higher education systems, in line with the Bologna process, and vocational training systems, in line with the Copenhagen declaration.

European universities as such have not recently<sup>7</sup> been the focus of reflection and debate at European Union level. The Commission seeks to contribute to such a debate, and this Communication accordingly examines the place and role of European universities in society and in the knowledge economy (Section 3), offers some ideas on universities in a European perspective (Section 4) and sets out the main challenges facing the European universities, along with some issues for consideration (Section 5).

The Commission calls upon all players concerned (universities themselves, the rectors' conferences, national and regional public authorities, the research community, students, business and the people of Europe) to make known their comments, suggestions and points of view on the various aspects addressed by this Communication<sup>8</sup>. In the light of the contributions the Commission receives from this consultation, it will determine future action and whether to submit a follow-up communication for the Education Ministers (in the Education Council) and the Research Ministers (in the Competitiveness Council), as well as to the European Summit of Higher Education Ministers scheduled for 18-19 September 2003 in Berlin as part of the Bologna process.

### **3. THE EUROPEAN UNIVERSITIES TODAY**

#### **3.1. The universities at the heart of the Europe of knowledge**

The knowledge economy and society stem from the combination of four interdependent elements: the production of knowledge, mainly through scientific research; its transmission through education and training; its dissemination through the information and communication technologies; its use in technological innovation. At the same time, new configurations of production, transmission and application of knowledge are emerging, and their effect is to involve a greater number of players, typically in an increasingly internationalised network-driven context.

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<sup>3</sup> European Commission, Communications "Towards a European research area", COM (2000) 6 of 18.1.2000 and "The European research area: providing new momentum", COM (2002) 565 of 16.10.2002.

<sup>4</sup> European Commission, Communication "More research for Europe/towards 3% of GDP", COM (2002) 499 of 11.9.2002.

<sup>5</sup> European Commission, Communication "Making a European area of lifelong learning a reality", COM (2001) 678 of 21.10.2001.

<sup>6</sup> Detailed work programme on the follow-up of the objectives of education and training systems in Europe, OJ C 142 of 14.06.2002, p. 1.

<sup>7</sup> European Commission, Memorandum on higher education in the European Community, COM (1991) 349 of 5.11.1991.

<sup>8</sup> See Section 7 "How to make a contribution".

Given that they are situated at the crossroads of research, education and innovation, universities in many respects hold the key to the knowledge economy and society. Indeed, universities employ 34% of the total number of researchers in Europe, although national figures vary in the ratio of one to three between Member States (26% in Germany, 55% in Spain and over 70% in Greece). They are also responsible for 80% of the fundamental research pursued in Europe.

In addition, universities train an ever increasing number of students with increasingly higher qualifications, and thus contribute to strengthening the competitiveness of the European economy: one third of Europeans today work in highly knowledge-intensive sectors (over 40% in countries like Denmark and Sweden), which have on their own accounted for half the new jobs created between 1999 and 2000).

Universities also contribute to the other objectives of the Lisbon strategy, particularly employment and social cohesion, and to the improvement of the general level of education in Europe. Many more young Europeans have a higher education qualification today than in previous generations. While some 20% of Europeans aged between 35 and 39 hold such qualifications, this figure is a mere 12.5% for the 55-59 age group. If we look at the total population aged 25-64, the rate of employment of persons holding higher education qualifications (ISCED 5 and 6) stood at 84% in 2001, i.e. almost 15 points above the average taking all education levels together, and nearly 30 points more than people having completed only lower secondary level (ISCED 0 to 2). Finally, the rate of unemployment amongst those holding higher education qualifications stood at 3.9% in 2001, one third of that of persons with a low level of qualifications.

### **3.2. The European university landscape**

There are some 3 300 higher education establishments in the European Union, approximately 4 000 in Europe as a whole, including the other countries of Western Europe and the candidate countries<sup>9</sup>. They take in an increasing number of students, over 12.5 million in 2000, compared with fewer than 9 million ten years previously.

The European university landscape is primarily organised at national and regional levels and is characterised by a high degree of heterogeneity which is reflected in organisation, governance and operating conditions, including the status and conditions of employment and recruitment of teaching staff and researchers. This heterogeneity can be seen between countries, because of cultural and legislative differences, but also within each country, as not all universities have the same vocation and do not react in the same way and at the same pace to the changes which affect them. The structural reforms inspired by the Bologna process constitute an effort to organise that diversity within a more coherent and compatible European framework, which is a condition for the readability, and hence the competitiveness, of European universities both within Europe itself and in the whole world.

European universities have for long modelled themselves along the lines of some major models, particularly the ideal model of university envisaged nearly two

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<sup>9</sup> By way of comparison, there are over 4 000 higher education establishments in the USA, 550 of them issuing doctorates, and 125 identified as "research universities". Of these, some 50 account for the lion's share of American academic research capacity, public funding in support of university research and the country's Nobel prizes for science.

centuries ago by Wilhelm von Humboldt in his reform of the German university, which sets research at the heart of university activity and indeed makes it the basis of teaching. Today the trend is away from these models, and towards greater differentiation. This results in the emergence of more specialised institutions concentrating on a core of specific competences when it comes to research and teaching and/or on certain dimensions of their activities, e.g. their integration within a strategy of regional development through adult education/training.

### **3.3. The new challenges facing European universities**

All over the world, but particularly in Europe, universities face an imperative need to adapt and adjust to a whole series of profound changes. These changes fall into five major categories.

#### Increased demand for higher education

This will continue in the years ahead<sup>10</sup>, spurred on simultaneously by the objective of certain countries of increasing the number of students in higher education<sup>11</sup> and by new needs stemming from lifelong learning. This increase, which Europe's low birth rates are not expected to slow down in any great measure, will further intensify capacity saturation in the universities.

How can this increasing demand be met, considering the limited human resources (which can be expected to become a deficit, both as regards teaching staff and as regards researchers, in the years ahead) and the limited financial capacity (which does not keep in step with requirements)? How can sustainable funding of universities, constantly beleaguered as they are by fresh challenges, be ensured? It is crucially important to maintain and strengthen the excellence of teaching and research, without compromising the level of quality offered, while still ensuring broad, fair and democratic access.

#### The internationalisation of education and research

The momentum of internationalisation is considerably speeded up by the new information and communication technologies. The result is increased competition. Competition between universities and between countries, but also between universities and other institutions, particularly public research laboratories (where research staff are not expected to meet simultaneous teaching commitments), or private teaching institutions, often specialised and sometimes run on a profit-making basis. An increasing share of the funds allocated to the universities is distributed on a competitive basis and this means ever keener competition to attract and keep the best talent.

Be that as it may, European universities are attracting fewer students and in particular fewer researchers from other countries than their American counterparts. The former in 2000 attracted some 450 000 students from other countries, while the

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<sup>10</sup> European Commission, Joint Research Centre, Report on "The future of education between now and 2010", June 1999.

<sup>11</sup> Countries such as the United Kingdom and Denmark have set a target of training 50% of a given age group at university level between now and 2010.

latter attracted over 540 000<sup>12</sup>, mostly from Asia<sup>13</sup>. More significantly, the USA in proportion attracts many more students from other countries at advanced levels in engineering, mathematics and informatics, and are successful in keeping more persons with doctorate qualifications: some 50% of Europeans who obtained their qualifications in the USA stay there for several years, and many of them remain permanently.

European universities in fact offer researchers and students a less attractive environment. This is partly due to the fact that they often do not have the necessary critical mass, which prompts them to opt for collaborative approaches, e.g. creation of networks, joint courses or diplomas. But other factors, outside the university, play also an important role, e.g. the rigidities of the labour market or lower entrepreneurship entailing fewer employment opportunities in innovative sectors. This is reflected in lower performances in e.g. research funding, links to industry, patenting rates and spin-off creating rates than in the USA and Japan<sup>14</sup>.

#### To develop effective and close co-operation between universities and industry

Co-operation between universities and industry needs to be intensified at national and regional level, as well as geared more effectively towards innovation, the start-up of new companies and, more generally, the transfer and dissemination of knowledge. From a competitiveness perspective it is vital that knowledge flows from universities into business and society. The two main mechanisms through which the knowledge and expertise possessed and developed by universities can flow directly to industry are the licensing of university intellectual property, and spin-off and start-up companies .

Although little data is currently available in Member States on the extent to which universities are commercialising their research, so that it is difficult to say how well universities across the European Union are exploiting research results with the enterprise sector, some data are available through the “Community Innovation Survey” (CIS). The CIS asks enterprises, inter alia, about the most important sources of information for innovation. The results<sup>15</sup> show that education-related and public research sources are ranked very low. Less than 5% of innovative companies considered information from government or private non-profit research institutes, and from universities or other higher education establishments, as being a very important source of information.

It would facilitate the dissemination of knowledge into the EU industrial fabric, including SMEs in traditional sectors, if universities were actively to pursue the promotion of effective university-industry relationships, and better to exploit the results of their knowledge in relationships with industry. Evaluation criteria for the performance of universities’ could take account of this challenge.

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<sup>12</sup> European Commission, DG RTD, Key Figures 2002 (based on OECD and Eurostat data)

<sup>13</sup> Students from four Asian countries (China, India, Japan and South Korea) on their own accounted for nearly 40% of the total of foreign students in the USA (Open Doors 2001, IIE, New York).

<sup>14</sup> European Commission, Communications "Towards a European research area", COM (2000) 6 of 18.1.2000 and "The European research area: providing new momentum", COM (2002) 565 of 16.10.2002.

<sup>15</sup> “Statistics on Innovation in Europe” Data 1996-97, EUROSTAT

The European Commission will continue to analyse the existing barriers and factors conducive to this co-operation and will disseminate the results widely to interested circles.

#### The proliferation of places where knowledge is produced

This development and the increasing tendency of the business sector to subcontract their research activities to the best universities mean that universities have to operate in an increasingly competitive environment. The result that is on top of the traditional links between the universities of a given region and the businesses in the surrounding area new relations have appeared in the picture. Geographical proximity is no longer the main basis for selecting a partner. High-tech businesses, for their part, tend to set up near the best-performing universities. The shortening of the time lag between discoveries and their application and marketing raises the question of the role and the contribution of universities to the process of technological innovation and the links between them and the business sector.

#### The reorganisation of knowledge

This is to be seen in particular in two trends which pull in opposite directions. On the one hand, we have the increasing diversification and specialisation of knowledge, and the emergence of research and teaching specialities which are increasingly specific and at the cutting edge. On the other, we see the academic world having an urgent need to adapt to the interdisciplinary character of the fields opened up by society's major problems such as sustainable development, the new medical scourges, risk management, etc. Yet the activities of the universities, particularly when it comes to teaching, tend to remain organised, and more often than not compartmentalised, within the traditional disciplinary framework.

The reorganisation of knowledge can also be seen in a certain blurring of the borders between fundamental research and applied research. This does not go so far as totally to remove the meaning of the difference between, on the one hand, the pursuit of knowledge essentially for its own sake, and on the other its development with a view to specific objectives, particularly the conversion of existing knowledge into products, processes and technologies.

Fundamental research therefore remains a major area for university research activity. It is this capacity in the big American research universities that makes them attractive partners for industry, which in turn provides them with substantial funding for it. Fundamental research in this context is therefore conducted with its application very much in mind, but at the same time without losing its fundamental character. In Europe, universities tend to undertake directly applied research for the business sector, extending even to the provision of scientific services, which if taken to excess could endanger their capacity to contribute to the progress of knowledge.

#### The emergence of new expectations

Alongside its fundamental mission of initial training, universities must cater for new needs in education and training stemming from the knowledge-based economy and society. These include an increasing need for scientific and technical education, horizontal skills, and opportunities for lifelong learning, which require greater permeability between the components and the levels of the education and training

systems. European universities are directly concerned by scientific education, in particular because they train science teachers for secondary education. In addition, the contribution expected of universities to lifelong learning strategies leads them gradually to widen the conditions of access to this area of tuition (in particular to allow access to those not coming through the route of upper secondary education, through better recognition of skills acquired outside university and outside formal education); to open up more to industry; to improve student services; and to diversify their range of training provision in terms of target groups, content and methods<sup>16</sup>.

The growth of the knowledge economy and society also leaves universities to become more closely involved in community life. Alongside and as a natural result of the exercise of its fundamental missions to produce and transmit knowledge, the university today functions particularly as a major source of expertise in numerous areas. It can and must increasingly become a forum of reflection on knowledge, as well as of debate and dialogue between scientists and people.

Given that they live thanks to substantial public and private funding, and that the knowledge they produce and transmit has a major impact on the economy and society, universities are also accountable for the way they operate and manage their activities and budgets to their sponsors and to the public. This leads to increasing pressure to incorporate representatives of the non-academic world within universities' management and governance structures.

#### **4. WHAT IS AT STAKE FOR EUROPE**

##### **4.1. Universities and the European dimension**

Responsibilities for universities lie essentially in the Member States at national or regional level. The most important challenges facing the universities, by contrast, are European, and even international or global. Excellence today is no longer produced or measured at the national level, even in the biggest European countries, but at the level of the European or world community of teachers and researchers.

The question arises in this context as to the compatibility and the transparency of the systems whereby qualifications are recognised (which lies at the core of the Bologna process of convergence), and that of the obstacles to the mobility of teachers and researchers<sup>17</sup> in Europe. Student mobility, for instance, is still marginal in Europe. In 2000, a mere 2.3% of European students were pursuing their studies in another European country<sup>18</sup> and while the mobility of researchers is higher than that of the average of the population concerned, it is still lower than it is in the USA. The divergence between the organisation of universities at Member State level and the emergence of challenges which go beyond national frontiers has grown over the past few years and will continue to do so, as a result of a combination of factors:

<sup>16</sup> European Commission, Communication "Making a European area of lifelong learning a reality", COM (2001) 678 of 21.10.2001.

<sup>17</sup> Strategies in favour of Mobility within the European Research Area, Communication from the Commission, COM(2001) 331 final of 26 June 2001.

<sup>18</sup> This low average masks substantial disparity across the Member States. For instance, 68% of Luxemburgish students, 10% of Greek students and 9% of Irish students were studying outside their own country. Conversely, only 0.7% of UK students and 1.2% of Spanish students went to study beyond their own borders.

- the emergence of a true European labour market in which the people of Europe must be free to move around as they wish<sup>19</sup> and in which problems concerning the recognition of qualifications become a thing of the past;
- the expectations with regard to recognition which have been created by action taken by the European Union itself to encourage mobility, particularly through the ERASMUS initiative;
- the emergence of a globalised provision of a wide range of university courses, the continuing brain drain leading to the loss of top-level students and researchers, and a continuing comparatively low level of activity by European universities at the international level;
- the worsening of these factors which will come with the enlargement of the Union, owing to the greater level of heterogeneity of the European university landscape which will ensue.

The nature and scale of the challenges linked to the future of the universities mean that these issues have to be addressed at European level. More specifically, they require a joint and coordinated endeavour by the Member States and the candidate countries, backed up and supported by the European Union, in order to help to move towards a genuine Europe of knowledge.

#### **4.2. European Union action for the universities**

Support is available to universities from a variety of Community initiatives in the areas of research and education. On the research front, they receive around one third of the funding under the framework programme for technological research and development, and particularly the support actions for research training and mobility (Marie Curie actions).

The advantages of the Framework Programme for the universities should further increase with the Sixth Framework Programme<sup>20</sup> with the stepping up of training and mobility support actions, the introduction of a support structure for the creation of young teams with a potential for excellence, and the increased focus that will be placed on fundamental research within “networks of excellence” or “integrated projects”<sup>21</sup>, and particularly as part of action to promote research “at the frontiers of knowledge” (NEST action).

The universities also have a major role to play in initiatives under the “Science and Society” action plan<sup>22</sup>, designed to foster the development and improve the coordination of national activities and policies in areas such as scientific opinion and dialogue with the people, ethics, science education, and “women and science”.

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<sup>19</sup> In this connection, the European Commission has submitted an action plan on skills and mobility, COM(2002)72 of 13.2.2002.

<sup>20</sup> Decision of the Council and of the European Parliament 1513/2002 in OJ L 232 of 29.8.2002, p. 1.

<sup>21</sup> The “networks of excellence” are an instrument of integration of European research capacity designed to further knowledge, the “integrated projects” a tool for conducting research targeting a specific objective. Both are designed to gather a critical mass of resources and are used in the seven “priority thematic areas” under the sixth Framework Programme.

<sup>22</sup> European Commission, Communication “Science and Society Action Plan”, COM (2001) 714 of 4.12.2001.

Universities are also involved in certain of the actions pursued by the Union relating to technological innovation, e.g. the support actions for utilising R&D results achieved by science parks, through the Framework Programme or with the support of the Structural Funds or the European Investment Bank (EIB).

