European University Quality in eLearning

ELEARNING QUALITY IN EUROPEAN UNIVERSITIES: DIFFERENT APPROACHES FOR DIFFERENT PURPOSES

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With the contribution of
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LIST OF ACRONYMS

AAOU	Asian Association Of Open Universities
APERTUS	National Council For Distance Education
BENVIC	Benchmarking Of Virtual Campus
cEVU	Collaborative European Virtual University
CHEA	Council For Higher Education Accreditation
CNED	Centre National d'Enseignement A Distance
DETC	Distance Education And Training Council
DRMs	Digital Rights Management
EADL	European Association Of Distance Learning
EADTU	European Association Of Distance Teaching Universities
ECIU	European Consortium of Innovative Universities
QAA	British Quality Assurance Agency
EFQM	European Foundation for Quality Management
EFQUEL	European Foundation For Quality In Elearning
EHEA	European Higher Education Area
EITSA	Estonian Information Technology Foundation
eLIG	The Elearning Industry Group
ENQA	European Association For Quality Assurance In Higher Education
EQO	European Quality Observatory
ESIB	National Unions Of Students In Europe
EUA	European University Association
EUNITE	European Universities Network for Information technology in Education
EURASHE	European Association of Institutions in Higher Education
HECTIC	Higher Education Consultation In Technologies Of Information And Communication
ICT	Information Communication Technologies
INQAAHE	International Network For Quality Assurance Agencies In Higher Education
IPR	Intellectual Properties rights
IVETTE	Implementation of Virtual Environments in Training and Education
LMS	Learning management system
NADE	Norwegian Association For Distance Education And Flexible Education
NETCAMPUS	Improving Open and Distance Learning in a Network
NETTUNO	Network Per l'Universita Ovunque
NVAO	Nederlands-Vlaamse Accreditatie Organisatie
OULU	University Of Oulu
OUNL	Open Universiteit Nederland
OUUK	The Open University
PD	Professional Development
QAA	British Quality Assurance Agency

QAS	Quality Assurance Systems
QUIS	Quality Interoperability and standards in e-Learning
SEEL	Supporting Excellence In E-Learning
SEEQUEL	Sustainable Environment For The Evaluation Of Quality In E-Learning
Spot-Plus	Students' Perspective On Technology in Teaching and Learning
TQM	Total Quality Management
UNED	Universidad Nacional De Educación A Distancia
UOC	Universitat Oberta De Catalunya
VICTORIOUS	VIrtual Curricula ThrOugh Reliable InterOperating University Systems
VIRTUE	The Virtual University Education

INTRODUCTION

The UNIQUe project aims at enhancing the reform process of European higher education institutions through the creation of an eLearning quality label for university accreditation that certifies and facilitates the improvement of higher education eLearning-related processes and management.

This report represents the first output of the project and collates several approaches, initiatives, experiences and projects, which are devoted to promote, support, assess and /or certify the Quality of teaching and learning processes focused on ICT and eLearning in Higher Education (HE).
The results presented in this report have constituted the basis for the design and definition of the UNIQUe accreditation system.

A quality culture in and for eLearning is emerging fast. Quality assurance is becoming increasingly important as ICT-based learning becomes more and more widespread in universities in Europe. Changes in working practices, rapid advances in technology and the emerging global economy have indeed safeguarded the future of ICT-based learning.

Accreditation and certification is in essence a validation process by which institutions of higher education are evaluated against established standards to ensure a high level of educational quality and to enhance further quality improvement.

The report is structured in different chapters, each of them has a specific focus :

♦ The first chapter illustrates how ICT and eLearning have affected HE and how technologies can play key roles in transforming university purposes and settings. Several projects are introduced in order to make concrete references to experience which, over the last fifteen years, have supported, facilitated and enhanced the innovation processes within Universities.

♦ The second chapter presents an overview of quality approaches and quality projects aiming at promoting and creating the culture of Quality in ICT and eLearning.

♦ Chapter three presents the experiences of "National or Regional government bodies" led quality accreditation. Different Public Authorities have already established quality assurance systems in HE and have developed formal accreditation frameworks for HE institutions and/or programmes.

♦ Chapter four illustrates projects and initiatives in which the HE community organises itself by using peer review / self-assessment approaches (normally without formal accreditation).

♦ Chapter five details initiatives in which an Association/independent third party introduces a quality label.

EXECUTIVE SUMMARY

It is undoubted that ICT can be considered a catalyst for major innovation and ICT plays a key role in transforming Universities. It is also true that today most of European universities are integrating technology in their daily work. Nevertheless, looking at the current situation, ICT based learning is still a rather new phenomenon and that different "visions" of eLearning exist.

At the institutional level, developing and implementing policies to assure quality in open and distance learning is often done under the umbrella of international agencies or associations. For instance, the Asian Association of Open Universities – AAOU – operates the AAOU Quality Assurance Framework which contains nine components and 107 quality criteria. Comprehensive and consistent guidelines for quality assurance in open and distance learning are provided, for instance, also by associations such as the International Council for Open and Distance Learning – ICDE and the International Centre for Distance Learning – ICDDL.

Likewise, the Norwegian Association for Distance Education (NADE) offers institutional quality standards, broken down in four clusters: information and guidance, course development, instruction and organisation.
Some institutional providers may prefer to go down the route of the TQM model or ISO certification.

A major regional quality assurance initiative in Europe is ENQA - the European Association for Quality Assurance in Higher Education. ENQA disseminates information, experiences and good practices in the field of quality assurance in higher education to European QA agencies, public authorities and higher education institutions. In 2005, it published Standards and Guidelines for Quality Assurance in the European Higher Education Area.

Furthermore, some relevant steps have been made in the area of peer review and self-assessment in which HE community organises and commits itself in order to improve the quality of its technology- enhanced teaching and learning processes.