As far as education and training are concerned, universities are very much involved in all the actions of the SOCRATES programme, particularly the ERASMUS action. Since it was launched, over a million students have benefited from this action and every year some 12 000 teachers opt for ERASMUS mobility. Many thematic inter-university networks also contribute to strengthen cooperation at European level, acting as a think tank for the future or the development of their subject area. The Community has provided support for the European course credit transfer system (ECTS) for the recognition of periods of study. The LEONARDO programme provides support for mobility projects between universities and the business sector, involving 40 000 people between 1995 and 1999. Universities are also involved in the eEurope initiative and its eEurope 2005 Action Plan, which encourages all universities to develop on-line access ("virtual campus") for students and researchers<sup>23</sup>.

This cooperation also extends to other regions of the world. Most of the Community research Framework Programme is open to every country in the world and in particular provides support for cooperation with the countries with the Mediterranean region, Russia and the Newly Independent States, as well as developing countries. Through the TEMPUS programme the Union supports university cooperation with the countries of the former Soviet Union, southeast Europe and, since its extension in 2002, the Mediterranean region. There are also initiatives covering relations with other geographical areas, e.g. ALFA and Asia-Link. All these activities help to project the European academic universe around the world. It is also worth mentioning the proposal for the "Erasmus World" programme, which will enable the Union to support "European masters" in order to attract to Europe some of the world's best students for studies pursued in at least two European countries.

Lastly, the Commission supports and helps to foster the Bologna process which is designed to create between now and 2010 a European higher education area which is consistent, compatible and competitive, through reforms which converge around certain defining objectives.

## 5. MAKING EUROPEAN UNIVERSITIES A WORLD REFERENCE

If they are to play their full role in the creation of a Europe of knowledge, European universities must, with the help of the Member States and in a European context, rise to a number of challenges. They can only release their potential by undergoing the radical changes needed to make the European system a genuine world reference. There are three objectives to be pursued simultaneously:

- ensuring that European universities have sufficient and sustainable resources and use them efficiently;

<sup>23</sup> The eEurope Action Plan - Designing tomorrow's education, Communication from the Commission, COM(2001)172 final, 28 March 2001.

- consolidating their excellence in research and in teaching, particularly through networking;
- opening up universities to a greater extent to the outside and increasing their international attractiveness.

### **5.1. Ensuring that the European universities have sufficient and sustainable resources**

#### Insufficient means

On average the Member States spend 5% of their GDP on public expenditure for education in general. This figure is comparable to that of the USA and higher than Japan's (3.5%). Public expenditure, however, has not increased with GDP in recent years in Europe, and has even dropped in the past decade. Total expenditure on higher education alone has not in any member state increased in proportion to the growth in the number of students. A substantial gap has opened up with the USA: 1.1% of GDP for the Union compared with 2.3%, i.e. more than double, for the USA. This gap stems primarily from the low level of private funding of higher education in Europe. This stands at a meagre 0.2% of European GDP compared with 0.6% in Japan and 1.2% in the USA.

American universities have far more substantial means than those of European universities — on average, two to five times higher per student. The resources brought by the students themselves, including by the many foreign students, partly explain this gap. But American universities benefit both from a high level of public funding, including through research and defence credits, and from substantial private funding, particularly for fundamental research, provided by the business sector and foundations. The big private research universities also often have considerable wealth, built up over time through private donations, particularly those from graduate associations.

The worsening under-funding of European universities jeopardises their capacity to keep and attract the best talent, and to strengthen the excellence of their research and teaching activities<sup>24</sup>. Given that it is highly unlikely that additional public funding can alone make up the growing shortfall, ways have to be found of increasing and diversifying universities' income. The Commission plans to conduct a study on the funding of European universities, in order to examine the main trends in this area and identify examples of best practice.

At the March 2002 Barcelona European Council, the Union set as its target to increase Europe's research effort to 3% of its GDP<sup>25</sup>. This implies a special effort as regards human resources for research.

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<sup>24</sup> The Commission sets out ideas for consideration and discussion on the matter of university funding in its Communications "Investing efficiently in education and training: an imperative for Europe" (COM(2002)779 of 10 January 2003) and "More research for Europe: towards 3% of GDP" (COM(2002) 499 of 11.9.2002).

<sup>25</sup> European Commission, Communication "More research for Europe: towards 3% of GDP", COM (2002) 499 of 11.9.2002.

### 5.1.1. *Increasing and diversifying universities' income*

Four main sources of university income can be identified:

- Public funding for research and teaching in general, including research contracts awarded on a competitive basis: this is traditionally the main source of funding for European universities. However, given the budgetary situation in the Member States and the candidate countries, there is a limited margin of manoeuvre for increasing public support. And while the Member States did in Lisbon in March 2000 give a commitment to substantially increase human resource investment, it is highly unlikely that this effort alone can cover the anticipated increase in the number of students or make it possible to catch up with the USA.
- As is the case in the USA, private donations can prove a substantial source of income for universities. However, this solution comes up against a whole range of problems in Europe, particularly the low fiscal attractiveness of private donations, and the status of the universities, which does not always allow them to amass private funds and wealth. These problems also explain, at least in part, the absence of a philanthropic tradition on the scale of that to be found in the USA, where former students often remain linked to their universities long after they have qualified.
- The universities can also generate income by selling services (including research services and flexible lifelong learning possibilities), particularly to the business sector, and from using research results. But these sources do not today contribute in any substantial way to the funding of European universities, partly because of a regulatory framework which does not allow them to really take advantage of their research activities, or does not encourage them to do so, e.g. because the royalties are paid to the state and not to the university or the researchers themselves.
- Lastly, contributions from students, in the form of tuition and enrolment fees. In Europe, these contributions are generally limited or even prohibited, in order to allow democratic access to higher education.

#### **Questions for the debate**

- How can adequate public funding of universities be secured, given the budgetary constraints and the need to ensure democratic access?
- How can private donations be made more attractive, particularly from a tax and legal point of view?
- How can universities be given the necessary flexibility to allow them to take greater advantage of the booming market in services?

### 5.1.2. *Using the available financial resources more effectively*

Universities must use the limited financial resources they have as efficiently as possible. They have a duty to their “stakeholders”: the students they train, the public authorities that provide their funding, the labour market which uses the qualifications

and skills they transmit and society as a whole, for whom they fulfil important functions related to economic and social life. The objective must be to maximise the social return of the investment represented by this funding. There are many signs<sup>26</sup> which show that it is not currently used in the most efficient way.

- A high dropout rate among students, standing at an average of around 40% in the Union. The “education for everybody” approach in higher education has resulted in huge expansion of the student population, with no fundamental change in university structures and living conditions. In most Member States, a successful secondary school career gives automatic right of access to university studies with no additional selection. This right is considered as an essential element of democracy to guarantee equality for all citizens. Many students thus embark upon higher education without any real academic vocation and do not get what they need from university training. In certain Member States, the universities themselves apply selection systems, in particular certain subject areas<sup>27</sup> sometimes apply additional selection criteria.
- A mismatch between the supply of qualifications (which is shaped by a medium-term perspective, as a result of the duration of studies) and the demand (which often reflects very short term needs and is more volatile) for qualified people, which may result in particular lasting deficits in certain broad types of qualifications, especially in the area of science and technology. University training in fact does not only affect the people who benefit from it: society at large must endeavour to optimise the social return on the investment represented by the studies it pays for. A mismatch between the qualifications offered and those requested is thus an illustration of non-optimum use of resources.
- The duration of studies for a specific qualification can vary in the ratio of one to two in Europe. This explains the huge disparities in the total cost of a student calculated on the basis of an average number of years of study. In Germany, for instance, it usually takes five to six years to train a civil engineer and this training is totally funded from the public purse. In the United Kingdom, it takes up only three years of university studies paid for from public funds, followed by three to five years of training in a company, this training attested to by a state-recognised exam — all paid by the employer, and backed up by on-the-job experience. These differences in duration, even between countries which mutually recognise their qualifications, are striking when one considers that there is widespread support for the Bologna process which is designed to create a European area of higher education by 2010. The difference in cost for the public purse prompts scrutiny of what constitutes optimum use of resources.
- In the same line of thinking, the disparity of status and conditions of recruitment and work for researchers at the pre and post-doctoral levels in Europe is not conducive to the best allocation possible of the means granted to them.

<sup>26</sup> These are analysed in detail in the Communication “Investing efficiently in education and training: an imperative for Europe”.

<sup>27</sup> Particularly medicine and veterinary science.

- Europe also suffers from the lack of a transparent system for calculating the cost of research in European universities. This is because of the disparity, the opacity and complexity of the accounting systems used. This prompted the high level group of Commission advisers on research (EURAB, European Research Advisory Board) to suggest the development of a simple and transparent accounting system to calculate the real cost of research and to allow comparisons.

**Questions for the debate:**

- How can the maintenance of democratic access to higher education be combined with a reduction in failure and dropout rates among students?
- How can a better match be achieved between supply of and demand for university qualifications on the labour market, through better guidance?
- Is there a case for levelling out the duration of courses for identical qualifications?
- How can the transparency of research costs in the universities be enhanced?

5.1.3. *Applying scientific research results more effectively*

Application of research and insufficient creation of spin-off companies

The universities are one of the primary sources of new knowledge and as such play an ever stronger part in the process of technological innovation. But they do not do so in Europe to the extent they could and should. Since the mid-1990s, the number of young technological (“spin-off”) companies created by universities has been on the rise in Europe, particularly around certain of them. Their average density nevertheless is far smaller than it is around the American campuses. Fewer companies are set up in Europe by researchers or in association with them, and those created in Europe tend to grow less quickly and not to last as long.

A major obstacle to better application of university research results is the way intellectual property issues are handled in Europe. In the USA, the “Bayh-Dole” Law has given organisations in which research is conducted using federal funds, particularly the universities, ownership of their results in order to encourage application of academic research results. In recent years, in Europe, several national legislations have converged towards solutions of the Bayh-Dole Act type, and other Member States where provisions of this type have not yet been adopted are about to do so. The actual effect of these measures cannot yet be evaluated. However, the divergences which continue in relation to the provisions enforced in certain Member States, and the national nature of the regulations concerned, have in Europe complicated and limited the transfer of technology and transnational cooperation. More broadly, while the Community patent opens up opportunities for European scale application, it is a matter which is still under discussion.

In addition, European universities do not have well-developed structures for managing research results. They are less well developed, for instance, than those of public research bodies. Another contributory factor is the lack of familiarity of many university staff with the economic realities of research, particularly the managerial

aspects and issues regarding intellectual property. The idea of applying research results is moreover still looked upon with distrust by many researchers and university leaders, particularly because of the delicate balance to be struck between the requirements of economic use on the one hand, and on the other the need to preserve, in the common interest, the autonomy of universities and freedom of access to knowledge.

**Questions for the debate:**

- How could it be made easier for universities and researchers to set up companies to apply the results of their research and to reap the benefits?
- Is there a way of encouraging the universities and researchers to identify, manage and make best use of the commercial potential of their research?
- What are the obstacles which today limit the realisation of this potential, whether legislative in nature or as regards intellectual property rights? How can they be overcome, particularly in countries where the university is funded almost exclusively from the public purse?

## **5.2. Consolidating the excellence of European universities**

### *5.2.1. Creating the right conditions for achieving excellence*

If Europe is to have and to develop real excellence within its universities, a number of conditions need to be in place. Some of these exist already in some Member States; and the list itself does not claim to be all-inclusive. Nonetheless, it sets out a reference for the debate. As with many other areas mentioned in this Communication, these issues need to be tackled within the structures of the universities themselves, as well as within the structure of regulation within which they operate. However, if this is not done in a convergent and coherent manner across Europe these efforts will lose much of their value. The aim must be to bring all universities to the peak of their potential, not to leave some behind; and piecemeal implementation of these issues will reduce the momentum of the university world in Europe generally. Such a convergent process would also, as with the structural reforms that have followed the Bologna Declaration, provide a supporting context within which Member States could achieve such change.

#### Need for long term planning and financing.

The precondition for the development and support of excellence is a context in which long-term planning is possible. Excellence does not grow overnight. Building up a reputation for excellence in any discipline (or sub-discipline) takes years, and is dependent on the critical attitude of peers, measured not country-wide, but Europe-wide and indeed world-wide. Accumulating the intellectual capital represented by effective and world-class teams of researchers, led by the best combination of vision and doggedness, and operated by individuals whose contributions complement each other in the best way, takes a long time and requires that worldwide recruitment to teams be possible.

And yet governments, which are still the major paymasters of universities, budget on an annual basis, and have difficulties in looking beyond a limited number of years.

Although a number of Member States have moved to multi-annual contracts with universities, the time period involved rarely exceeds 4 years. Equally, at the end of the four-year period elections may have intervened, the position of the government may have changed, the objectives sought previously may have diminished in importance or, in extreme cases, been discarded.

Member States thus need a general consensus within political and civil society as to the contribution which excellence in research and in universities makes, and the need to enable it. Such consensus should seek in part to insulate the research sector from the hazards of changing financial circumstances, insofar as this is possible. The period within which universities should be enabled to plan, to develop their own strategies, and to exercise the autonomy suggested in Section 5.1 above, could rise to 6 or even 8 years where possible.

#### Need for efficient management structures and practices.

A second condition is that the governing structures of a university must respond both to the varied needs of that institution and to the expectations of society - those who provide its core funding. That implies that they should have an effective decision-making process, a developed administrative and financial management capacity, and the ability to match rewards to performance. Equally, the system should be designed with issues of accountability clearly in mind. Managing a modern university is a complex business, and one which should be open to professionals from outside the purely academic tradition, provided that confidence in the university's management remains strong. It should also be said that freedom of funding will of itself change the financial culture of a university; but it will not by itself increase the quality of that management.

#### Need to develop interdisciplinary capability.

A third condition needed for excellence is that universities be enabled, and encouraged, to develop more work falling between the disciplines. As has been noted above (Section 3.3), advanced research increasingly falls outside the confines of single disciplines, partly because problems may be more complex, more because our perception of them has advanced, and we are more aware of the different specialisations required to examine different facets of the same problem.

Organising work on an inter-disciplinary basis requires that universities have flexibility in their organisation, so that individuals from different departments can share their knowledge and work together, including through the use of ICT. It also requires flexibility in the way careers are evaluated and rewarded, so that inter-disciplinary work is not penalised for being outside normal departmental frames. Finally, it requires that departments themselves should accept "cross-border" work as contributing to faculty-wide objectives.

**Questions for the debate:**

- How can the consensus be strengthened around the need to promote excellence in the universities in conditions which make it possible to combine autonomy and management efficiency?
- Is there a way of encouraging the universities to manage themselves as efficiently as possible while taking due account simultaneously of their own requirements and the legitimate expectations of society in their regard?
- What are the steps which would make it possible to encourage an interdisciplinary approach in university work, and who should take them?

**5.2.2. *Developing European centres and networks of excellence***

A combination of the absolute need for excellence, the effects of the precariousness of resources and the pressure of competition, forces universities and Member States to make choices. They need to identify the areas in which different universities have attained, or can reasonably be expected to attain, the excellence judged to be essential at European or at international level – and to focus on them funds to support academic research. This type of policy would make it possible to obtain appropriate quality at national level in certain areas, while ensuring excellence at the European level, as no Member State is capable of achieving excellence in all areas.

As to which areas should be given preference, this should be based on an evaluation within each university system. If it is to be objective and reflect the perception of the European and international scientific and academic community, this evaluation should be carried out by panels including people from outside the national system concerned. The academic excellence to be evaluated could in fact include that of other universities with which the institutions examined are associated through transnational cooperation arrangements. The choice of areas and institutions should be reviewed regularly, in order to ensure that excellence is maintained and to allow new teams of researchers to show their potential.

The concentration of research funding on a smaller number of areas and institutions should lead to increased specialisation of the universities, in line with the move currently observed towards a European university area which is more differentiated and in which the universities tend to focus on the aspects situated at the core of their research and/or teaching skills. While the link between research and teaching naturally continues to define the ethos of the university as an institution and while training through research must remain an essential aspect of its activity, this link is nevertheless not the same in all institutions, for all programmes or for all levels.

The support for excellence and its dissemination, particularly academic excellence is a key principle of the Sixth Community Framework Research Programme. Through this programme's "networks of excellence" the Union is endeavouring to foster the building up of "virtual" capacity for excellence which has the critical mass needed and is, whenever possible, multi-disciplinary.

**Questions for the debate:**

- How can providers of university funds be encouraged to concentrate their efforts on excellence, particularly in the area of research, so as to attain a European critical mass which can remain competitive in the international league?
- How should this excellence be organised and disseminated, whilst managing the impact of the steps taken on all institutions and research teams?
- How can the European Union contribute more and better to the development and maintenance of academic excellence in Europe?

*5.2.3. Excellence in human resources*

In order to maintain its position and strengthen its role internationally, the Union needs a pool of top-level researchers/teachers, engineers and technicians. The university remains the focal point for training such people. In terms of quantity, the Union is in the paradoxical situation of producing slightly more scientific and technical graduates than the USA, while having fewer researchers than the other major technological powers. The explanation for this apparent paradox lies in the smaller number of research posts open to scientific graduates in Europe, particularly in the private sector: 50% only of European researchers work in the business sector, compared with 83% of American researchers and 66% of Japanese researchers.

The situation in Europe could well get worse in the years ahead. The absence of career prospects will alienate young people from scientific and technical studies, while science graduates will look to other more lucrative careers. Furthermore, around one third of the current European researchers will retire over the next 10 years. As the situation is similar in the United States, the competition between universities internationally is set to become even keener.

One way of stemming this trend would be to increase the number of women in scientific and technical careers, where they are substantially under-represented, particularly at the top end of the ladder. On average, in the countries of the Union, there are two to four times more men than women graduates in the sciences. Also, women represent only a quarter to a third of laboratory research personnel in Europe. Action is being taken under the "women and science" initiative<sup>28</sup>, to encourage women to participate in the European research drive, by pinpointing the obstacles to their presence and generally applying the most effective steps taken by Member States to remove these obstacles.

Another solution would be to enhance the pool of resources by strengthening not only intra-European academic mobility, but also mobility between university and

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ETAN working party report "Science policies in the European Union: promoting excellence through mainstreaming gender equality", 1999; Resolution of the European Parliament on Women and Science of 3 February 2000 (EP 284.656); Commission working document "Women and science: the gender dimension as a leverage for reforming science" SEC (2001) 771 of 15 May 2001; Council Resolution on science and society and on women in science of 26 June 2001; OJ C 199, p.1 of 14.7.2001; Report by the Helsinki Group on Women and Science "National policies on women and science in Europe" – March 2002.

industry. In this context virtual mobility based on the use of ICT has also an important role to play.

Although the situation has improved slightly in the wake of initiatives taken in a number of Member States, European universities continue essentially to recruit people from the country or region in which they are established, or even within the institution itself. Furthermore, the evaluation of researchers is based on criteria which neither stress the advantages of nor encourage periods in other European universities.

In this context there is also the core issue of recognition of studies and qualifications at European level. Not having a quick, simple system of recognition for academic or professional purposes is today a major obstacle to research and mobility — and therefore to a greater cross-fertilisation of ideas and research between European universities, and to their wider influence. Specific instruments (such as ECTS, the Diploma Supplement, NARICs, Community directives) have been developed and almost all Member States and candidate countries have invested in quality assurance systems which are networked within the ENQA (European Network for Quality Assurance). It is urgent to examine whether and how a solution could be found (within the framework of the Bologna process for greater transparency and compatibility) to the problem of recognition, which is currently preventing the universities from using their potential and resources efficiently and limiting their wider audience.

In qualitative terms, excellence in human resources depends largely on available financial resources, but is also affected by working conditions and career prospects. Generally speaking, career prospects in European universities, characterised by the multiplicity of configurations, are limited and shrouded in uncertainty. The Commission supports the Bologna process, including its extension to doctorate level training, and is interested to note the experiments in progress on dual doctorates or doctorates under joint supervision. It also stresses the need to train prospective doctorate candidates to a greater extent in an interdisciplinary work perspective.

European universities also offer fewer possibilities at post-doctorate level than their American counterparts. There would be a case for expanding the range of opportunities for holders of doctorates outside research careers.

The Union has pursued a number of initiatives to encourage and facilitate research and mobility in Europe. Under the project on the European Research Area, it has defined a strategy to foster research and mobility through a range of tangible measures. Moreover, the Commission will shortly submit a Communication on the matter of scientific careers.

**Questions for the debate:**

- What steps could be taken to make scientific and technical studies and careers more attractive, and to strengthen the presence of women in research?
- How — and by whom— should the lack of career development opportunities following doctoral studies be addressed in Europe, and how could the independence of researchers in carrying out their tasks be fostered? What efforts could universities make in this regard, taking particular account of the needs of Europe as a whole?

- What ways are there of helping European universities to gain access to a pool of resources (students, teachers and researchers) having a European dimension, by removing obstacles to mobility?

### 5.3. Broadening the perspective of European universities

#### 5.3.1. *A broader international perspective*

European universities are functioning in an increasingly “globalised” environment and find themselves competing with universities of the other continents, particularly American universities, when it comes to attracting and keeping the best talent from all over the world. While European universities host only slightly fewer foreign students than American universities, in proportion they attract fewer top-level students and a smaller proportion of researchers.

All in all, the environment offered by the European universities is less attractive. Financial, material and working conditions are not as good; the financial benefits of the use of research results are smaller and career prospects are poorer<sup>29</sup>; there is also the inappropriate and poorly harmonised nature of arrangements with regard to visas and residence permits for students, teachers and researchers from other countries — be they from the Union or from other countries in the world. Several Member States have recently taken steps to enhance the attraction of their universities, their laboratories and their businesses for top-level researchers and students and qualified workers from third countries, e.g. through “scientific visas”.

Similarly, the Commission has submitted a proposal for a Council directive on the conditions of entry and residence of students from third countries. A parallel initiative for researchers from these countries is expected in 2003. The Union will also step up support to enhance the attractiveness of European universities through action to support mobility under the Sixth Framework Programme, which will enable over 400 researchers and doctoral students from third countries to come to European universities between 2003 and 2006, and under the “Erasmus World” initiative.

#### **Questions for the debate:**

- How can European universities be made more attractive to the best students and researchers from all over the world?
- In a context of increasing internationalisation of teaching and research, and of accreditation for professional purposes, how should the structures, study programmes and management methods of European universities be changed to help them retain or recover their competitiveness?

#### 5.3.2. *Local and regional development*

There are universities throughout the Union's regions. Their activities often permeate the local economic, social and cultural environment. This helps to make them an instrument of regional development and of strengthening European cohesion. The development of technology centres and science parks, the proliferation of regional

<sup>29</sup> See also Section 5.1.3 on the management of intellectual property.

cooperation structures between the business sector and the universities, the expansion of university regional development strategies, the regional networking of universities, are all illustrations of this dimension of university activity.

The regional dimension of the university activity is thus set to get stronger, given its essential role in achieving the Europe of knowledge, particularly looking ahead to enlargement. The European Union supports these developments, particularly through the Structural Funds and the Sixth Framework Programme.

In addition, the role played by the universities as a source of expertise and a catalyst for multiple partnerships between economic and social players within a range of networks is very relevant at the regional and local levels.

The increased involvement of the universities locally and regionally should not, however, overshadow a more outward-looking international perspective and a constant endeavour to improve their excellence in research and education. These remain essential and will indeed enable the universities to make a more effective contribution to the development of their local and regional environment.

**Questions for the debate:**

- In what areas and how could the universities contribute more to local and regional development?
- What ways are there of strengthening the development of centres of knowledge bringing together at regional level the various players involved in the production and transfer of knowledge?
- How can greater account be taken of the regional dimension in European research, education and training projects and programmes?

## 6. CONCLUSION

This Communication makes a number of points which reflect the profound changes taking place in the European university world. After remaining a comparatively isolated universe for a very long period, both in relation to society and to the rest of the world, with funding guaranteed and a status protected by respect for their autonomy, European universities have gone through the second half of the 20th-century without really calling into question the role or the nature of what they should be contributing to society.

The changes they are undergoing today and which have intensified over the past ten years prompt the fundamental question: can the European universities, as they are and are organised now, hope in the future to retain their place in society and in the world?

If it is to achieve its ambition of becoming the world's most competitive and dynamic knowledge-based economy and society, Europe simply must have a first-class university system -- with universities recognised internationally as the best in the various fields of activities and areas in which they are involved.

The questions raised in this document are intended to help in determining what action should be taken for a move in this direction within the enlarged EU.

All interested parties -- institutions, public authorities, individuals or representative associations -- are therefore urged to give their points of view on this subject, and describe their experiences and their "best practices".

## **7. HOW TO CONTRIBUTE?**

The Commission intends to review the contributions it has received up to the end of May 2003.

These contributions can be sent to either of the following two dedicated e-mail addresses:

- [eac-consult-univ@cec.eu.int](mailto:eac-consult-univ@cec.eu.int)
- [rtd-consult-univ@cec.eu.int](mailto:rtd-consult-univ@cec.eu.int)

They can also be sent by physical mail to:

European Commission  
EAC A1 (Consult-Univ)  
(B7 – 9/58)  
B - 1049 BRUXELLES





COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 9.3.2004  
COM(2004) 156 final

**COMMUNICATION FROM THE COMMISSION**

**THE NEW GENERATION OF COMMUNITY EDUCATION AND TRAINING  
PROGRAMMES AFTER 2006**

## COMMUNICATION FROM THE COMMISSION

### THE NEW GENERATION OF COMMUNITY EDUCATION AND TRAINING PROGRAMMES AFTER 2006

#### EXECUTIVE SUMMARY

This Communication follows up the Commission's proposal for the budgetary means and policy priorities for the period 2007-2013. It describes the Commission's intentions for a new generation of Community programmes for mobility and co-operation in education and training to replace the Socrates, Leonardo da Vinci and Tempus III programmes when they expire at the end of 2006. It shows how the new generation will contribute to the Commission's priorities for the period to 2013, in particular to achieving sustainable development within the European Union and stability and prosperity in the neighbouring countries.

The new generation will consist of:

- a new Integrated Programme for mobility and co-operation in lifelong learning for the EU Member States, the EEA/EFTA countries and the candidate countries, covering education and training together; and
- a new Tempus Plus programme for cooperation between Member States and countries bordering the Union and the existing Tempus countries, covering the whole spectrum of education and training.

The new programmes will respond to important policy developments in the field at European level that have taken place since the existing programme generation was created in the late 1990s. The Lisbon European Council of 2000 set the core goal of making Europe the most competitive knowledge-based economy in the world by 2010, while nonetheless strengthening social cohesion, and accorded education and training a central role in reaching this aim. The intergovernmental processes launched at Bologna and Copenhagen seek to improve coherence, quality and transferability in higher education and in vocational training, and explicitly acknowledge the important role the Community programmes will play in making them a success. In 2003, the Commission launched a "New Neighbourhood" strategy to reinforce the prosperity, stability and security of the countries bordering the enlarged European Union. All these major policy developments, and the other factors set out in the body of the Communication, need to be reflected in the design of the new programmes.

In line with the growing importance of cooperation in education and training, and in response to massive unfulfilled demand, the new generation of internal and external programmes will be significantly more ambitious than at present, as the Commission's new financial perspectives proposal makes clear. The Integrated Programme for lifelong learning would see a very significant increase in decentralised mobility actions for individual citizens and in partnerships between institutions. Its targets would include:

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- At least 10% of school pupils and teachers involved in Comenius 2007-13.
  - At least 3 million Erasmus students by 2010.
  - At least 150,000 Leonardo trainee placements per year by 2013.
  - At least 50,000 adults learning and teaching abroad per year by 2013 and the participation of at least one in five structured adult education providers in European cooperation by the end of the programme.

The Integrated Programme will be divided into four sectoral programmes: Comenius for school education; Erasmus for all forms of learning at university level; Leonardo da Vinci for initial and continuing vocational education and training; and Grundtvig for adult education. In order to reinforce synergies between education and training, and to address policy priorities and dissemination needs better, the Integrated Programme will contain a transversal programme, focusing on policy development (including data collection and analysis), language learning, new information and communication technologies (ICT), and dissemination. This will permit a more strategic and coordinated approach than in the current programmes.

The Integrated Programme will also include a new Jean Monnet programme, focusing on European integration. It will encompass the current Jean Monnet Action, to promote university teaching of and research into European integration, as well as support to important European organisations and associations in the field of education and training.

The new Tempus Plus programme will build on the successful Tempus approach, which has hitherto been limited to higher education and has led to system development and reinforced cooperation between Member States and partner countries. Tempus Plus would extend such action across the spectrum of lifelong learning: to schools, to vocational education and training, and to adult education. The programme will consist of measures to support system modernisation, to fund the mobility of individuals, and to support multilateral projects. The programme target would be:

- To support the mobility of at least 100,000 individuals by 2013.

The Commission's detailed legislative proposal for the new programmes outlined in this Communication will be published in summer 2004, as part of a wide-ranging package of draft legislation for the next programming period.

## INTRODUCTION

The existing Community programmes in the field of mobility and co-operation in education and training all come to an end in 2006<sup>1</sup>. The Commission will later this year adopt its detailed legislative proposals for a new generation of programmes to run concurrently with the new financial perspective. This Communication sets out, in the light of the Commission's recently-published Communication *Building our Common Future: Policy challenges and Budgetary Means of the Enlarged Union 2007-2013*<sup>2</sup>, the rationale behind the Commission's forthcoming legislative proposals, how they build on the experience of the past, their main features, and the broad use of the funds proposed in that Communication. This paper outlines the key contribution that organised European cooperation in education and training will make to achieving the Commission's priorities for the new expenditure period, in particular to sustainable development to bring the European Union to the leading edge in the knowledge economy and society, and to help reinforce stable and prosperous relations with our neighbouring countries. Nothing in this Communication prejudices the final content of the legislative proposals to be adopted by the Commission, including their financial aspects.

This Communication covers activities both within the European Union and candidate countries, and external activities involving the "New Neighbourhood" countries and other third countries currently covered by Tempus III. It is divided into six parts.

- The first part sets out the main political and policy developments that have taken place in co-operation in education and training since the adoption of the current generation of Community programmes in 1999/2000, which affect the design of the new generation of programmes.
- The second part outlines the continuing and growing need for Community action in the fields of education and training, both within and outside the EU.
- The third part covers the experience of the programmes as such, focusing on the interim evaluations of the current programmes and the public consultation on their future development.
- The fourth part describes the new internal programme proposal - an "Integrated Programme" for mobility and co-operation in lifelong learning bringing education and training activities together - and details its main features and planned outputs.
- The fifth part explains the new external programme proposal, the main orientations adopted by the Commission, and the key features of the new Tempus Plus programme and its planned outputs.
- The sixth part outlines how the new programme proposals contribute to the Commission's aim of simplifying instruments to improve delivery.

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<sup>1</sup> Decision No 382/1999/EC of the Council (OJ L 146 of 11.6.1999) (Leonardo da Vinci); Decision No 253/2000/EC of the Parliament and the Council (OJ L 28 of 3.2.2000) (Socrates); Decision No 1999/311/EC of the Council (OJ L 120 of 8.5.1999) (Tempus).

<sup>2</sup> COM(2004) 101.

## PART I – THE POLITICAL CONTEXT

### The Lisbon process

- 1.1 Europe has accepted the challenges of the knowledge society. High-quality education and training systems are an essential and indispensable pre-requisite for a competitive knowledge-based society. Globalisation and technological and demographic change mean that skills must be constantly updated if the Community is to remain competitive on a world-wide level, and if citizens are to avoid unemployment and ensuing social exclusion. The modernisation of the Community's education and training systems has consequently been identified by the Lisbon European Council, and by subsequent European Councils, as a centrepiece of the Community strategy, most recently in Brussels in October 2003. From Lisbon onwards, Community education and training policy has gained a dynamic hitherto unknown: it has an essential contribution to make to achieving the goal of making Europe the most competitive knowledge-based economy in the world by 2010 with more and better jobs and greater social cohesion.
- 1.2 The European Employment Strategy (EES) has a key role to play in this process, alongside research and innovation and the development of a more inclusive society and policies for sustainable growth. The contribution of the EES to the development of active labour market policies and to the employment-related aspects of education and training has been considerable. It is sustained in particular through the European Social Fund (ESF) which, as the third Cohesion Report<sup>3</sup> points out, represented one third of Structural Fund expenditure during the period 1994-1999. During the 2000-2006 programming period, the link between the EES and the ESF has been strengthened, and the ESF, with a budget of EUR 60 billion, is the main means of supporting the policy framework which the EES provides.

### The Objectives Process – improving European education and training systems

- 1.3 The period since the decisive Lisbon summit has seen a number of significant developments in education and training at EU level. For the first time, substantial political cooperation is taking place at European level in these areas, and there is an effort to integrate all initiatives into coherent education and training policies at European and national levels. Reforms are being made to policies and structures, leading to their convergence on the main EU goals. Serious attention is being paid not only to intra-European aspects of these policies, but also to the place of European education and training in the world.
- 1.4 The Council submitted a report in Spring 2001 on the concrete objectives of education and training systems, which identified three main goals for 2010: increasing the quality of education and training provided in Europe; improving access to education and training at all stages of life; and opening up the education and training systems to the wider world, so as to enable them better to prepare people for future life. These three main goals have been sub-divided into 13 more detailed objectives - ranging from improving teacher and trainer education to increasing the attractiveness of learning, and from making best use of resources to promoting cooperation and mobility. Linked to this is a new process to identify and collect

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<sup>3</sup> *A new partnership for cohesion: convergence, competitiveness, cooperation*, COM(2004) 107.

indicators in order to measure progress towards the various agreed objectives. The Commission has identified 29 such indicators, and the Council in May 2003 agreed five European benchmarks for progress towards the 2010 goals.