Nevertheless, within Europe, a broadly acceptable Quality Accreditation system in eLearning within HE is absent despite the need to support HE in order to face the challenges presented by the emerging needs associated with the introduction of new technologies.

Various approaches for assuring quality are available but there are still gaps and inconsistencies amongst them.

Different projects and initiatives have been carried out at national and European level each having different points of focus and viewpoints on how to address quality in eLearning in Higher Education.
Some quality approaches and quality assurance systems are specifically targeted at the University sector, others are just adopted or imported from industry to this sector. Some originate from third party independent bodies, others from public institutions. Some initiatives provide structured guidelines and codes of practice for HE, while others are based on self-evaluative experience or peer-review.

An important lesson to draw from the analysis conducted within Unique WP1, was the demonstration that a suitable and effective system of accreditation for quality of eLearning in HE needs to include both a peer-review approach (a traditionally recognised and accepted approach within academia) and one that recognises the principles of quality assurance based on clear, agreed and objective criteria and procedures coupled with independent evaluation.

Furthermore the accreditation system should focus on, innovation, a continuous improvement philosophy, that respects specificity and diversity and involves the Universities themselves as active contributors to the evaluation process.

CHAPTER 1.   ELEARNING IN EUROPEAN UNIVERSITIES

1.1.   UNIVERSITY AND ICT FOR LEARNING

"Information and communication technologies (ITC) are changing the society and the economy, so it cannot be expected that education and training should not be affected.

Through many applications of information and communication technologies that can presently be observed do not substantially change the conventional teaching habits, when technology use is integrated in a broader innovation effort its potential to stimulate, accompany and amplify change is enormous"[1].

This is not to deny the existence of an internal capability to promote and implement innovative processes in the European university, but rather to recognise that most initial inputs do originate outside the university, and are then followed by the initiative of some members or categories of academic staff, by students or by university top management which may take the internal lead, and usually establish inter-university links and alliances."

Technology can play different roles by *substituting, improving or transforming* the University setting.

- *The substitution* of the existing methods and tools. The method in which knowledge is transmitted is based on the traditional paradigm. In the most limited scenario, instead of writing on a blackboard with a piece of chalk, the University professor can present his/her slides by using a computer and a projector. In a broader scenario ICT can be used to allow students to exercise, to improve the communication amongst students and to increase the effectiveness from a logistic and organisational view points but the didactic is not substantially modified and innovation is not fully brought to the University context.

- *The improvement* of the existing didactic. ICT if integrated in the didactic process, can bring elements which ameliorate the learning process of the students. For example by combining conventional face-to-face interactions with virtuality in terms of extending the classroom timetable or the classroom environment (home, computer labs, etc), by introducing elements of self-directed learning as well as virtual experiences with other learners from other institutions and countries. In this respect, not only is it crucial that teachers are 'introduced' to different eLearning paradigms, but also that the HEI makes clear what eLearning models are to be introduced (e.g. virtual classroom, or collaborative eLearning supporting traditional classroom-based teaching, on-the-job continuous vocational training using web-based learning, etc.), what related professional competences need to be developed and what organisational solutions need to be implemented.

- *The Transformation of* the University scenario, by using ICT as a vector for the innovation and change throughout the whole University.

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[1]   C. Dondi, "ICT and Higher Education: state-of-the-art and future perspectives". International Seminar Formation Quality in the Network inside the European Space of Higher Education, Tarragona, September 2005.

Awareness of the need of a new concept of eLearning is emerging at EU level:

♦ "A new vision on ICT for learning is needed at policy, management and grass roots practice level if a new window of opportunity is to be found for ICT to become really interesting to innovators in the learning system. This new vision should put context, community, collaboration, competencies, motivation of learners before computer, cost-effectiveness, contents and connectivity; it should relate more closely eLearning to the lifelong learning agenda and the creation of a European Lifelong Learning Area and to the role Europe can and should play in global, especially higher, education. It should start from the assumption that in the knowledge society some level of use of ICT in learning activities cannot remain the exception, but will become normal practice; and probably create order in the confused "panacea concept" of "blended learning" by distinguishing between innovative and merely substitutive use of ICT in different learning contexts. [2]"

1.2. SOME INITIATIVES FOCUSED ON SUPPORTING UNIVERSITIES IN INTRODUCING ICT

This paragraph reports several projects which have been carried out in order to support Higher Education in adopting, implementing and managing the process of integration and usage of ICT. In its scope, the chapter does not want to be exhaustive of all the existing experiences in Europe, but it aims to provide the reader with general ideas of the typologies of initiatives which have accompanied and enhanced this process over the last fifteen years.

1.2.1 HUMANITIES

HUMANITIES (1994-1999)*,* project was co-funded by the European Commission within the Joint Action Socrates, Leonardo da Vinci and Youth.
The overall goal of HUMANITIES was to contribute to give a European dimension to learning processes by utilising means already available thanks to previous European Programmes. The project objective was to develop and consolidate a structure for virtual mobility through European universities.

In this context, the HUMANITIES project promoted a hybrid model of teaching that included both face-to-face and distance-teaching procedures focused on specific themes of study. Based on a gradual and context-based integration of information and communication technologies in University training/teaching, it applied and assessed distance-learning practice in traditional knowledge resource centres settings whilst analysing methodology, economic significance, educational impact, organisational efficiency and cross-cultural outreach.

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[2] "Policy Paper of the European Open and Distance Learning Liaison Committee" Distance Learning and eLearning in European Policy and practice: The vision and reality" 17 November 2004

The specific objectives of the project were as follows:

♦   to develop Open and Distance Learning (ODL) as a method of providing alternatives to traditional student mobility schemes;

♦   to develop and test models of ODL in traditional university contexts;

♦   to examine and quantify the benefits and role of telematics in university ODL systems;

♦   to apply accepted best practice principles to enhance the models of ODL applied;

♦   to establish connections and synergy between key networks involved in higher education, ODL and university-enterprise collaboration;

♦   to build on opportunities provided by existing ODL products, particularly those resulting from previous European Union Programmes;

♦   to undertake research on a number of unexplored areas of ODL implementation.