### **Lifelong learning**

- 1.5 At the same time, the concept of lifelong learning itself has been highlighted and developed at European level, notably at the European Councils in Lisbon and Feira. Following extensive consultation on a Commission Memorandum, strong consensus was reached on a new paradigm of learning which places the learner at the centre of the learning process and emphasises the importance of equal opportunities and the quality and relevance of available learning. The definition extends from pre-school to post-retirement, and encompasses the spectrum of formal, non-formal and informal learning. Active citizenship, personal fulfilment and social inclusion, as well as the employment-related aspects of employability and adaptability, are mutually supporting aims.
- 1.6 The Joint Interim Report to the Spring 2004 European Council, which was agreed at the Education Council on 26 February 2004, invites all Member States to put in place coherent and comprehensive national lifelong learning strategies by 2006. These strategies should promote more effective partnerships between key actors including business, the social partners and education institutions at all levels; validation of prior learning in order to motivate people to learn; and the creation of learning environments that are open, attractive and accessible to everyone, especially to disadvantaged groups.

### **A changing world of higher education – the Bologna process**

- 1.7 The university world is changing rapidly under the combined pressures of the new demands of the knowledge society in current and new Member States, an increasingly global research community and ever-rising national targets for participation in higher education. These targets are not generally matched by proportionate increases in resources for teaching or for research, and therefore imply changes in the organisation and balance of work done within universities. At the same time, Member States are increasingly concerned about ways of improving the quality and relevance of teaching and research within higher education, and with its efficiency and governance. Higher education systems and institutions are less and less “protected” behind national borders and increasingly open to competition and pressures from beyond them.<sup>4</sup>
- 1.8 The creation of a coherent, compatible and attractive European higher education area in accordance with the Bologna declaration of 1999 is the main structural means of meeting these challenges and has increasingly involved the Community in recent years. The goals of the Bologna declaration mirror in many ways the objectives of the Union’s own programmes in the field of higher education, including at doctoral level, so a closer association is natural and necessary. This is evident in fields such as quality assurance, the European Credit Transfer System (ECTS), the promotion of mobility and the European dimension of education.

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<sup>4</sup> For a fuller analysis see the Communication from the Commission, *The role of universities in the Europe of Knowledge*, COM(2003) 58 final.

### **Enhancing the quality and attractiveness of vocational education and training - the Copenhagen process**

- 1.9 In response to a request from the Barcelona European Council for action in the field of vocational training similar to that under the Bologna declaration, the Council in November 2002 published a resolution on increased cooperation on vocational training. This led to the adoption by Ministers from 31 countries, the European social partners and the Commission, of the “Copenhagen Declaration”, an agreement to develop enhanced European cooperation in a number of areas of vocational education and training. These include transparency of qualifications and competences, quality assurance, credit transfer, common principles for the validation of non-formal and informal learning and lifelong guidance.
- 1.10 Significant progress has been made at European level in implementing the Copenhagen declaration. The Commission adopted a proposal for a new Europass single framework for transparency of qualifications and competences in December 2003<sup>5</sup>. A Common Quality Assurance Framework, including a common core of quality criteria and a coherent set of indicators has been developed. In addition, the foundations of a credit transfer system for vocational education and training have been laid.

### **A changing Union with new borders**

- 1.11 Education and training policies do not operate in isolation. They also have a role to play in developing links with our neighbours. Relations with the countries bordering the enlarged Europe are crucial. In its Communication on Wider Europe the Commission stated, “The EU has a duty, not only towards its citizens and those of the new member states, but also towards its present and future neighbours to ensure continuing social cohesion and economic dynamism. The EU must act to promote the regional and sub-regional cooperation and integration that are preconditions for political stability, economic development and the reduction of poverty and social divisions in our shared environment”<sup>6</sup>. Deepening and widening cooperation in the fields of education and training are an essential part of that duty.

## **PART II – THE NEED FOR COMMUNITY ACTION**

- 2.1 It is in the light of these major policy ambitions and advances that the future need for Community action must be assessed. The largest single market in the world will never become the basis for the most competitive knowledge-based society if serious further efforts are not made to remove incompatibilities and incoherence between what, following enlargement, are 25 different education and training systems, where qualifications and skills are not recognised across borders and where methodological excellence in one country remains unknown in others. The necessary complement to the single market and the common currency is a workforce empowered to make use of professional and geographical mobility. What is needed is a coherent strategy, whereby Member States learn from each other. This does not imply that the Union

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<sup>5</sup> COM(2003) 796 final.

<sup>6</sup> COM(2003) 104 final, p. 3. The countries covered by this policy are: in the Southern Mediterranean: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestinian Authority, Syria, Tunisia; and Russia and the Western Newly Independent States (Ukraine, Moldova, Belarus).

needs to take responsibility for running education and training systems; on the contrary, full responsibility for the organisation, content and financing of education and training must remain within the Member States. In this, they will have the full support of the Structural Funds, particularly in less-developed regions, which are the main Community financial instruments in this field. In this context, the ESF will provide support for improving the quality and responsiveness of education and training systems, as well as for investing in human capital. Member States will also be able to take advantage of the next generation of Community Initiatives.

- 2.2 The Structural Funds operate through authorities designated by Member States. However, action more directly supported by the EU can also complement activities throughout Member States in the field of education and training, and can achieve results only available through Community action and at Community level. Enabling the mobility not only of students, trainees, adult learners, teachers, trainers, and academics, but also of practices and ideas, is an important area where Member States' own actions will not produce the necessary results; and it is crucial to the development of the knowledge society, since it entails the direct transmission and experience of new approaches and skills and, equally importantly, promotes networks of institutions that co-operate at a European level.
- 2.3 The importance of mobility and of partnerships in this context is sometimes underestimated. Trans-national comparison at system level is a highly effective means of promoting change; the debate around the PISA results is a case in point. Exchange and mobility actions have a similar effect, but on individuals, and from the grass-roots upwards. Exchanges, mobility and trans-national partnerships bring participants to confront what others do, and can do, and to look at their own performance in a new light. In this respect, exchange and mobility provide a response to one of the key challenges facing education and training systems: how to motivate learning facilitators to review and up-grade their professional practice and to cope with the increasing demands made of them.
- 2.4 It is this trans-national and individual element which distinguishes the impact of the education and training programmes from the many actions to improve quality in the field undertaken nationally, some of which are also supported by the Union through the Structural Funds. These actions, often excellent in their design and delivery, generally remain within a national or regional context; so the element of outside and individual comparison often does not arise in the same way<sup>7</sup>. Research into the impact of transnational exchanges confirms this. Indeed, Erasmus students say overall that their exchange experience has been the most significant new experience in their lives. In this sense, the education and training programmes are agents of change and modernisation within the education and training systems of the Union.
- 2.5 Education and training cooperation is not just an internal matter for the EU. The external dimension, famously encapsulated in the Tempus programme and recently extended through Erasmus Mundus, addresses an equally important and distinct set of needs. Cooperation in education and training is a very powerful instrument at the

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<sup>7</sup> The Interreg Community initiative is a notable exception. It aims to strengthen economic and social cohesion throughout the Union by fostering the balanced development of the continent through cross-border, transnational and inter-regional cooperation. This cooperation can be in education and training, depending on the needs expressed by the regions concerned.

service of strengthening relations with third countries and for fostering mutual understanding between EU countries and those beyond our borders, particularly but not exclusively those forming the “new neighbourhood” countries adjoining the enlarged Union. For this reason alone it is essential to reinforce our activities in this sphere in the future. But the benefits extend further. The evaluations of Tempus have shown that cooperation in education and training is key for the transition of countries that may become candidate countries in the short term. And the benefits do not flow all in one direction. It is essential that our systems become more and more open to the rest of the world, that we are able to learn from and absorb excellent practice wherever it is found, if the EU is to achieve the goal set at the 2002 Barcelona European Council of becoming a world quality reference in education and training.

- 2.6 It is for these reasons that the Commission believes it is essential to continue with the internal and external Community cooperation programmes in education and training in the coming years, to integrate them under the unifying principle of lifelong learning, and indeed to expand their volume and scope significantly, as explained in Parts Four and Five of this Communication.
- 2.7 The new programme framework for Community action in education and training must also respond to a range of political, social, economic and cultural factors. These challenges are not specific to education and training; and in some cases other instruments – in particular those of the Employment and Cohesion policies – have the financial leadership. However, cooperation in the field of education and training at European level has a unique and valuable contribution to make.

### **Mobility**

- 2.8 The transnational mobility of people is beneficial to Europe as a whole. It enriches national cultures, and enhances the cultural, educational and professional experience of those taking part. Such experience is increasingly necessary given current limited employment prospects and a labour market which requires more flexibility and greater adaptability to change. And, as outlined above, mobility is a significant factor leading to system change through direct shared experience. In recognition of its growing importance, the Parliament and Council adopted in 2001 a Recommendation on facilitating the mobility of all those in education and training<sup>8</sup>. The Commission considers that the new programme generation will be one of the most important instruments for enhancing the volume and quality of transnational mobility, and therefore will make the action a strong part of its legislative proposals.

### **Language Learning**

- 2.9 Following the European Year of Languages in 2001, the Commission organised a public consultation “Promoting language learning and linguistic diversity”, on the basis of which it presented an action plan on language learning<sup>9</sup>. This concentrates on three main areas: extending the benefits of life-long language learning to all citizens, improving language teaching, and creating a more language-friendly environment. The Union, by its trans-national and multi-lingual nature, is looked to by its citizens as a promoter (and indeed guarantor) of linguistic diversity.

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<sup>8</sup> OJ L 215 of 9.8.2001.

<sup>9</sup> COM(2003) 449 final.

### **Information and Communication Technologies**

- 2.10 The Community has supported the development of pedagogy linked to information and communication technologies over many years and in a number of ways, most recently through the Minerva action of Socrates and the adoption of the eLearning programme<sup>10</sup>. As the effect of the information and communication revolution spreads across society, it will become increasingly important for all citizens, without exception, to be comfortable with the use of these technologies.

### **Social changes**

The Commission's Third Cohesion Report has identified a number of challenges for the enlarged Union. As concerns investment in people and human capital in particular, the Report highlights the need to concentrate Cohesion interventions and other Community instruments - such as Community programmes for co-operation and mobility in the field of education and training - on the four main areas below

#### *An ageing society means longer to learn*

- 2.11 The ageing of society continues. The demographic pyramid of the European Union is increasingly top-heavy, as survival rates rise and pension and health-care burdens grow accordingly. This issue has been addressed in the 2003 Employment Guidelines<sup>11</sup>, which invite Member States to develop policies for active ageing, as well as setting a specific target for the employment rate of older workers.

#### *A rapidly evolving labour market*

- 2.12 Globalisation and the new knowledge-driven economy have brought about dramatic and rapid changes in the European labour market. As the Employment Guidelines and the Broad Economic Policy Guidelines<sup>12</sup> recommend, our education and training systems must provide the European labour force with the necessary skills to cope with changes. European programmes can significantly contribute to this process, both by providing citizens with an opportunity to upgrade and acquire new skills through periods of study and training abroad, and by promoting quality and adaptation to the new requirements of education and training systems through a process of cooperation and exchange of good practice.

#### *A more diverse society*

- 2.13 Societies within the EU continue to become more culturally diverse and more interlinked with others, as a result of globalisation and new communication technologies on the one hand, and the impact of the European single market and migration on the other. This puts a premium on the development of intercultural understanding and respect, and on the inculcation and reinforcement of habits of active citizenship. At the same time, there is an increasing need to deepen understanding among our citizens of the nature of European identity.

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<sup>10</sup> Decision No 2318/2003/EC of the Parliament and the Council, OJ L 345 of 31.12.2003.

<sup>11</sup> COM(2003) 170 final.

<sup>12</sup> Decision No 578/2003/EC of the Council, OJ L 197 of 5.8.2003.

*Contributing to social inclusion*

- 2.14 Initial education is the gateway to future life chances. Special attention must be paid to making sure that negative initial experiences with formal education do not lead people to turn their backs on learning for the rest of their lives. On the contrary, every effort must be made to provide those who have left education without basic qualifications with alternative “second chance” opportunities for access to education and training suited to their needs. For this to be a success, innovative pedagogical approaches will be needed, as well as specialised guidance facilities, links with local enterprises and other measures designed to create a motivating learning environment within which second chance education can develop its full potential.

**External developments in Education and Training***Higher education – Tempus and Erasmus Mundus*

- 2.15 Community policy for countries outside the European Union has focused for more than a decade through the Tempus programme on higher education institutions and systems, on the grounds that they are of particular importance for the social and economic transition process as well as for cultural development. They are also pools of expertise and of human resources and provide for the training of new generations of political, administrative and business leaders. Initially designed for countries emerging from Communism (including most of the current accession countries), the programme has been extended at various stages to include the ex-Soviet Union countries, the Western Balkan countries, and the Mediterranean countries. It currently operates in 27 countries, stretching from Mongolia to Morocco.
- 2.16 Although the Tempus programme is fundamentally geared toward assisting partner countries, the programme also gives Member States better access to areas of knowledge where the highest level of development has been reached outside the Union and creates enduring and mutually-beneficial partnerships.
- 2.17 Tempus has been the flagship education programme for exchanges with countries outside the EU and its EFTA/EEA and candidate country partners. But it has not been the only one. In 1995, specific agreements for exchanges in higher education were made with the United States of America and with Canada, and the Commission itself has launched other programmes, based on the experience of the major internal programmes, with Latin America (ALFA and ALBan), and with Asian countries (Asia-Link), as well as pilots with Japan, Australia, and New Zealand.
- 2.18 There has recently been increasing recognition of the importance of higher education as a vector of internationalisation, and thereby of economic growth and development. Universities have found themselves in tougher competition for the best talent, particularly in research; and this competition is not limited to the EU but is world-wide. The Erasmus Mundus programme<sup>13</sup> will promote European Masters’ courses, operated by multinational consortia of universities, with an associated programme of student scholarships aimed at the best students from the rest of the world. It represents a first response from the Union to this phenomenon.

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<sup>13</sup> Decision No 2317/2003/EC of the Parliament and the Council, OJ L 345 of 31.12.2003.

*Future needs*

- 2.19 The complex of factors underlying the Union's cooperation policy with its near neighbours (and the other countries associated in the Tempus programme) may be summarised as follows:
- Education and training are key developmental factors for our near neighbours and our partners. It is in Europe's interest to promote the democracy, prosperity and stability which growth alone can ensure. In this respect, cooperation in education and training has an important part to play in the Union's development assistance.
  - The "people-to-people" contacts forming part of the external dimension of education and training are increasingly understood as contributing to intercultural dialogue, and, through their influence on systems, have a greater impact than a simple head-count might suggest. They also provide the Union with a valuable instrument of cultural diplomacy which creates a wider understanding of the specificities of our own culture and heritage and is sought after by partner countries as a means of enriching their own education and training provision.
  - Contacts with education and training systems in partner countries through exchange and cooperation programmes develop synergies and convergence with systems within the Union, and thus increase their attractiveness to partner countries.
- 2.20 The Tempus programme has proved its value in contributing to the modernisation of the higher education systems in partner countries, in fostering closer links between EU countries and those outside the Union, and in preparing countries for candidate status. It is a powerful instrument that has great potential for expansion. It has shown that education systems in the EU (and those who run them) have both the capacity and the willingness to help their counterparts develop their own systems.
- 2.21 However, although the contribution of higher education to growth is significant, in countries with a lower overall level of economic development, improving basic education and vocational education and training are necessary complements. Higher education alone will not affect all citizens, and can only play a limited part in helping the overall development of a country and its people and in nurturing its constructive relationship with the Union. The enlargement of the EU fundamentally alters the political, geographic and economic weight of the EU in the world and in the surrounding regions, and correspondingly demands a policy towards Europe's new neighbours which deepens and widens cooperation in education and training. If the Union's ambitions are high, as the Commission believes they should be, then the Union must be prepared to go beyond higher education, and to reach out to the education and training systems overall, since it is only in this way that maximum impact can be achieved. This implies that we should develop Tempus beyond higher education so that it contributes to improving all the elements in the lifelong learning process – from schools through vocational education and training to university and adult education.