Through the "COIMBRA Group", a core of Historic European Universities was involved in the project. The actors were Humanities and Social Sciences faculties, that is the section of these institutions that has been most reluctant to use distance education. These universities accepted to experiment telematics-based open learning and to collaborate in curriculum innovation, in order to build a meaningful and long-standing teaching, research and organisation effort.

The project made use of available technology at that time (ISDN, Satellite, Computer Conferencing Systems, Internet and the WEB) and, when possible, operated with already operational European Networks and products developed in the framework of other European programmes, such as COMETT, ERASMUS; ECTS and DELTA.

1.2.2   RESTRUCTURING THE UNIVERSITIES & NEW TECHNOLOGIES FOR TEACHING AND LEARNING

These CRE projects aimed at establishing the practice of peer review on ICT implementation amongst EU Universities.

The results of the first stage of the CRE project exploring the impact of new information and communication technologies on the university, launched in 1996, were detailed in CRE doc N°1 Restructuring the University Universities and the Challenge of New Technologies. The initial study, based on the experiences of eleven universities in different European countries and supplemented by discussion in the CRE Committee Working Group on Restructuring the University, showed that the use of new technologies by the universities within the sample was extremely varied, but that certain common issues emerged. Three of the most important were:

♦   the lack of clear institutional strategies to provide a framework for the development of new technologies in teaching;

♦   the strong resistance from both academic and administrative staff to the use of technology;

♦ the problems predicting the true costs of such activities, which were often underestimated.

While it was clear that there was a great deal of activity adapting teaching methodologies to incorporate technology, there was also much concern about the direction in which rapid change in technologies would force universities to move, and how universities should respond to the challenges presented.

The second phase of the project began with a survey of some forty universities on their experiences with new technologies in teaching and learning and, in particular, any strategies they had developed in this area. Thus, the project basis was widened. The results of the survey were presented at a Forum at which more than twenty universities were represented, including seven of those involved since 1996, who were able to present developments since their earlier involvement. Finally, expert visits were undertaken to five universities, which permitted more in-depth analysis of some of the themes that had been identified.

In addition, a meeting with the American Council of Education allowed CRE to bring together around twenty heads of European universities and twenty North American presidents to reflect on the communications revolution and its implication for the classroom. This seminar showed that while universities in the United States and Canada were further ahead in their experiences with technology, usually because they were under greater pressure from students, they were equally uncertain as to future scenarios and appropriate strategies for managing the phenomenon.

1.2.3 IVETTE: IMPLEMENTATION OF VIRTUAL ENVIRONMENTS IN TRAINING AND EDUCATION[3]

The Thematic Network IVETTE (Implementation of Virtual Environments in Training and Education) funded by the TSER Programme was implemented in the period October 1998 to October 2000 and concerned itself with the study of the concept of Virtual Learning Environments (VLEs) and the consequences of implementing these new learning environments in conventional (especially face-to-face education) education/training institutions. Embedded in the project's conceptual orientation was that VLEs are above all Learning Environments. The main objectives of the project were to map out the institutional, learning and cross-cultural factors that affect the implementation of virtual learning environments, and propose recommendation to stakeholders on strategies for promoting its implementation. The project contributed to the European discussion on these chief issues and offered background information for policy implications to educational institutions, mainly at the level of higher education.

"Virtual learning environments" were created by organising the learning environment in new ways, based on different technological configurations for learning and communicating between peers and teachers. This project established a thematic network to evaluate educational and training innovations in the current implementation of virtual learning environments.

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[3] The paragraphs related to the description of IVETTE; NETCAMPUS; SETTT Project as well as the Report Virtual Models od European Universities are taken from J. Cullen, and M. Barajas "Report on Service area 5 : University strategy towards the integration of ICT in the teaching and learning processes" Massive Project 2006

IVETTE defined virtual learning as **"**any kind of ICT-based learning arrangement where we find any combination of distance and face-to-face interaction, and where some kind of virtual time and space is present". The study analysed how VLEs were implemented in light of three areas of research: teaching/learning, institutional issues, and cross-cultural dimensions.

The analysis of the cases indicates some of the models being used and trends in the scope of implementation. At the time of the data gathering, all models were not fully developed and did not share identical characteristics; they shared some traits, but some progressed further than others. Four basic models whose main characteristics were present with different emphasis were identified:

- *Non-structural implementation of VLE.* This model was the first step in the process of transformation of higher education institutions. These universities were in a phase characterised by the implementation of innovation at the level of pilot projects that were mostly funded by external bodies, generally by the Government or by the European Union.

- *Parallel Structures alongside 'Traditional' structures.* This model was a step forward in the development of VLEs in institutions; although the institution might not be very advanced in the implementation of VLEs, there was an strategic plan that promotes the integration of online learning in the academic and research arena. The integration of VLE courses into the regular curriculum was the main mode of implementation, and it was not unusual to find VLE used for communication among teachers and learners in both distance and regular courses or for other learning activities such as professional development.

- *Mixed mode structures.* In this model, conventional universities were experimenting with changing their organisation, transforming their structure from single-mode to dual mode institutions. The combination of face-to-face and distance through a virtual campus has increased the capacity of existing universities to supply education and attract new students. It was more feasible and requires less effort to create VLE inside the conventional universities than to create new distance education universities. Within this model, universities created independent structures that could look at both national and international markets.

- *Virtual university models.* This was the case of conventional distance education institutions in process of transformation *towards full online operations.* A typical case might be the UNED, the Spanish National Distance Education University, which offered a virtual campus for an increasing number of courses and students.

1.2.4   HECTIC   (HIGHER   EDUCATION   CONSULTATION   IN TECHNOLOGIES OF INFORMATION AND COMMUNICATION)

The HECTIC project was formulated and presented to the European Commission (SOCRATES action Complementary Measures) as an attempt to bridge the gap between EU policies and university strategies.