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**PART III – THE EXPERIENCE OF THE PROGRAMMES****Experience of Socrates and Leonardo da Vinci – Interim evaluations**

- 3.1 The Commission has drawn on a substantial bank of experience of programmes in education and training. The most recent and most significant input is the interim evaluation reports on the current phases of Socrates and Leonardo da Vinci, which were published in March 2004<sup>14</sup>. The main messages are:
- The coverage and focus of the programme actions are generally regarded as valuable and appropriate.
  - The administrative and financial procedures have improved since the first phase, but are still perceived as disproportionately burdensome and slow. Similarly, some selection procedures<sup>15</sup> need an overhaul.
  - There is a need for more synergy and coherence between actions and programmes.
  - Good results under the programmes are not well disseminated.
  - There is a need for stronger links between the programmes and policy developments.
  - Excessive detail in the current programme legislations causes problems of implementation.

**Experience of Tempus III – Interim evaluation**

- 3.2 The main messages to emerge from the Tempus interim evaluation report<sup>16</sup> are the following:
- Tempus has been adapted well to changing geo-political and socio-economic conditions in Europe and in the Tempus partner countries over the past ten years.
  - Formidable socio-economic development challenges remain and reinforce the case for giving priority to training and higher education reforms.
  - More emphasis is needed on mobility, dissemination of outputs and outcomes, dialogue with national authorities, and more effective structural intervention in the field of higher education.
  - The programme's re-orientation towards a more strategic approach increased its impact on legislation in the partner countries and led to greater openness and preparedness for international cooperation in these countries.

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<sup>14</sup> COM(2004) 153 and COM(2004) 152.

<sup>15</sup> In particular, the Leonardo da Vinci "B" procedure.

<sup>16</sup> COM(2004) 157.

### **Public consultation on the future development of the programmes**

- 3.3 In the light of the policy developments set out above, the Commission conducted between November 2002 and March 2003 a wide consultation of all those involved in or with an interest in the education, training and youth programmes. A detailed report has been compiled for the Commission by the *Pôle Universitaire de Nancy-Metz* and can be read on-line<sup>17</sup>. The main outcomes are:
- Great enthusiasm for the programmes, in particular for mobility measures.
  - A belief that the programmes should contribute to the development of the European dimension and European citizenship and to the teaching of languages, and strong expressions of interest in the regional dimension of the actions of the programmes.
  - A very strong feeling that the programmes are bureaucratic, inflexible, and over-complicated, particularly in regard to the very small amount of most grants.
  - A view that decentralised procedures (those handled via National Agencies within the participating countries) are simpler and more user-friendly than those handled directly by the Commission.

## **PART IV – INTERNAL POLICY: THE INTEGRATED PROGRAMME FOR MOBILITY AND CO-OPERATION IN LIFELONG LEARNING**

### **Orientations for the new generation of programmes**

- 4.1 The Commission has considered the various elements set out above, in the light of the policy mandate given by successive European Councils, of its own policy reflections and of its experience of current and previous programmes, and proposes:
- To retain at this stage separate programmes targeting the EU<sup>18</sup> on the one hand, and neighbouring countries on the other. This architecture is judged to take best account of the fact that the type and purpose of activities in education and training cooperation are, as analysed above, different in nature in these different contexts.
  - In the light of the ever-increasing integration between education and training actions and institutions across the EU, and of the emergence of the lifelong learning paradigm, there are major benefits to be gained from bringing together the fields covered by the Socrates and Leonardo da Vinci programmes into a single structure. Such a combined programme could better support policy developments in the participating countries, respond more effectively to the needs of its users, and permit simplification and efficiency gains at the level of programme implementation, particularly in areas that currently cross the divide between education and training. The Commission will therefore propose an “Integrated Programme”, covering both education and training within the EU.

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<sup>17</sup> Available at [http://europa.eu.int/comm/dgs/education\\_culture](http://europa.eu.int/comm/dgs/education_culture).

<sup>18</sup> Including EEA/EFTA and candidate countries once the appropriate agreements are concluded.

- Within this Integrated Programme, the importance of education and training to the achievement of the Lisbon goal, the emergence of the Bologna and Copenhagen processes, the objectives process, and the related policy developments outlined earlier, all demonstrate the need for clearer instruments to support policy development. Other related policy initiatives at Community level (eg, the eLearning programme or the Europass initiative) should also be incorporated. Finally, the Commission sees advantage in bringing the Jean Monnet Action into the broad structure offered by the Integrated Programme, together with support for key European-level institutions in the field such as the European University Institute (Florence) and the College of Europe (Bruges and Natolin), in order to place the funding of these activities and institutions on a firmer and more strategic footing than hitherto, and to permit synergies between these actions in the field of European integration and cooperation in education and training more generally.
- In order for European cooperation in education and training to play its full part, and to respond to the increasing importance of the field in every Member State and at European level, the Commission will propose a much more substantial programme for the next programming period. The bulk of the increase occurs in the decentralised actions of the programme, principally in the area of transnational mobility for individual citizens, where applications are made directly to designated National Agencies in each country, which have the detailed knowledge of the national circumstances and how best to meet the needs of the individual programme users.
- Over the next programming period, the annual budget for the proposed Integrated Programme could increase by four times compared to the current level. Funding at this level would permit the achievement of a set of ambitious but realistic targets, commensurate with the political importance of the new programme. These are explained in paragraphs 4.4 to 4.7 below.
- The programme should be simplified and made more flexible. The new programme legislation should limit itself to the fields of activity and the generic types of action to be supported, with much of the detailed implementation arrangements to be set out in the programme guidelines agreed with the programme Committee.
- There should also be as much commonality as possible between the constituent programmes. Every programme within the integrated framework will draw from the same set of generic actions (mobility, projects, networks, etc), which should allow for more consistency and transferability between them. In place of the current complex of programme committees and sub-committees, there will be a single programme Committee, which will meet in different formations (eg, schools, VET) as appropriate. Each formation will wield the full range of powers, which will eliminate the delay currently caused by the obligation to refer some matters to several committees successively.
- The Integrated Programme will be open to the participation of all those countries currently involved in Socrates and Leonardo, and may be extended to

Switzerland and the Western Balkans<sup>19</sup>. Further important flexibility will be the use of up to 1% of the programme budget to fund the involvement of institutions from non-participating countries, where this adds value to the activity in question. This is a major advance on the current generation, where a feeble EUR 250,000 is available in each programme to fund such action, and the procedures for implementing it are so burdensome that it has never been used in Leonardo.

### The design of the programme

- 4.2 The Integrated Programme will contain four separate sectoral programmes: for school education (Comenius), for higher education (Erasmus), for initial and continuing vocational education and training (Leonardo da Vinci), and for adult education (Grundtvig). Their coverage will be based on the existing programmes, but with some adjustments. In addition to the four sectoral programmes, there will be two horizontal programmes. The “transversal programme” will cover the cross-cutting issues: support for policy development; language learning; new information and communication technologies; and dissemination and exploitation of results. The Jean Monnet Programme will support a range of institutions and activities focused on European integration: the Jean Monnet Action itself, provision of operating grants for a set of key institutions, and operating grants for European associations active in the fields of education and training.

<b>Integrated Programme</b>			
<b>Comenius</b> School education	<b>Erasmus</b> Higher education & advanced training	<b>Leonardo da Vinci</b> Initial and continuing vocational education and training	<b>Grundtvig</b> Adult education
<b>Transversal programme</b> 4 key activities – Policy development; Language learning; ICT; Dissemination			
<b>Jean Monnet programme</b> 3 key activities – Jean Monnet Action; European Institutions; European Associations			

- 4.3 A major difference between the current generation and the Integrated Programme would be the scale of the activity. The Commission would propose a very substantial increase in the decentralised actions, particularly mobility and partnerships, in order to reach a number of numerical objectives set out below. In all programmes this would represent a step-change from the current level of activity. Such a proposal would attribute a level of resource that is appropriate to the stated ambitions<sup>20</sup> and growing political importance of this type of action, and responds to massive

<sup>19</sup> The Tempus Plus programme will contribute to preparing the countries of the Western Balkans for subsequent participation in the Integrated Programme.

<sup>20</sup> The existing Socrates Decision already includes the target of reaching 10% of university students and 10% of school pupils, but the resources allocated to the programme are far too low to permit these objectives to be achieved. The current level of activity represents some 2-3% of the school pupil population and 3-4% of the university student population.

unfulfilled demand among European citizens. It is clear that such a substantial increase in the decentralised actions would require reinforcement of the network of National Agencies charged with implementing them. The Commission would therefore plan to increase the level of support it grants to these agencies.

#### **The four sectoral programmes – Comenius, Erasmus, Leonardo da Vinci, Grundtvig**

- 4.4 As far as the **Comenius** programme is concerned, the proposal is for the existing range of action to continue largely as at present. It will encompass individual mobility, school partnerships, multilateral projects, Comenius networks and accompanying measures. The decentralised mobility and partnership actions would increase in volume by a factor of four, so as to achieve the participation of 10% of pupils in joint educational activities (partnerships and mobility) and of 10% of teachers in mobility activities over the seven-year lifespan of the Integrated Programme.
- 4.5 The most visible proposed change to the **Erasmus** programme is a very substantial increase in student and teacher mobility. Currently just over 120,000 students participate in Erasmus mobility annually. Under the new programme, that rate would need to increase to some 375,000 per year, in order to reach the target of three million Erasmus students by 2010. At the same time, the average student grant has remained unchanged since 1993 at EUR 150 per month. This represents a 25% cut in value in real terms. Clearly the target cannot be achieved without a substantial increase in the level of the grant; under the Commission's proposal the monthly average would increase to EUR 250. Teacher mobility is planned to increase to 40,000 per year, from a level at present of some 18,000, with a similar boost in the grant level. Work placements for university students and staff will also be incorporated.
- 4.6 The new programme proposal envisages a number of changes to **Leonardo da Vinci**. Placements for trainees would see a substantial increase to 150,000 per year by the end of the programme, from their current level of some 45,000. A similar increase is envisaged for trainer mobility. The current pilot projects action will be re-cast to focus on the transfer of innovation from one or more countries to another, and the administration of these projects will be entirely decentralised to the National Agencies, rather than shared with the Commission as at present. Leonardo networks will be introduced in the new programme, to focus on issues of common European interest in a similar fashion to the Erasmus thematic networks. There will be a new Leonardo "Partnerships" action to promote exchange of expertise between training providers. Project activities and accompanying measures will also continue.
- 4.7 Under **Grundtvig**, new mobility actions are proposed to support the mobility of adult learners, staff exchanges, European assistantships, and an expansion of the training opportunities for adult educators addressed by the current Grundtvig action. Given the demographic changes forecast for the next decade, it is essential to make the European dimension of mobility available not only to younger citizens and those that teach or train them, but also to adults in lifelong learning more generally. The aim is that at least 50,000 adults should benefit from such mobility per year, and that by the end of the programme at least one in five structured adult education providers should have participated in European cooperation. The instruments to achieve these targets will be mobility grants and European learning partnerships. The centralised activities

of Grundtvig will include strategic as well as smaller-scale cooperation projects, networks, training courses and accompanying measures.

### **The transversal programme**

- 4.8 The transversal programme represents one of the innovations of the Integrated Programme. It is designed to provide better support than has been possible up to now for cooperation on issues that do not fit easily into one of the sectoral programmes, or that have a potential interest and impact across the entire programme.
- 4.9 The **policy development** key activity will provide a more stable and comprehensive source of support for work at European level that is directly related to key policy priorities. This key activity will permit the Community to sustain the follow-up to the objectives process and the lifelong learning resolution at European level, to invest in an appropriate way in the collection and analysis of statistics and indicators, to support experimental projects to test cutting-edge policy ideas (in a similar way to the “Tuning” project), and to support the appropriate reference and analytical structures that underpin the actions of the programme at European level.
- 4.10 The **language learning** key activity is conceived as a complement to the high-volume language activity integrated into the sectoral programmes, such as some 30% of Comenius mobility and partnerships. It responds to a clear message from the public consultations on the future programmes and on the language action plan, that languages should be a high priority for visible, substantial and exemplary support at European level. The language learning key activity focuses on aspects of language learning that span more than one sector, such as the development of generic language learning materials, networks in the fields of language learning and linguistic diversity, and marketing, publicity and information. Similarly, the key action on **information and communication technologies (ICT)** will focus on cross-cutting activities aimed at the development of innovative ICT-based content, services, pedagogies and practice for lifelong learning. It will be implemented through multilateral projects and networks, and through other action such as observation, benchmarking, and quality analysis.
- 4.11 The **dissemination and exploitation of results** key activity is entirely new as a dedicated part of the programme, and is designed to make the process of spreading and capitalising on the results and products of the programme more systematic and effective than before, building on experience gained in particular under Leonardo da Vinci. Both the public consultation and the evaluation reports point to dissemination/exploitation as a major weakness in the implementation of the existing programmes. To address this, the Commission will create a dedicated activity, with earmarked resources and clear objectives, which will permit the building-up of a solid body of expertise in the field and will provide the necessary continuity of funding to make the action effective in the longer term. The action will be implemented through multilateral projects and the collection and study of data, good practice and products resulting from the programme.

### **The Jean Monnet programme**

- 4.12 The Jean Monnet programme will consist of three key activities, all focusing on aspects of European integration: the Jean Monnet Action itself, support for specific

European institutions, and support for European associations in education and training.

- 4.13 The **Jean Monnet Action** will carry forward the valuable work it has so far undertaken, and will encompass the support for research into European integration hitherto funded under budget line A-3022. It will continue to support Jean Monnet Chairs, associations of professors, other higher education teachers and researchers specialising in European integration, support for young researchers in the field, information activities, and the establishment of multilateral research groups.
- 4.14 The key activity to support **European institutions** will consist of the allocation of operating grants to organisations at European level. These should include the College of Europe (Bruges and Natolin campuses); the European University Institute, Florence; the European Law Academy, Trier; and the European Institute of Public Administration, Maastricht. In particular, the Commission will propose funding for the establishment of a European post-doctoral college at the European University Institute, to focus on advanced research in its fields of specialisation. Further operating grants for institutions will be awarded on a competitive basis following calls for proposals.
- 4.15 Under the third key activity, operating grants will be allocated to support the running costs of **European associations** active in the fields of education and training, which act as European groupings of national and regional associations, selected on a competitive basis following calls for proposals.

#### **PART V – EXTERNAL POLICY: TEMPUS PLUS**

- 5.1 The Commission believes that the Union should offer the current Tempus countries a programme with coverage parallel to the Integrated Programme for lifelong learning, even if its instruments and structure must be significantly different. The Commission therefore proposes not simply to renew the Tempus programme but to create “Tempus Plus” – a programme addressing these wider needs in a structured context which builds on the successes of Tempus, but adds the new dimensions which the evaluations and the new content require. It would therefore cover, in addition to the traditional Tempus area of higher education, the areas of school, vocational education and training and adult education. To resource such a major increase in scope would require a significant budgetary increase.
- 5.2 As regards geographical scope, the Commission believes that the ensemble of Tempus countries should continue to benefit from the cooperation and assistance that Tempus has provided. However, it may no longer be appropriate to treat them all on the same basis. Tempus Plus should enable sectors of cooperation to be chosen in the light of the needs and priorities of each of the partner countries. Thus, the full range of cooperation across all sectors might be appropriate for some, while for others vocational education and training might represent the highest priority. Using this modulated approach, it is envisaged that Tempus Plus should become a privileged instrument to develop the “New Neighbourhood” policy set out in the 2003 Commission Communication<sup>21</sup>.

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<sup>21</sup> COM(2003) 104 final.

- 5.3 Tempus Plus should also be open to the Western Balkan countries, whose prospect of eventual membership of the Union was confirmed by the Copenhagen Council in December 2002 and most recently at the Western Balkans summit in June 2003. Here, too, closer cooperation in the field of education and training is an important component of the overall development strategy. Just as the Tempus programme facilitated the transition of the current acceding countries into the mainstream Community education and training programmes, so the Western Balkans, which joined the current phase of Tempus only recently, should retain access to this type of support. Obviously, when individual countries transfer to the internal Integrated Programme, they would withdraw from Tempus Plus.

#### **Tempus Plus – an assistance programme for Lifelong Learning**

- 5.4 The proposed Tempus Plus programme should therefore be based, like Tempus, on cooperation between systems and institutions in the EU and their counterparts in the eligible countries. Its objectives will be:
- to foster the development of human resources and human capital, and in particular to promote the reform and development of lifelong learning systems in the partner countries;
  - to enhance the quality and the capacity of lifelong learning institutions and organisations in the partner countries.

The aim would be to support the mobility of 100,000 individuals over the lifetime of the Tempus Plus programme.