A group of university rectors or senior academics associated with the rectors met together with experts in ICT/ODL in Higher Education, officers of relevant offices of the European Commission and the project group in an intensive two-day workshop (realized 16-18 September 2001). The meeting focused on discussing the actual situation with regard to the introduction of ICTs in universities, and how far this has proceeded compared with some years ago; the developments in university tasks and performance which the participants expect to be needed in the coming 5-10 years with respect to the recently established European policy objectives; whether universities would be able to manage such change; and what is lacking to achieve change; the workshop would then be asked how to deal with the challenges defined and how the European Union and National authorities could assist in facilitating universities to respond.

These discussions resulted in conclusions and recommendations, which were circulated, to a wider group of 150-200 university leaders and ICT/ODL experts to check the validity of the work in the small group of some 40-workshop participants. After this check, the report was revised, published and presented to the European Commission and to the European universities.

The conclusion followed that most European universities were still far from having implemented the use of ICTs in their teaching and learning and other main processes, and this certainly if strategic issues like considering the pedagogic opportunities and effects of the use of ICTs are taken into account. These would have enabled universities to cater for new student populations including adult learners in addition to better serving the usual ones. Strategic decisions included setting of priorities and will need strategy implementation usually of a longer duration than the terms of office of rectors. On the other hand they would position the university in its local, regional, national and international context which fitted the strengths and values of the university in its market niche.

1.2.5   NETCAMPUS (IMPROVING OPEN AND DISTANCE LEARNING IN A NETWORK)

The project NetCampus (Socrates Minerva project, that ran for two years between 2000 and 2003) aimed at identifying a comprehensive list of all the critical factors of networked e-learning. The general goal was to improve the awareness and understanding of the potential benefits of networking between universities through ICT as well as the critical factors for successful implementation. The project also wanted to identify and develop solutions for both practical and attitudinal obstacles that are characteristic of education in a network environment.

The project surveyed the most relevant networks, determining the key factors of networked e-learning: the use of ICT and ODL for the internationalisation of learning programmes, and inter-university networking in the production of learning materials as well as in the provision of courses and curricula. A critical analysis provided an inventory of the obstacles, prejudices and practical problems that obstruct implementation of ICT-based ODL in a networked environment of universities, as well as problem solving strategies, working solutions and good practices in the field.

1.2.6   SETTT (STRATEGY FOR EDUCATION TECHNOLOGIES AND TRAINING FOR TEACHERS)

SETTT project (approved within the framework of Socrates- Minerva ODL 2000-2002) focused on the implementation of virtual learning environments in the strategic planning of Universities. An objective of the study was to give assistance to the institutions, to give them guidelines on how to integrate new educational technologies in their current practice.

There was a strong imperative within educational institutions to better harness the benefits that were offered by technology in the educational process. The study looked at the current situation vis-à-vis technology in educational institutions from a critical viewpoint that seeks to understand why technology, despite strong advocacy, has failed to meet expectations.

They concluded that an institution must be prepared to undergo some profound changes in pursuit of this elusive goal; otherwise, technology will swallow up vast sums of money and still deliver no useful return if it is operating in an inappropriate environment.
For SETTT, the integration of new technologies would enable the university to position itself in the market more successfully not only at the level of undergraduate education but also in the field of lifelong learning. Moreover, the abolition of distance would also allow for the development of centres of excellence accessible to a European environment and not limited to a national or even regional level.

For the SETT project, the Virtual Learning Environment was a framework that would incrementally integrate all of the academic businesses of the institution into a coherent whole through the use of ICT. The system, an overarching structure that was built around existing structures to permit maximum flexibility, must ultimately deliver a significant improvement in the manner in which the institution conducts its business. When the overall cost of isolated initiatives taken in the same university were added up, it was often the case that a very large total investment in education technologies has already been made by the institution without a clear and coherent framework.

1.2.7   REPORT VIRTUAL MODELS OF EUROPEAN UNIVERSITIES

In the report "Studies in the context of the E-learning Initiative: Virtual Models of European Universities"[4], a key concern was how virtual mobility is being supported in European universities through ICT integration and e-learning.

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[4]   PLS RAmboll (2004). Studies in the context of the E-learning Initiative: Virtual Models of European Universities (Lot1). Draft Final Report to the European Commission, DG Education and Culture. Available at http://elearningeuropa.info (03-03-2005)

The study found that the majority of universities face major challenges in promoting ICT integration. ICT strategy was very important and those universities that have an ICT strategy were significantly ahead in integration of ICT in administration and organisation and networking.

Four key obstacles to effective ICT integration into European universities were identified:

♦ Absence of a coherent and comprehensive management approach to ICT integration and a resistance to change;

♦ Lack of knowledge ;

♦ Lack of high-quality materials;

♦ Tendency to follow US trends of mass production of materials and industrialisation of processes.

The study showed that about half of the European universities surveyed were cooperating in their own countries with national networks, participation between universities, and project cooperation. It appeared that partnerships might be a precondition for development of ICT, but there were difficulties. Partnerships between public and private entities were rare. Transnational consortia existed, and the trend was increasing, but they were not widespread. One problem is the inflexibility of national systems.

Integration of ICT and e-learning was recognised as politically important in the EU, but government influence on universities varies widely throughout Europe. Interest at the central level was an important driver for ICT integration. For instance, national virtual universities existed, but the tendency was to support existing networks or create smaller ones. The key integration drivers identified by the study were:

♦ Internationalisation and globalisation of education;

♦ Student demand;

♦ Interest in increasing the quality of education through ICT.

A EU initiative was recognised by Netcapus as needed to develop materials, to set standards, to regulate intellectual property rights and payment systems, to help make partnerships in and between countries, to establish centres for excellence, and to develop a business model.

At the national level, integration of ICT should become a key priority with national and regional institutions making a commitment to ITC and the development of networks. There must be increased national flexibility with a commitment to support common standards of quality and assessment and to develop national and international metadata standards. A key challenge that required cooperation and support of standards was interoperability of ICT systems. Some EU countries had a national strategies, but others did not. The study saw ICT integration as vital to student mobility in the EU, but in general mobility was not seen yet to be a priority. ICT integration and e-learning were important for regional development in large countries and countries with dispersed populations.

At the university level, there should be development of an ICT strategy, a holistic view that fits the individual university—there can be no single model—and a focus on integrating ICT. An ICT strategy is an indicator of ICT integration. The necessary components were involvement of management, dissemination of good practices, an ICT organisation, a core group of enthusiasts, incentives, quality assurance and assessment, high quality materials, and metadata standards including trans-national initiatives leading to establishment of EU standards. Some saw the integration of ICT with the rest of the university as an important goal for the future, but not much has been done. EU universities were moving at different rates in ICT integration and, so far, it is mainly used to support traditional ways of teaching. Lack of support from management, lack of incentives and financial problems were big obstacles.

Current organisational structures impede ICT integration, despite a demonstrated need for effective ICT units and support structures to drive integration of ICT and e-learning. This study found that the lack of common technical standards is not widely seen throughout Europe as a problem, but experts say that many underestimate its importance. The Finnish Virtual University sees it as a priority and Germany and Portugal are working on it—it appears that development of common technical standards is in its early stages and will be increasingly important.

Three models of cooperation were identified: national cooperation between universities, transnational universities, and cooperation and partnership with business. Cooperation between universities in different EU countries does not appear at the moment to be as interesting as cooperation between universities in the same country, but it may be a priority for the future. There is not much encouragement for the business model, largely because of universities' reluctance to have business partners; however, there could be a movement toward a limited role of business in project-based and consortium relationships.
The study concludes that new mechanisms are necessary in order to meet the goals of e-Europe 2005 and international competition. ICT integration is a new challenge—and a tool to meet challenges—that is developing rapidly.

The study (in 2004) divided EU universities into four groups regarding ICT integration and e-learning: front-runners, cooperating universities, self-sufficient universities, and sceptical universities.
The front-runner group, consisting of 16% of EU universities of all sizes, was well ahead in ICT integration. Universities in this group were mostly funded by the universities themselves, indicating a high level of focus and priority at management level. Three-fourths of them had an explicit ICT strategy; positive attitudes toward ICT in management, staff, and student body; and significant involvement in strategic cooperation with domestic and foreign universities and other entities, such as private companies. They seemed likely to increase their pace and lead in the EU in the coming years. Most plan to extend their efforts to make partnerships with national and foreign universities as well as other private and public entities.

The second group, cooperating universities, consisting of 33% of EU universities, was well along in its ICT development process, especially in the organisational setting. These universities were advanced in integrating ICT into their campus-based teaching and were involved in strategic operations with both domestic and foreign universities and other entities.

They tended to have a general positive attitude toward ICT and were mostly a combination of government and self-financed. Their relatively low level of priority in development of ICT indicates that they would not catch up to the front-runners in the near future. They were more hesitant to have private partners, but they indicate a trend to continue cooperating with national and international universities, and aim to increase their technical support in the near future.

Group three, the self-sufficient universities, 36% of EU universities, were similar to group two in ICT integration in organisational and educational settings, and had more scepticism toward ICT, despite a generally positive attitude. They were less involved than group two in cooperating with other universities and put less emphasis on EU initiatives. 28% of this group were large universities with a trend toward internal consolidation of ICT.

Group four, 15% of EU universities, was way behind the others, only 13% having any formal ICT strategy. Moreover, they did not have any plans to catch up in ICT development, so despite some interest, progress was bound to be slow.

1.2.8   EUNITE   (EUROPEAN   UNIVERSITIES   NETWORK   FOR INFORMATION TECHNOLOGY IN EDUCATION)

The project focused on the creation of an EU University network to provide a European virtual campus); the alliance aimed at:

♦   implementation of information and communications technologies (ICT) in teaching and learning in higher education;

♦   creating a cooperative network of universities ;

♦   creating a European Virtual Campus.

In achieving these goals EUNITE wanted to develop the following opportunities for co-operation:

♦   the innovation potential of ICT for on-campus higher education;

♦   new ways for open and distance learning;

♦   the internationalisation of learning programmes;

♦   enhanced inter-university networking in the provision of courses and;

♦   programmes/curricula, and the production of learning materials.

A very important aspect of the EUNITE strategic alliance was the opportunity for participating universities to make use of each other´s courses and course material, specifically through distance learning. This was the reason why the distributed virtual and multi-campus university – the European Virtual Campus – might be regarded as the main endeavour of EUNITE.

In the EUNITE Memorandum of Understanding, three aims of the European Virtual Campus were defined:

♦   exchange of courses;

♦   sharing of joint courses;

♦   joint development of programmes and courses.

1.2.9   cEVU (THE COLLABORATIVE EUROPEAN VIRTUAL UNIVERSITY)

The proposal originated from the collaboration of 5 international university networks:

♦   EuroPACE;

♦   EUNITE (European Universities Network for IT in Education);

♦   ECIU (European Consortium of Innovative Universiteis);

♦   Coimbra Group;

♦   EUA (European University Association, merger between CRE and Confederation of EU Rectors' Conferences);

♦   One company was involved for services support as well: EPYC, spin off company of EuroPACE, KU Leuven and Gemma Frisius Fund.

This project Socrates, (EDU-ELEARN 2001-2003) positioned itself in the ongoing evolution in Europe, implementing ICT in education as a strategic issue for future university development. It wanted more precisely to contribute to the development of a EUROPEAN virtual UNIVERSITY (EvU), providing building blocks for extension of the idea of a EvU gateway (Sevilla meeting) into a fully functional collaborative environment.