- 5.5 It would be divided into four strands, each of which would build on work already done in partner countries, and would seek to support them in development work as follows:
- A **Systems strand**. This would support partner countries' work in areas which affect the effectiveness of education and training systems as a whole, such as qualifications issues and frameworks; management and policy development; forecasting of needs and possible responses; promoting flexibility and permeability between different parts of the education and training systems. It would also promote convergence between the lifelong learning systems of partner countries and those within the European Union.
  - A **Schools strand**. This would support partner countries in areas such as content, curricula and qualifications; the acquisition of the basic skills - literacy, numeracy, languages - as well as skills in information technology, entrepreneurship, social and intercultural skills, learning skills; and teacher training.
  - A **Higher Education strand**. This would build on existing Tempus activity to support partner countries in reforms to higher education, including activities aimed at capacity building as well as measures leading to convergence, equality of access to higher education, better responsiveness to labour market needs; and enhancing the capacity of higher education to contribute to economic development generally

- A **Vocational Education and Training strand**, which would also embrace adult education. This would support partner countries in areas such as providing learning opportunities to meet the needs of adult learners; the mutual recognition and transmission of qualifications and of learning, in particular non-formal and informal learning; strengthening VET and adult education systems; the promotion of active citizenship, active ageing and social cohesion and inclusion; or improving occupational guidance and counselling.

5.6 The instruments available to support this will be of four types:

- **System measures:** these will contribute to the development and reform of education and training systems in partner countries, as well as to enhance their quality and increase their convergence with those of the European Union. They will operate on themes agreed with partner countries, and will cover issues such as support for policy development and reform, systems and capacity development (including through mobility), studies and research, provision of expert advice, conferences, seminars and training and development activities.
- **Joint Projects:** these will resemble the classic Tempus projects. They will enable institutions in the EU and in partner countries to join forces and work together on all areas of education and training. These include the joint teaching projects, but also other areas such as curriculum, teaching and learning materials, management issues, and in-service training. This type of action will also include student and staff mobility, which the Commission believes (and as the evaluations suggest) should be considerably increased. It will also include a network action, which could operate either independently or in association with networks supported under the Integrated Programme.
- **Mobility:** In addition to the mobility supported under Joint Projects, this action will provide further opportunities to improve cooperation and enhance mutual understanding between Europe and its neighbours. Mobility will take place between EU Member States and partner countries at every level of the programme. It will include individual mobility (along the lines of the current Tempus Individual Mobility Grants) as well as group mobility.
- **Accompanying Measures:** these will contribute to the development of common understanding and cooperation in lifelong learning. They may include exchanges of experience on policy issues; observation and analysis of policies and systems; the development of indicators and benchmarks and statistical surveys; and information and dissemination activities.

These four types of instrument form a package which offers both partner countries and the EU a variety of ways to interact and to effect reform. Their operation will require considerable expertise, and where appropriate, the Commission will draw on the experience of the European Training Foundation.

## PART VI - SIMPLIFICATION

6.1 In its Communication on the Financial Perspectives, the Commission underlined the importance of using the revision of programme legislation which occurs in 2007 to simplify the conception and in the operation of Community instruments. The two

new programmes mentioned in this Communication will contribute significantly to this. From the formal perspective alone, they represent a reduction in the number of the legal bases in education and training from seven at present to three – the two programmes here and the Erasmus Mundus Programme, which has been so recently adopted that it would be inappropriate at this stage to amend it. Similarly, it represents a reduction from fifteen budget lines to three.

- 6.2 More importantly, however, the new programmes – particularly the integrated Lifelong Learning Programme – will be simpler for the user, for a number of reasons. First, a greater proportion of the actions will be managed in a decentralised manner through National Agencies – over 80% of the programme budget. The public consultation<sup>22</sup> showed that users regard this management method as more user-friendly than direct management at Community level, since the Agencies are familiar with the circumstances in their country, and can respond at once with the appropriate knowledge and in the national language. Secondly, the legislative decisions will be written in a much less detailed manner, making it easier both to understand their content and to adapt it to future developments in the field. Thirdly, the Commission will include in the draft legislation a provision that beneficiaries' financial and administrative obligations must be proportionate to the size of the grant, for example through an increased use of lump sums and flat-rate grants, with the intention that this should lead to significant procedural simplification. The aim here is to respond to the demand in the public consultation to reduce the complexity which is widely seen as the most negative aspect of these programmes.
- 6.3 The Commission regards these measures as an important step towards simpler programmes, but certainly not the end of the road. The Commission is interested to receive suggestions how the programmes and their operation could be simplified, and will seek to include these in its draft proposals. These may indeed imply amendments to the Community's Financial Regulation or its Implementing Rules, for example; but no possible avenue should be excluded at this stage.

#### **NEXT STEPS AND TIMETABLE FOR ADOPTION**

The Commission is putting forward this paper in order to put its intentions for the next generation of programmes in the fields of education and training into the public arena as early as possible. Given the necessary length of debate around such proposals, which is mirrored by the time needed for completion of the co-decision process between the European Parliament and Council, it is necessary to start this discussion as soon as possible if there is to be a reasonable chance of adopting the final texts in early 2006, to leave as near a full year as possible before the implementation of the new programmes. The Commission expects to present its formal legislative proposals before the summer break 2004.

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<sup>22</sup> See paragraph 3.3 of this Communication.

# Transcript of Address to General Assembly Hania September 2004

James HORAN

Dublin, Ireland, President of the EAAE

You are all very welcome to the General Assembly of the EAAE. It is my intention, first of all, to briefly describe to you what has occurred since this time last year. The Council has had a number of meetings during the year and the underlying theme of the discussions at the Council has been the future of EAAE while at the same time dealing with the day to day business of running the Association. On the opening night of the Chania meeting we were reminded that this is the seventh meeting of the Heads of Schools. Where children are concerned, being seven years old is regarded as reaching the first stage of maturity. It's the time when children are expected to take a certain amount of responsibility for their actions. Perhaps this Seventh Meeting has that significance for us. We are coming of age. More significantly, next year, 2005, the EAAE will be thirty years in existence. With that in mind it is our intention to continue the process of re-evaluation and to look towards the future and the role of the Association in what is definitely a changing environment in Europe and indeed a changing environment globally. The discussions we have had this week already clearly indicate that there is significant change ongoing in architectural education and we, as a representative Body of educators, have to be entirely cognisant of this. More particularly we should be leaders in the field. Ours is the group who should decide what the future of architectural education in Europe will be.

As part of the work of Council we have drawn up a series of protocols and guidelines to structure in a clearer way where our work is going and how it will develop in the future. Because of that we have identified a three level structure within the Association. This consists firstly of the President, Vice-President, Treasurer and Council Members who become the Executive Body of the Association. Traditionally the work of Council was supported by a series of Project Leaders who carried out various tasks on behalf of the Association. These roles will continue and I intend to talk about each of these later. In the coming year however, it is our intention to introduce another layer of responsibility which will form a greater sense of coherency between the Council and the Project Leaders and between Council, Project Leaders and the Membership. The intention here is to identify individual members of Council who will, in addition to their Council duties take a responsibility for certain areas of activity relating to the Project Leaders. This will mean that all of the activities of the Association will be structured in a manner that will ensure a full reporting mechanism and, as the Council membership changes, which it will naturally do over time, the lessons of the past are fully documented avoiding the need to reinvent the wheel with each change of administration. With that in mind the areas in which we have initially identified as important, but by no means exhaustive, are as follows:

## **Publications and Conferences**

These form a significant aspect of the work of EAAE. These are the methodologies by

which we discuss and debate matters among ourselves and they are also the means by which we communicate with others. The result and the fruit of those discussions can only be communicated to Schools and others involved in architecture if we publish. This publishing activity should encompass books and reports, leaflets, the website, the news sheet and any other method deemed appropriate.

### **Knowledge and Information**

The second area that is regarded as important is the entire area of knowledge information and a database to contain this knowledge. Knowledge is really our greatest asset. What we possess most of all is what we know. It is an objective to establish a well developed database of knowledge, of contacts and of documents related to Architectural Education and other Associations appropriate to EAAE. The strength of EAAE will come from the knowledge it possesses.

### **Research**

The third area of significance is the area of research. Needless to say the sense of development and moving forward to the future and pre-empting problems before they occur is very often part of the work of research. The position of research and the nature of research in architecture is currently a topic which is generating considerable debate. We must engage in these discussions and become a forum for their advancement. The Council will need to identify someone who will be responsible for co-ordinating these efforts.

### **Public Relations**

Quite separate from the publication activities there is need for good public relations. A public relations policy will be developed between the Association and the Schools it represents, between the association and other organisations across the world who have an interest in architecture and architectural education and between the association and the public in general. We have a responsibility as educators to extend the educational process beyond the formal tasks in our Schools. There is a growing understanding that Schools and Universities have a responsibility outside of their perimeter walls. We would see our association as having a role in developing that thinking process and enhancing the role of Schools of Architecture in the communities in which they are located.

### **Finance and Sponsorship**

Underpinning most of this is of course the single significant area of finance. Finance in fact is what allows us to operate. I suppose, you could say, it is a necessary evil, but nevertheless it is necessary and the association needs to have financial stability in order to carry out its work. You are aware of course that in the last year we increased the membership fee, and I am delighted to say that the existing Schools, almost without exception were able to accept that increase. This has provided the Association with additional financial flexibility. Tied-in with finance there is the question of sponsorship. You are aware that there have been many types of sponsors involved with the work of the Association to date. We are conscious of the need for sponsors, but we are also

conscious of the fact that sponsorship is something that has to be seen in a specific light by the Association. This is not an area where the Association becomes the performer on behalf of a sponsor. It is important to find sponsors who are prepared to support the activities of the EAAE as defined by the Association. This is one of the delicate areas that we need to explore. We need to be grateful to our sponsors while at no time losing our integrity or our identity.

### **Links with Other Organisations**

Finally, there is the question of a series of relationships with other organisations, particularly those who are involved in architecture and architectural education. In particular there is our relationship with our counterpart in the United States - the ACSA, and our relationship with the ARCC and other organisations representing both the profession and the educators of in Europe and beyond.

The Council of EAAE set down a number of initial objectives relating to the above mentioned points at the start of last year. Some of these have already been achieved or partially achieved but many of them will remain on the objective list for the Association going into the future.

The first objective is the development of a fully professional association with a permanent Secretariat. In the thirty years since EAAE was founded it has steadily grown to the point where it needs this sense of permanence that will result in the association being in a position - irrespective of the membership of Council, or irrespective of who holds the Presidency - to continue the work of the Association in a seamless manner. In order to be able to engage with others on a fully professional basis we must also be seen to be fully professional.

The second objective is to increase the membership of the Association. At the moment there are more than 100 Schools of Architecture participating in one form or another. It is the ambition of the Council to significantly increase the number of participating Schools. We have a number of vehicles by which this can be achieved. Within Europe itself of course we will be endeavouring to encourage Schools to become full members and fully participate in the work of the Association. Outside of Europe we will be inviting Schools to take up associate membership and become aware of what is happening in Europe at this very important time.

The third area of importance is to increase the involvement of existing member Schools at as many levels as possible. Last year Council wrote to all member Schools and invited them to submit nominations for new members of Council. I am pleased to say that a large number of Schools and individuals responded to this request and many nominations were received. In fact, the list was so impressive that we felt obliged to write to the individuals who had been nominated and asked them to present a short statement as to how they would see their skills and experiences being valuable to Council and the Association as a whole. Stemming from that we received a variety of both interesting and erudite submissions and as a result new Council members are now being proposed. Before discussing this issue and asking the General Assembly to approve the new Council members I would now like to refer to the individual areas of activity which have occupied the time of both the council Members and the Project Leaders during the past twelve months.

### **The News Sheet**

You will see that the News Sheet which is our principal arm of communication has had a face lift. Those of you who have seen the most recent edition will be aware of the change in design and presentation and the expansion of both size and contents. The news sheet continues to grow. This work has been due to the efforts of Anne Elisabeth Toff. I would like to commend the work she has done in this area and also to identify the support she has received from her School in Aarhus. One of the key issues here is that individual members of Council and the Project Leaders within EAAE depend entirely on the support and permission from their Deans, their Rectors, and their Schools to allow them to give the time to fully participate in the work of the Association. We are extremely grateful to Peter Kjaer, the Rector of the School of Architecture at Aarhus who has been hugely supportive in the publication of the news sheet.

### **AG2R Competition**

Emil Popescu from the University of Bucharest was responsible for the organisation of the international competition for Architectural Students. This competition dealt with the subject of designing for elderly people, designing for the third and fourth age. The competition was sponsored by the French Company AG2R and it attracted a very large student entry from all over Europe. It was judged in Paris by a Jury chaired by Mario Botta. It is our intention to publish in detail the submissions of this competition as many interesting areas of design were explored and investigated.

### **Guide to the Schools of Architecture**

Leen Van Duin from the Technical University of Delft has produced a new and updated version of the Guide to the Schools of Architecture of Europe. This is the Association's most successful publication. It is extremely important as it will become clear to Schools who are not in the Guide that they should be and this will allow us to specifically target these Schools in our drive to increase the membership of the Association.

### **The Chania Meeting and Thematic Networks**

Here in Chania we are supported enormously by the work done by Dinos and Maria and the Thematic Sub-networks. This support is endorsed by their School, the Aristotle University of Thessaloniki. This initiative has had the single most important impact on the Chania meetings. It has allowed the meetings to continue, but also it has had an enormous impact on the Schools of Architecture that have been involved. The introduction of the thematic sub-networks has been a huge stabilising influence on the work of the Association and on the Chania meeting in particular. Those of you who may be here in Chania for the first time will have no concept as to the amount of time, effort and work that takes place throughout the year in preparation for this event. Over the past two years meetings have taken place in the Henry Van de Velde Institute in Antwerp as a preparation for the Chania Event. We are extremely grateful to Richard Foque, Head of that School, who has facilitated these meetings, and the members of the Association who attended and participated. I believe that the staff of the Schools of Architecture who have attended the various meetings have benefited enormously from their involvement.

## Velux Prizes

Ebbe Harder has been working with Velux Denmark in organising two specific events, the second competition for New Writings in Architecture for Educators and an international competition for students of Architecture entitled 'The Light of Tomorrow'. These two competitions have been hallmarked by a superb professional organisation and we eagerly await the outcome of their endeavours.

## EAAE/ARCC Conference

The Dublin School of Architecture, at the Dublin Institute of Technology, in June of this year hosted a joint Conference between EAAE and ARCC under the heading 'Between Research and Practice'. The conference was attended by over 100 delegates from both the United States and Europe. A report on that Conference is in the current EAAE News Sheet, and the proceedings are currently being prepared for publication.

The outcome of these projects and those who have worked on them have been the core blood of the Association. We would like to thank those who have been involved and encourage the work to continue. Indeed we would wish to see new projects being identified and developed. Under the heading of new projects, a series of guidelines have been drawn up to inform members on how a project can be introduced to the Association. Broadly speaking a project may be introduced by Council themselves and they may then seek to find a project leader. Alternatively a member of the Association may identify a project and submit it to Council for approval. A series of guidelines have been prepared to identify how the project should be run, how it is financed, how it is reported upon and how ultimately it is finalised, closed down, recorded and archived. Again this is part of the building of the knowledge database.

During the past year I, as President, have had the opportunity to represent the EAAE at a significant number of events. Many of these were particularly valuable in developing the thinking process that helps identify the future of our Association. They have also been important from the point of view of establishing contacts and widening the influence of and the information about the EAAE. Last November I attended the annual conference of our sister organisation in the United States, the ACSA. It was both an interesting and revealing process to observe how a similar organisation to ours carries out its business, deals with its problems and maps out its future. The attendance at this particular event was instigated by Marvin Malecha, the Dean of the School of Design at the North Carolina State University. We thank him for his continued support and interest in the work of EAAE over many years and ensuring that the links across the Atlantic are maintained.

In the Spring I was invited to meet SCHOSA, the Standing Council of Heads of Schools of Architecture of the United Kingdom. They were particularly interested in the work being done within EAAE and how we saw the future of architectural education in Europe. They were specifically curious about the stance being taken by many Schools in 'the post-Bologna environment' and on the Bachelors/Masters issue. I was able to inform them on the extent of the work, the investigation, discussion, debate and knowledge gathering that has been done and continues to be done in this area.

I was also invited to meet the Board of the Architects Council of Europe, the Body representing the professional institutions. Two meetings took place with them throughout

the year, one in Brussels and one in Dublin. I believe that we have a real possibility of exploring areas of mutual interest between that organisation and the EAAE. They have invited us to form with them a joint working party to explore these areas. As I believe that the professions share a responsibility with Schools in the wider area of the Architectural Education, I now seek a mandate from the General Assembly to establish this joint working party with the Architect's Council of Europe. [Approved]

### **New Members**

A number of applications were received for membership of EAAE as follows.

Full membership

- Fachhochschule DESSAU – Germany
- Universitatde da Beira Interior – LAUBL, COVILHA – Portugal
- School of Architecture – MOSKOU – Russia

Associate members

- Ryerson University, TORONTO – Ontario – Canada
- TECHNION – Faculty of Architecture – Israel
- Auburn University – Alabama – USA

Individual Member

- Kevin Mitchell – Sharjah – United Arb Emirates

I seek the General Assembly's approval for these new members. [Approved]

### **The Future**

So what is on the Agenda for the coming year?