The networks proposed to collaborate within the following three primary areas of activity:

1.   the design of joint working practices, models and policies for distance and online education;

2.   the development of teaching and learning services, building of the technical infrastructure for a cEVU;

3.   the development for validation of new innovative online environments and materials (pilots).

The main objectives were the development of validated models and ideas for a European virtual university, based on regional and transnational collaboration between existing European universities, as part of their mainstream education in all subjects areas and levels, and founded in the use of innovative online pedagogy.

1.2.10 VICTORIOUS (VIRTUAL CURRICULA THROUGH RELIABLE INTEROPERATING UNIVERSITY SYSTEMS)

A large project under the EC eLearning Programme (2005- February 2007), VICTORIOUS was an in-depth analysis consisting of feasibility tests in three different areas that are key to opening the door to large-scale implementation of virtual mobility: Quality, Interoperability/Open Standards, and Digital Repositories and Resources. However, as ICT technologies are changing rapidly, any approach needs some degree of future-proofing by being viewed in terms of possible technology developments likely to occur in the next few years.

Academic coordination was from Edinburgh University, with University partners in Bristol, Turku, Tartu, Siena, Pavia, Granada, Leuven, Groningen and Brussels.

1.2.11 VIRTUE (THE VIRTUAL UNIVERSITY EDUCATION)

The VIRTUE project was an ambitious four-year collaboration involving the Universities of Bergen, Göteborg and Maryland. The project was broadly based around two themes: the development of educational programs in the area of distance learning using state-of-the-art technology, and the promotion of Marine Science emphasising global environment, sustainability and use of ocean resources. The global issues of declining resources and the growing needed for bioremedial solutions to pollution underline the value of such a collaborations in order to address strong and effective international education and research programs.

1.2.12 SPOT-PLUS (STUDENTS' PERSPECTIVE ON TECHNOLOGY IN TEACHING AND LEARNING)

This project (SOCRATES - Minerva Programme 2001-2003) aimed at exploring, conceptualising and developing university students' perspectives with regard to a targeted use of ICT for educational purposes.
In particular, four issues were investigated, which represent potential motivations on the students' side and influence the value of higher education to their eyes:

♦ ICT as a means to develop a number of "transversal skills", such as social, communication and organisational skills, which are fundamental to live and work in the Information Society. The critical use of ICT integrated with traditional classroom-based lectures would allow students to mature their key competencies and transversal skills, increasing their employability and savoir-être-related skills.

♦ ICT as a tool to develop a collaborative approach to learning and to stimulate a more autonomous, learner-centred and democratic way of learning. By increasing the degree of familiarity with technological devices allowing remote communication and distance learning, students were introduced to a complex scenario, in which they are part of a learning community and experience self-managed learning processes.

♦ ICT as a tool to reduce barriers of access to higher education for those segments of student population that were less favoured in social, economic, organisational or physical terms.

♦ ICT as a tool to add an international component to the study experience of most European students, which prepared, followed and complemented the physical mobility of European students across national borders.

The project activities helped to assess the added value brought about by the use of ICT for didactical purposes in terms of collaborative learning methodologies, access for less favoured categories, effective development of students' transversal skills, and enhancement of the outcomes stemming from physical mobility experiences.

1.2.13   NINEVEH

Interactive eLearning Knowledge base, launching new information services to provide higher education institutions with up-to-date, problem-oriented and reliable information that should help them set up appropriate strategies to take up the challenge of ICT.
The project focused on developing a repository of documents and best practice ICT cases aimed at supporting university decision-makers in the process of evaluating and assessing the use of ICTs in their establishments. This project was designed to allow university administrators to compare strategies, assess the impact of ICTs and take decisions. One can easily extract, amongst other things, full documents, synthesised documents, details of contact persons and a link to other relevant sources from a Web-based interactive database. All contents were indexed with keywords from a thesaurus and the interface is regularly improved. The organisations involved in the project were: Politecnico di Torino, European University Association, Instituto Superiore Mario Boella.

1.2.14   TRENDS V: UNIVERSITIES SHAPING THE EUROPEAN HIGHER EDUCATION AREAS

"Trends V[5] is perhaps the most ambitious project yet completed by EUA (European University Association). The report "Trends V: Universities shaping the European Higher Education Area" provides the most comprehensive view available of the state of European higher education - as seen by higher education institutions themselves. More than 900 European higher education institutions contributed to this report, either by responding to a wide-ranging questionnaire, or by hosting visits of research teams, or through providing input in other meetings. The report shows the progress made by Europe's universities in implementing the Bologna reforms, and outlines the main challenges ahead. It is thus a significant publication for all those concerned with European higher education, whether universities and students, or governments, business and industry, or other stakeholders.

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[5]   This part is taken from D.Crosier, L. Purser & H. .Smidt ""Trends V: Universities shaping the European Higher Education Area" , EUA report, Socrates Programme.

Trends V is also the European universities' report to the Conference of Ministers of Education meeting in London on 17/18 May 2007 to discuss the culmination of the Bologna process by 2010. It thus mirrors issues addressed by the stocktaking exercise of the Bologna governments - degree structures, Bologna tools, quality and recognition. In addition Trends V also examines the response of higher education to lifelong learning, pays attention to the services in place to support students, and looks at the particular challenges being faced in the countries that are recent entrants to the Bologna process.

As the 2010 deadline set for the realisation of the European Higher Education Area approaches, the report demonstrates that there has been extraordinary change in European higher education, and that institutions are engaging seriously with the implementation of these reforms. Yet the report also points out that the cultural impact of the Bologna process has often been under-estimated, that there remains much work to be done throughout society, and that the European Higher Education Area will continue to be "work in progress" well beyond 2010. (….)The focus on quality in the Bologna process has certainly raised awareness within higher education institutions of the potential benefits and challenges of effective quality assurance and enhancement activities. More constructive discussion between institutions, quality assurance agencies, stakeholders and public authorities appears to be taking place, and the involvement of students in quality assurance activities also seems to be gaining ground. Indeed in some parts of Europe, quality assurance seems to be replacing degree structure reform as the main topic of interest in the Bologna process."