Firstly, the Council wishes to expand its membership by the introduction of two new members. The two members proposed have been identified from the large number of submissions and their selection relates closely to the strategic objectives I have already mentioned.

The proposed new members of Council are:

Ramon Sastre from the Escola Technia Superiore Arquitectura del Valles [UPC] Sant Augat del Valles Spain, and

Hilde Heynen from the Catholic University of Leuven, Belgium.

Ramon is an Architect of exceptional technical experience and commitment to architectural education and will extend the influence of the Association to the Iberian Peninsula.

Hilde, whose experience in the areas of academia and international conferences is widely known, will be expected to bring a new level of academic rigour to the work of the association in the areas of Conferences and Peer Reviewed Papers.

I now seek the approval of the General Assembly of these new Council members. [Approved]

This time next year my term of office as President will come to an end and a new President

will take over in my place. Therefore, I now propose to you a new Vice-President and President-elect of EAAE, Per Olaf Fjeld. Per Olaf has been serving as a member of Council for the past number of years and during that time he has brought enormous wisdom and stability to Council's work and great clarity of thought to the strategic issues which are the core of the Council's business. I therefore now seek your approval for Per Olaf Fjeld as Vice-President. [Approved]

Finally, on Council matters I announce the resignation from Council of Stephane Hanrot. Stephane has been working on research and architectural doctorates. His new appointment to Professorship means that he will be unable to devote time to Council in the immediate future. This leaves a position open for a further Council member and the existing nominations will be re-examined with this position in mind. However, do not exclude the possibility of submitting further nominations to the Council, I invite you to consider this.

I wish to thank you, the membership of EAAE, for your enormous support and dedicated work that has been carried out over the last twelve months. The endeavours of the Association during the last year and over the past few years has meant that the EAAE has actually come of age. The platform for the future is well under construction. I look forward to an eventful and fruitful year ahead.

## **Inquiry on Competences for Graduate Architects in Europe**

**For the effectiveness and the validity of this inquiry it would be of great importance if you circulated / forwarded this questionnaire to the other members of teaching staff of your school.**

Dear colleague

The European Network of Heads of Schools of Architecture (ENHSA) is a project initiated by the European Association for Architectural Education (EAAE) in the framework of the Socrates Programme: "Thematic Networks". This initiative aims at helping schools of architecture to better and more effectively integrate in the New European Higher Education Area.

The need for compatibility, comparability and competitiveness of higher education in Europe, as this is suggested by the new political context in Europe, demands reliable and objective information about educational structures and the content of studies, that is the education programmes we offer. We therefore need new tools and approaches in order to be able to describe our curricula as well as to recompose them in the prospect of the reforms suggested by the above context.

Learning outcomes and competences are the most relevant elements in the design, construction and assessment of qualifications ensured by schools of architecture, as they constitute the reference points to be met. By learning outcomes we mean the set of competences including knowledge, understanding and skills that a learner is expected to know/understand/demonstrate after completion of a short or long learning process.

With the following questionnaire we are trying to generate a rank order of learning outcomes and competences that, according to the teachers of European Schools of Architecture, a graduate must fulfill and possess. We are expecting that the outcome of this inquiry will give to schools of architecture a tool which will help them to better articulate their educational objectives as well as their reference points for quality assessment. Competences are described as points of reference for curriculum design and evaluation, and not as straitjackets. They can allow flexibility and autonomy in the construction of curricula. Moreover, they provide a common language for describing what curricula are aiming at.

We kindly ask you to fill this questionnaire and to support the efforts we are making in the framework of the EAAE/ENHSA Socrates Thematic Network. For any additional information and clarification please contact us.

Thank you in advance for your cooperation and contribution.

On behalf of the EAAE Council and the ENHSA Steering Committee  
As. Prof. Dr. Constantin Spiridonidis  
ENHSA Coordinator

**Your School**

University, School, Department: .....

City: .....

Country: .....

Bologna framework implemented in your school (Bachelor/Masters): yes/no

**Your Profile***Qualifications*Architect  Enginner  Urban  Planner  Historian  Sociologist   
Philosopher  Other *Titles*Diploma  MSc  MA  Dr  PhD  Other *Position in the School*Assistant  Lecturer  Assistant Professor  Assoc. Professor  Professor   
Other *Status*Full time  Part time  Permanent  Contractual  Other *Age*<30  31-40  41-50  51-60  >60 *Sex*

Male/Female

**Questionnaire Part 1: General Competences**

Indicate by clicking the appropriate circle for each higher education cycle (Bachelor, Masters Graduate or 4 to 6 years of continuous studies Graduate, Doctorate ), how important it is that a student should have the particular competence on a scale of 1 to 4 according to the following values : 1=None, 2=Weak, 3=Considerable, 4=Strong.

Indicate by ticking the appropriate box after each competence whether in your institution the particular competence is systematically evaluated by the implemented evaluation processes.

1. Ability to work in an interdisciplinary team 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

2. Ability to develop a trans-disciplinary understanding 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

3. Appreciation of the diversity and multicultural quality of contemporary European society

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

4. Ability to identify and work towards targets for personal, academic and career development

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

5. Awareness of and respect for points of view deriving from other national and cultural backgrounds

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

6. Ethical commitment

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

7. Capacity to develop an analytical and critical thinking and understanding

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

8. Capacity to apply knowledge in practice

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

9. Capacity to apply a spirit of synthesis of ideas and forms

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

10. Capacity to generate creatively new ideas and forms

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

11. Capacity to adapt proactively to changing situations

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

12. Capacity to evaluate ideas, proposals, forms

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

13. "Learning to learn" ability 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

14. Decision – making skills 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

15. High level computing skills including the ability to use the Internet critically as a means of communication and a source of information 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

16. Personal and social skills in expression and communication by speaking, writing and sketching 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

17. Ability to receive and respond to a variety of information sources (textual, numerical, verbal and graphical) 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

18. Basic knowledge of all the professional applications of the discipline 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

19. Responsibility for one's own work and ability to be self-critical in relation to that 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

20. Knowledge of languages 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

Other Competences: .....

**Questionnaire Part 2 : Specific Competences related to the profession**1. Ability to create architectural designs that satisfy both aesthetic and technical requirement 

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

2. Adequate knowledge of the history and theories of architecture and related arts, technologies and human sciences

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

3. Awareness of the issues and themes of present day architectural debate

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

4. Ability to recognize and use appropriately architectural theories, concepts, paradigms and principles

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

5. Knowledge of the fine arts as an influence on the quality of architectural design

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

6. Knowledge of contemporary and historical works that have achieved the highest standards in architecture

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

7. Ability to abstract and present key elements and relationships

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

8. Adequate knowledge of urban design, planning and the skills involved in the planning process

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

9. Understanding of the relationship between people and buildings and between buildings and their environments, and of the need to relate buildings and the spaces between them to human needs and scale

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

10. Awareness of the potentials of new technologies

Bachelor Graduate: 1 2 3 4  
 Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4  
 Doctorate: 1 2 3 4

11. Understanding of the profession of architecture and the role of architects in society, in particular in preparing briefs that account for social factors

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

12. Critical awareness of the political and financial motivations behind clients' briefs and building regulations so as to develop an ethical framework for decision making within the built environment

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

13. Critical awareness of the relationship between current developments in architecture and the past

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

14. Understanding of the methods of investigation and preparation of the brief for a design project

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

15. Understanding of the structural design, construction and engineering problems associated with building design

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

16. Adequate knowledge of physical problems and technologies and of the function of buildings so as to provide them with internal conditions of comfort and protection against climate

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

17. Necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

18. Adequate knowledge of the industries, organizations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

19. Ability to work both with a high degree of autonomy and collaboration

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

20. Ability to engage in self-managed and life-long learning (eg working independently, time management and organization skills)

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

21. Awareness of the need for continuous professional development

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

22. Ability to respond creatively and flexibly to changes in the professional environment

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

23. Ability to communicate appropriately to a variety of audiences in oral, written and graphic forms

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

Other Competences: .....

**Part 3 : Specific competences. Research in Architecture**

1. Awareness of the ongoing nature of architectural research and debate

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

2. Critical awareness of the relationship between current architectural discourse and practice and the architecture of the past

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

3. Awareness of the highest standards of achievement in architecture, in design, in built work and in scholarship

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

4. Awareness of the moral and ethical issues of investigation and the need for professional codes of conduct in research (eg. appropriate acknowledgements of contributions, etc.)

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

5. Ability to define research topics which will contribute to knowledge and debate within architecture

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

6. Ability to formulate research questions

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

7. Ability to identify and use paradigms, theories concepts and methods of enquiry appropriate to the discipline and the topic of enquiry

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

8. Ability to identify and use appropriately sources of relevant information and to identify and use relevant retrieval tools (bibliographical sources, archival inventories, etc.)

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

9. Ability to prepare, process, interpret and present data using appropriate qualitative and quantitative techniques

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

10. Ability to work with a high degree of autonomy (eg. Accept responsibility for research project planning)

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

11. Ability to communicate appropriately in written, oral and graphic forms

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

12. Awareness of and ability to use appropriate tools of other human and physical sciences (eg. Literary criticism, art history, philosophy, studies in constructional analysis, etc.)

Bachelor Graduate:	1	2	3	4
Masters Graduate or 4 to 6 years of continuous studies Graduate:	1	2	3	4
Doctorate:	1	2	3	4

13. Ability to use IT and Internet resources (statistical, cartographical methods, database creation, etc.)

Bachelor Graduate: 1 2 3 4

Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4

Doctorate: 1 2 3 4

14. Ability to collect and integrate several lines of evidence to formulate and test hypotheses

Bachelor Graduate: 1 2 3 4

Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4

Doctorate: 1 2 3 4

15. Ability to plan, conduct and report on investigations

Bachelor Graduate: 1 2 3 4

Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4

Doctorate: 1 2 3 4

16. Ability to write in one's own language, using correctly the various types of architectural literature

Bachelor Graduate: 1 2 3 4

Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4

Doctorate: 1 2 3 4

17. Ability to reference sources accurately and appropriately

Bachelor Graduate: 1 2 3 4

Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4

Doctorate: 1 2 3 4

18. Ability to evaluate evidence and draw appropriate conclusions

Bachelor Graduate: 1 2 3 4

Masters Graduate or 4 to 6 years of continuous studies Graduate: 1 2 3 4

Doctorate: 1 2 3 4

Other Competences: .....

## **Questionnaire concernant les compétences sanctionnées par les diplômes d'architecture en Europe**

**Pour l'efficacité et la validité de cette enquête, il est d'une grande importance que vous envoyiez/fassiez circuler ce questionnaire en le transmettant aux autres membres de l'équipe pédagogique de votre établissement.**

Madame, Monsieur,

Le Réseau Européen des Directeurs des Ecoles d'Architecture (ENHSA) est un projet mis en place par l'Association Européenne pour l'Enseignement de l'Architecture (AEEA) dans le cadre du Programme Socrate : « Réseaux Thématiques ». Cette initiative a pour objectif d'aider les écoles d'architecture à s'intégrer de façon plus efficace au nouvel espace européen de l'enseignement supérieur et de la recherche.

La nécessité d'une compatibilité, d'une comparabilité et d'une compétitivité de l'enseignement supérieur européen suggérée par le nouveau contexte politique en Europe demande une information fiable et objective sur les structures de l'enseignement et le contenu des études, sur ce que nos programmes éducatifs offrent précisément. Nous avons donc besoin de nouveaux instruments et de nouvelles approches pour être capables de décrire nos cursus et pour les recomposer dans la perspective des réformes suggérées par le contexte évoqué ci-dessus.

Résultats d'apprentissage et compétences sont les éléments les plus appropriés dans la conception, la construction et l'évaluation des qualifications assurées par les écoles d'architecture, puisqu'ils constituent les points de référence que l'on doit y rencontrer. Par résultats d'apprentissage, nous entendons l'ensemble des compétences, y compris la connaissance, la compréhension et les capacités qu'un apprenant est tenu de connaître/comprendre/montrer après avoir accompli un processus d'apprentissage court ou long.

Y l'aide du questionnaire suivant, nous essayons de faire un classement hiérarchique des résultats et des compétences d'apprentissage qu'en accord avec les professeurs des écoles d'architecture européennes, un diplômé doit avoir accompli et doit posséder. Nous pensons que les résultats de cette enquête fourniront aux écoles d'architecture un instrument qui les aidera à mieux articuler leurs objectifs éducatifs et leurs points de référence pour une évaluation qualitative. Les compétences sont décrites en tant que points de référence pour l'élaboration et l'évaluation du cursus et non en tant que contraintes. Elles peuvent permettre flexibilité et autonomie à la construction des cursus. De plus, elles offrent une langue commune pour la description de leurs objectifs.

Nous vous demandons de bien vouloir remplir le présent questionnaire et de soutenir les efforts que nous faisons dans le cadre de AEEA/ENHSA Socrate Réseau Thématique. Pour tout renseignement complémentaire et tout éclaircissement, n'hésitez pas à nous contacter.

Merci par avance de votre coopération et de votre aide

Pour le conseil de l'AEEA et le comité de coordination ENHSA  
As. Prof. Dr. Constantin Spiridonidis  
Coordinateur ENHSA

### Votre Ecole

Université, Ecole, Département: .....

Ville: .....

Pays: .....

Votre école a-t-elle adopté le système 3-2 Bachelor/Master : Oui/Non

### Votre Profil

#### Qualification

Architecte  Ingénieur  Urbaniste  Historien  Sociologue  Philosophe   
Autre

#### Titres

Diplôme  MSc  MA  Dr  PhD  Autre

#### Position dans l'Ecole

Lecteur  Assistant  Maitre de Conference  Professeur Assoc.  Professeur   
Autre

#### Statut

Temps Complet  Temps Partiel  Permanent  Contractuel  Autre

#### Age

<30  31-40  41-50  51-60  >60

#### Sexe

Masculin  Feminin

### Questionnaire Partie 1: Compétences génériques

Indiquer en cliquant sur le cercle approprié, l'importance de chaque compétence pour le profil des diplômés de chaque niveau d'enseignement supérieur (Licence/Bachelor, Master ou Diplôme d'un cursus de 4 à 6 ans consécutifs, Doctorat). Utilisez l'échelle suivant: 1 = aucune; 2 = faible; 3 = grande, 4 =considérable.

Indiquer en cliquant sur la case correspondante à chaque compétence, si dans votre établissement cette compétence est évaluée systématiquement par les méthodes d'évaluation adoptées.

#### 1. Capacité à travailler au sein d'une équipe interdisciplinaire

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

#### 2. Capacité à développer une compréhension transdisciplinaire

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 3. Appréciation de la diversité multiculturelle de la société européenne contemporaine

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 4. Aptitude à déterminer des objectifs de développement personnel, universitaire ou de carrière

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 5. Prise de conscience et respect de points de vue issus d'autres environnements culturels et nationaux

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 6. Engagement éthique

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 7. Capacité à développer une pensée et une compréhension analytiques et critiques

#### Titulaire de Bachelor

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 8. Capacité à mettre les connaissances en pratique

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 9. Capacité à appliquer un esprit de synthèse des idées et des formes

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 10. Capacité à produire de nouvelles idées et de nouvelles formes de manière créative

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 11. Capacité à s'adapter à des changements de situations

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

### 12. Capacité à évaluer des idées, des propositions et des formes

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

13. Aptitude à "apprendre à apprendre"

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

14. Capacité à prendre des décisions

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

15. Haut niveau de compétences informatiques (utilisation critique de l'Internet comme moyen de communication et source d'information)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

16. Compétences personnelles et sociales d'expression et de communication (oral, écrit, graphique)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

17. Aptitude à recevoir et à répondre à des sources d'information diverses (textuelles, numériques, verbales et graphiques)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

18. Connaissance fondamentale de toutes les applications professionnelles de l'architecture en tant que domaine de connaissance

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

19. Responsabilité dans le travail personnel et aptitude à l'autocritique

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

20. Connaissance des langues

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

Autre: .....

**Questionnaire Partie 2: Compétences spécifiques en relation avec la profession**

1. Aptitude à créer des projets architecturaux satisfaisant à la fois à des exigences esthétiques et techniques

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 2. Connaissance adéquate de l'histoire et des théories de l'architecture, des arts, technologies et sciences humaines en rapport

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 3. Prise de conscience des problèmes et des questions du débat actuel en architecture Titulaire de Bachelor

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 4. Aptitude à reconnaître et à utiliser de manière appropriée théories, concepts, exemples et principes architecturaux

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 5. Connaissance des Beaux Arts comme influence sur la qualité du projet architectural Titulaire de Bachelor

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 6. Connaissance des travaux contemporains et historiques qui ont établi les normes optimales en architecture

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 7. Aptitude à isoler et à présenter éléments et relations clés

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 8. Connaissance adaptée du projet urbain, de la planification et des compétences impliquées dans le processus de la planification urbaine

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 9. Compréhension des rapports homme/bâtiment, bâtiments / environnements et de la nécessité de lier les bâtiments et les espaces publics aux besoins humains et à l'échelle humaine

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

## 10. Prise de conscience des potentiels des nouvelles technologies

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

11. Compréhension de la profession d'architecte et du rôle des architectes dans la société, en particulier dans la préparation de programmes prenant en compte les facteurs sociaux

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

12. Prise de conscience critique des motivations politiques et financières en regard de la demande des clients et du droit de la construction afin de développer un cadre éthique pour la prise de décision dans l'environnement construit

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

13. Prise de conscience critique de la relation existant entre les développements contemporains et passés en architecture

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

14. Compréhension des méthodes d'enquête et de préparation d'un programme de projet

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

15. Compréhension de la structure, de la construction et des problèmes techniques liés au projet d'architecture

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

16. Connaissance appropriée des problèmes physiques, des technologies et du fonctionnement des bâtiments pour le confort intérieur et la protection climatique

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

17. Compétences nécessaires en matière de projet pour répondre aux contraintes imposées par les facteurs coût et droit de la construction

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

18. Connaissance appropriée des industries, organisations, réglementations et procédures impliquées dans la traduction des concepts du projet dans des constructions et des plans intégrés à une planification totale

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

19. Aptitude à travailler à la fois avec une grande autonomie et à collaborer 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

20. Aptitude à s'engager dans l'autogestion et dans l'apprentissage longue durée (ex: travail indépendant, gestion du temps et capacité d'organisation) 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

21. Prise de conscience de la nécessité d'un développement professionnel continu 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

22. Aptitude à répondre d'une manière créative et flexible aux changements dans l'environnement professionnel 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

23. Aptitude à communiquer d'une manière appropriée avec une variété d'audiences dans des formes orales, écrites et graphiques 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

Autre: .....

**Questionnaire Partie 3: Compétences spécifiques en relation avec la recherche en architecture**1. Prise de conscience de la nature permanente de la recherche et du débat 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

2. Prise de position critique de la relation entre le discours architectural actuel et la pratique et l'architecture du passé 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

3. Prise de conscience des standards les plus élevés en architecture, en design, en espace bâti et dans le cadre académique 

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

4. Prise de conscience des problèmes moraux et éthiques de l'enquête et de la nécessité de codes professionnels dans la conduite de la recherche (ex. reconnaissance appropriée des contributions etc.)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

5. Aptitude à définir les thèmes de la recherche qui contribueront à la connaissance et au débat au sein de l'architecture

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

6. Aptitude à formuler des questions de recherche

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

7. Aptitude à identifier et à utiliser des exemples, théories, concepts et méthodes d'enquête appropriés à la discipline et au thème de l'enquête

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

8. Aptitude à identifier et à utiliser de manière appropriée les sources de l'information, à identifier et à utiliser des instruments appropriés de repérage (sources bibliographiques, inventaires d'archives etc)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

9. Aptitude à préparer, développer, interpréter et présenter des termes en utilisant des techniques qualitatives et quantitatives

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

10. Aptitude à travailler avec un degré d'autonomie élevé (ex. accepter la responsabilité en matière de planification du projet de recherche)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

11. Aptitude à communiquer efficacement sous forme écrite, orale et graphique

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

12. Prise de conscience et aptitude à utiliser les instruments appropriés des autres sciences humaines et physiques (ex. critique littéraire, histoire de l'art, philosophie, études sur l'analyse de construction etc.)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

13. Aptitude à utiliser la technologie informatique et les ressources Internet (méthodes statistiques, cartographiques, création de bases de données, etc.)

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

14. Aptitude à recueillir et à intégrer des évidences pour formuler et tester des hypothèses

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

15. Aptitude à projeter, conduire une enquête et à en rendre compte

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

16. Aptitude à écrire dans sa propre langue, en utilisant correctement les diverses formes de la littérature architecturale

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

17. Aptitude à se reporter de manière précise et appropriée à des sources de référence

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

18. Aptitude à évaluer l'évidence et à tirer des conclusions appropriées

Titulaire de Bachelor:	1	2	3	4
Titulaire de Masters ou de diplôme sanctionnant 4 à 6 années d'études continues:	1	2	3	4
Titulaire de Doctorat:	1	2	3	4

Autre: .....

## Questionnaire on Competences of Graduate Architects

Dear Sir / Madame

The European Network of Heads of Schools of Architecture (ENHSA) is a project initiated by the European Association for Architectural Education (EAAE) in the framework of the Socrates Programme: "Thematic Networks". This initiative aims at helping schools of architecture to better and more effectively integrate in the New European Higher Education Area.

With this questionnaire we are trying to investigate the skills and competences that may be important for success in the professional career of a graduate Architect in the domain of your professional activity. It is expected that the outcome of this inquiry will give to the schools of architecture in Europe a tool which will help them to better articulate their educational objectives.

Learning outcomes and competences are the most relevant elements in the design, construction and assessment of qualifications ensured by schools of architecture, as they constitute the reference points to be met. By learning outcomes we mean the set of competences including knowledge, understanding and skills that a learner is expected to have/develop/demonstrate after completion of a process of learning – short or long.

We kindly ask you to fill this questionnaire and to support the efforts we are making in the framework of the EAAE/ENHSA Socrates Thematic Network. For any additional information and clarification please contact us.

On behalf of the EAAE Council and the ENHSA Steering Committee

As. Prof. Dr. Constantin Spiridonidis  
ENHSA Coordinator

**A. Please answer the following questions:**

Click the appropriate box(es) or select from the proposed list

1. Type of the activity of your Company/Practice:

- Architectural Design
- Interior Design
- Object / Industrial Design
- Scenography
- Urban Design
- Urban Planning
- Building Conservation/Restoration
- Building Construction
- Construction Management
- Other  Please specify: .....

2. Number of employees of your Company/Practice: .....

3. Your position in the Company/Practice

- Director
- Line Manager
- Specialised Employee
- Other  Please specify: .....

4. Age

- <30  31-40  41-50  51-60  >60

5. Do you consider that the formal education of architect(s) employee(s) has adequately prepared them to work in your Company/Practice?

- Very much
- Much
- Some
- Little
- Very little

6. Do you prefer your employees to have

- Specialised knowledge on the subject(s) of your Company/Practice
- General multidirectional architectural knowledge

**B. For each of the skills listed below, please estimate:**

the importance of the skill or competence, in your opinion, for work in your Company/  
Practice by clicking the appropriate box;

the level to which each skill or competence is developed by degree programmes at the  
School(s) of Architecture by clicking the appropriate box.

Please use the following scale: 1 = none; 2 = weak; 3 = considerable; 4 = strong.

## 1. Ability to work in an interdisciplinary team

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 2. Ethical commitment

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 3. Capacity to develop an analytical and critical thinking and understanding

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 4. Personal and social skills in expression and communication by speaking, writing and sketching

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 5. Ability to work both with a high degree of autonomy and collaboration

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 6. Ability to develop a trans-disciplinary understanding

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 7. Capacity to apply knowledge in practice

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 8. Capacity to generate creatively new ideas and forms

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 9. Capacity to apply a spirit of analysis and synthesis of ideas and forms

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

## 10. "Learning to learn" ability

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

### 11. Ability to evaluate evidence and draw appropriate conclusions

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 12. Awareness of and respect for points of view deriving from other national and cultural backgrounds

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 13. Ability to receive and respond to a variety of information sources (textual, numerical, verbal and graphical)

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 14. Awareness of the issues and themes of present day architectural debate

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 15. Ability to plan, conduct and report on investigations

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 16. Critical awareness of the political and financial motivations behind clients' briefs and building regulations so as to develop an ethical framework for decision making within the built environment

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 17. Basic knowledge of all the professional applications of the discipline of architecture

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 18. Decision - making and management skills

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 19. Planning and time management skills

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

### 20. Ability to create architectural designs that satisfy both aesthetic and technical requirements

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

21. Necessary design skills to meet building users' requirements within the constraints imposed by cost factors and building regulations

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

22. Understanding of the methods of investigation and preparation of the brief for a design project

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

23. Adequate knowledge of the history and theories of architecture and related arts, technologies and human sciences

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

24. High level computing skills including the ability to use the Internet critically as a means of communication and a source of information

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

25. Knowledge of languages

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

26. Understanding of the structural design, construction and engineering problems associated with building design

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

27. Adequate knowledge of physical problems and technologies and of the function of buildings so as to provide them with internal conditions of comfort and protection against climate

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

28. Awareness of and respect for energy and sustainability management

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

29. Adequate knowledge of urban design, planning and the skills involved in the planning process

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

30. Adequate knowledge skills involved in the conservation and restoration of buildings

Importance: 1 2 3 4  
 Level to which developed by the School of Architecture: 1 2 3 4

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31. Adequate knowledge and skills involved in landscape design

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

32. Adequate knowledge and skills involved in interior design

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

33. Adequate knowledge of the industries, organizations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

34. Ability to identify and use appropriately sources of relevant information and to identify and use relevant retrieval tools (bibliographical sources, archival inventories, etc.)

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

35. Other: .....

Importance: 1 2 3 4

Level to which developed by the School of Architecture: 1 2 3 4

**C. Please rank below the five most important competences listed on the previous pages (section B)**

Please write the number of the item within the box. Mark on the first box the most important, on the second box the second most important and so on.

1. Competence number: .....

2. Competence number: .....

3. Competence number: .....

4. Competence number: .....

5. Competence number: .....

## Questionnaire concernant le niveau des compétences des architectes diplômés

Madame, Monsieur,

Le Réseau Européen des Directeurs des Ecoles d'Architecture (ENHSA) est un projet mis en place par l'Association Européenne pour l'Enseignement de l'Architecture (AEEA) dans le cadre du Programme Socrate : « Réseaux Thématiques ». Cette initiative a pour objectif d'aider les écoles d'architecture à s'intégrer de façon plus efficace au nouvel espace européen de l'enseignement supérieur et de la recherche.

Avec ce questionnaire, nous essayons de rechercher les compétences et les savoir faire qui sont importants pour le succès de la carrière des architectes diplômés dans le domaine de votre activité professionnelle.

Nous pensons que les résultats de cette enquête fourniront aux écoles d'architecture un instrument qui les aidera à mieux articuler leurs objectifs éducatifs.

Résultats d'apprentissage et compétences sont les éléments les plus appropriés dans la conception, la construction et l'évaluation des qualifications assurées par les Ecoles d'Architecture, puisqu'ils constituent les points de référence que l'on doit y rencontrer. Par résultats d'apprentissage nous entendons l'ensemble des compétences, y compris la connaissance, la compréhension et les capacités qu'un apprenant est tenu de connaître/comprendre/montrer après avoir accompli un processus d'apprentissage court ou long.

Nous vous demandons de bien vouloir remplir le présent questionnaire et de soutenir les efforts que nous faisons dans le cadre de AEEA/ ENHSA Socrate Réseau Thématique. Pour tout renseignement complémentaire et tout éclaircissement, n'hésitez pas à nous contacter.

Merci par avance de votre coopération et de votre aide

Pour le conseil de l'AEEA et le comité de coordination ENHSA

As. Prof. Dr. Constantin Spiridonidis

Coordinateur ENHSA

**A. Merci de répondre aux questions suivantes:**

Cliquez sur la case appropriée ou choisissez dans la liste proposée

Pays: .....

Ville: .....

1. Type d'activité de votre société/agence:

Projet architectural

Design intérieur

Design industriel et d'objet

Scénographie

Projet urbain

Urbanisme

Conservation/Restauration de bâtiments

Construction

Management de la construction

Autre  Précisez svp: .....

2. Nombre d'employés dans votre société/agence: .....

3. Votre place dans votre société/agence

Directeur

Responsable de service

Employé qualifié

Autre  Précisez svp: .....

4. Votre age

<30  31-40  41-50  51-60  >60

5. Considérez-vous que la formation des architectes que vous employez est suffisante pour leur permettre de travailler efficacement dans votre société/agence

Tout a fait suffisante

Suffisante

Assez suffisante

Peu suffisante

Très peu suffisante

6. Vous préféreriez que vos employés possèdent:

Une connaissance spécialisée du domaine de votre société/agence

Une connaissance architecturale générale et multidirectionnelle

**B. Pour chaque compétence de la liste suivante, merci d'évaluer:**

L'importance du savoir et des compétences pour travailler dans votre société/agence.  
(Cliquez sur le cercle appropriée);

Le niveau qui est assuré pour chaque compétence et savoir par la formation dans l'école d'architecture. (Cliquez sur le cercle appropriée)

Utilisez l'échelle suivant : 1 = très faible; 2 = faible; 3 = satisfaisant; 4 = élevé.

**1. Capacité à travailler au sein d'une équipe interdisciplinaire**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**2. Engagement éthique**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**3. Capacité à développer une pensée et une compréhension analytiques et critiques**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**4. Compétences personnelles et sociales d'expression et de communication (oral, écrit, graphique)**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**5. Aptitude à travailler avec un degré d'autonomie élevé**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**6. Capacité à développer une compréhension transdisciplinaire**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**7. Capacité à mettre les connaissances en pratique**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**8. Capacité à produire de nouvelles idées et de nouvelles formes de manière créative**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**9. Capacité à appliquer un esprit de synthèse des idées et des formes**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

**10. Aptitude à "apprendre à apprendre"**

Importance: 1 2 3 4

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

## 11. Aptitude à évaluer l'évidence et à tirer des conclusions appropriées

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 12. Prise de conscience et respect de points de vue issus d'autres environnements culturels et nationaux

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 13. Aptitude à recevoir et à répondre à des sources d'information diverses (textuelles, numériques, verbales et graphiques)

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 14. Prise de conscience des problèmes et des questions du débat actuel en architecture

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 15. Aptitude à projeter, conduire une enquête et à en rendre compte

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 16. Prise de conscience critique des motivations politiques et financières en regard de la demande des clients et du droit de la construction afin de développer un cadre éthique pour la prise de décision dans l'environnement construit

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 17. Connaissance fondamentale de toutes les applications professionnelles de l'architecture en tant que domaine de connaissance

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 18. Capacité à prendre des décisions et capacité de management

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 19. Capacité à planifier et à gérer le temps

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

## 20. Aptitude à créer des projets architecturaux satisfaisant à la fois à des exigences esthétiques et techniques

Importance:	1	2	3	4
-------------	---	---	---	---

Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4
--	---	---	---	---

21. Compétences nécessaires en matière de projet pour répondre aux contraintes imposées par les facteurs coût et droit de la construction

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

22. Compréhension des méthodes d'enquête et de préparation d'un programme de projet

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

23. Connaissance adéquate de l'histoire et des théories de l'architecture, des arts, technologies et sciences humaines en rapport

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

24. Haut niveau de compétences informatiques (utilisation critique de l'Internet comme moyen de communication et source d'information)

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

25. Connaissance des langues

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

26. Compréhension de la structure, de la construction et des problèmes techniques liés au projet d'architecture

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

27. Connaissance appropriée des problèmes physiques, des technologies et du fonctionnement des bâtiments pour le confort intérieur et la protection climatique

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

28. Conscience et prise en compte des questions de l'énergie et du développement durable

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

29. Connaissance adaptée du projet urbain, de la planification et des compétences impliquées dans le processus de la planification urbaine

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

30. Connaissance appropriée de la conservation et restauration des bâtiments

Importance: 1 2 3 4  
 Niveau assuré pour chaque compétence par la formation dans l'école d'architecture: 1 2 3 4

## 31. Connaissance appropriée de l'architecture du paysage

Importance:	1	2	3	4
Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4

## 32. Connaissance appropriée de l'architecture intérieure

Importance:	1	2	3	4
Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4

## 33. Connaissance appropriée des industries, organisations, réglementations et procédures impliquées dans la traduction des concepts du projet dans des constructions et des plans intégrés à une planification totale

Importance:	1	2	3	4
Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4

## 34. Aptitude à identifier et à utiliser de manière appropriée les sources de l'information, à identifier et à utiliser des instruments appropriés de repérage (sources bibliographiques, inventaires d'archives etc)

Importance:	1	2	3	4
Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4

## 35. Autre: .....

Importance:	1	2	3	4
Niveau assuré pour chaque compétence par la formation dans l'école d'architecture:	1	2	3	4

**C. Classez les cinq compétences les plus importantes de la liste précédente (section B)**

Inscrire le chiffre dans la case correspondante. Notez la compétence la plus importante dans la première case et ainsi de suit.

1. Compétence numéro: .....
2. Compétence numéro: .....
3. Compétence numéro: .....
4. Compétence numéro: .....
5. Compétence numéro: .....