The results of the questionnaire (based on the criteria set out in the European Standards and Guidelines for Quality Assurance (ESG) adopted by Ministers in Bergen) demonstrate that much work has been done to develop internal quality processes in institutions; student services, nonetheless, being one area that is still not widely evaluated. However, relatively few institutions seem to take a holistic approach to quality improvement. In this respect Trends V confirms the findings of Trends IV and the EUA quality culture project, that extensive internal quality processes are correlated with a higher degree of institutional autonomy.

External quality assurance systems also need to demonstrate that they actually produce an improvement in quality. Considerable concern still remains about the increasing bureaucratic burden on institutions. Meanwhile institutions need to continue to embed a responsible and responsive quality culture as a means of enhancing creativity and innovation in fulfilling their missions. "

1.3. DO UNIVERSITIES NEED SUPPORT IN THE INTEGRATION OF ICT?

The evolution of higher education towards full integration if ICT will inevitably mean significant organisational re-engineering.

"There is sufficient convergence among researchers and practitioners in the identification of a few main dimensions which are embedded in the 'university-as-complex-organisation' concept:

The VISION AND THE VALUES: Higher Education Institutions - HEIs envision a better, more informed society by supporting the transmission of a common culture and of common values based on the enhancement of equal access opportunities to learning, intellectual and ethical understanding.

The MISSION: HEIs generally strive to contribute to the development and growth of learners as individuals and citizens, providing them with the tools (methodologies, contents, services) to help them progress in intellectual and ethical domains (hence helping them cope with needs related to employability and self-fulfilment in society) thus providing a multiform public service to society.

The STRATEGIC GOALS: HEIs, in pursuing the development of their overall strategy, generally strive to meet the changing educational needs of individuals, employers and society, constantly working to reach excellence in education, research and to enhance their reputation and effectiveness.

The HEI Core Operations: these comprise all those activities set forth in order to achieve the strategic goals; the core operations relate to teaching and comprise the whole set of services and activities which make teaching possible thus substantiating the role of HEIs. In this respect, any university 'core business' is made of teaching/knowledge transfer, research, and of the overall direction of the support services which underpin teaching and research."

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[6] C. Dondi, The introduction of VLE in a conventional university contexts: an institutional perspective, in: Barajas, M. (Ed., 2003): Virtual Learnng Environments in Higher Education: A European View. Barcelona, Publicacions de la Universitat de Barcelona.

1.4. THE ELEARNING TERRITORIES: EXTENSION OF LEARNING CONTEXTS AND DIVERSIFICATION OF THE PURPOSES

For analysing the advantages of supporting the introduction of ICT in Universities, it can be useful to refer to Helios concepts of eLearning territories.

[7]The Helios consortium[8] has attempted to escape over-simplistic views of e-Learning differentiation by developing the so-called map of e-Learning Territories. Some of the e-Learning territories are already in the consolidation phase, while others are currently emerging. Some are clustered according to their purpose, some other according to the education/ training sector in which they are mainly observable, other can be considered "transversal". All of them imply different visions and perceptions of e-Learning, sometimes with rather permeable boundaries, but also with clear "identity" elements that provide analytical ground for differentiation.

All the emerging and consolidated territories of e-Learning can be represented graphically according to their position in a continuum ranging from **formal learning** to **informal** and encompassing also **non formal learning**[9].

Some of the territories reflect the traditional articulation of learning systems into sectors and their physiognomy is influenced, but not "turned upside down" by e-Learning.

Another discriminating *cleavage* which can be useful for mapping e-Learning territories is the distinction between "*intra-muros*" embodying the transition to a virtual environment of a group established in presence, and "*extended learning context*", representing a diversification of learning contexts, settings and organisations involved.

The graph reported in the following page presents the Territory identified in Helios project. (More information are available at: www.education-observatories.net/helios).

Looking at the graph, it appears clear that the HE sector is active and is moving towards different territories thanks to the usage and the coherent adoption of ICT and eLearning . In particular, we mean:

♦ ICT for eLearning purposes within tertiary education: it is the traditional territory of University . Use of ICT for learning in universities, colleges etc., which may lead to an academic degree, and in research centres. The applications of e-Learning can take several forms, ranging from lectures placed on line by a single teacher, to the dual mode or mixed mode (institutions offering programmes for both campus-based full-time students and off-campus part-time students), to the provision of degrees entirely on line. Even students or the faculty/teachers or even the university or region/country can lead initiatives

♦ ICT for virtual mobility of the learners: Virtual mobility is considered an instrument for internationalization of learning and working, further contributing to the

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[7] The Helios consortium, "The HELIOS project: redefining the eLearning territories" edited by Claudio Del Rio, Bologna, 2007

[8] HELIOS consortium, (2005) Evolving e-learning The Helios yearly report 2005-2006 http://www.education-observatories.net/helios/reports/

[9] According to the European Commission; "**Formal learning** takes place in education and training institutions, leading to recognised diplomas and qualifications. **Non-formal learning** takes place alongside the mainstream systems of education and training and does not typically lead to formalised certificates. Non-formal learning may be provided in the workplace and through the activities of civil society organisations and groups (such as in youth organisations, trades unions and political parties). It can also be provided through organisations or services that have been set up to complement formal systems (such as arts, music and sports classes or private tutoring to prepare for examinations). **Informal learning** is a natural accompaniment to everyday life. Unlike formal and nonformal learning, informal learning is not necessarily intentional learning, and so may well not be recognised even by individuals themselves as contributing to their knowledge and skills". European Commission; (2000) *A memorandum on lifelong learning*, Bruxelles. See also Cedefop, Terminology of vocational training policy – A multilingual Glossary for an enlarged Europe , (2004)

integration of the European area of HE. By means of ICT, a majority of University students maybe put in the condition to make an experience of internationally studying and learn in an international network of Universities.

♦ Training of teachers and trainers: (TT) on (and through) eLearning. University has always played a primary role in TT. In the foreseeable future teachers and trainers will make even more use of ICT for professional activities including lesson planning and preparation of didactic materials, recording learning progress of the students and other administrative tasks, as well as their own professional development and continuing education.

♦ Virtual professional networks: A professionally oriented virtual community is geared towards professionals and/or facilitates the dialogue on professional issues. Professionals participate in this type of communities, in order to contact each other and exchange information with people outside their own team or organization who require similar information to carry out their own (professional) duties. Universities can provide the framework in which experts and professionals meet, share and learn together.

♦ Individual development: More and more, individuals feel the need to learn through their life and improve their professional and personal life-style. University can provide through online resources and the services the framework for supporting the learning path of individuals.

♦ eLearning at workplace: In general, e-Learning may take the form of structured training programmes fully on-line or blended schemes (complemented with seminar/classroom based training), e-Learning chunks on demand/on the job.

♦ Evolved distance education: According to its original definition, distance education takes place when a teacher and his/her student(s) are separated by physical distance, whereby technology means, often in concert with face-to-face communication, is used to bridge this gap. Distance education programs can provide adults with a second chance at a college education, reach those disadvantaged by limited time, distance or physical disability, and update the knowledge base of workers in on-the-job training schemes
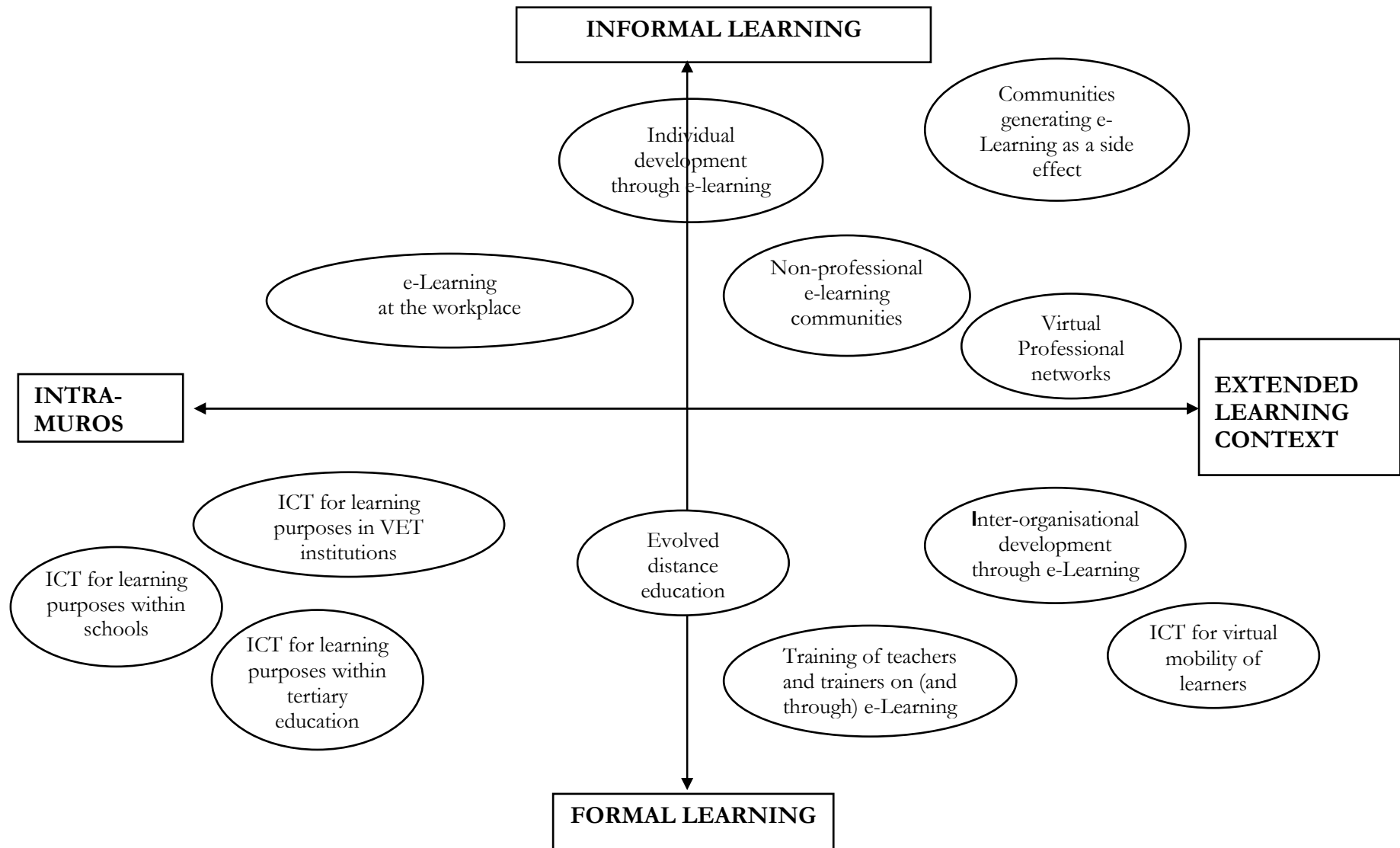
Figure 2: HELIOS Map of e-Learning Territories

1.5. THE NEED FOR A NEW VISION OF ELEARNING FOR HIGHER EDUCATION [10]

The "new vision" of eLearning, based on educational aims and priorities, collaboration and community building, integration and partnership, with a strong innovation focus, may probably result more convincing. In Bergen the following elements were identified to build the "Bologna process" vision of eLearning:

♦ the use of ICT facilitates dialogue and communication among students, and between teachers and students; it actually may overcome the barriers to the dialogue that overcrowded university environments always present;

♦ eLearning provides an "extended learning context" (more resources, more fellow-students, more teachers) to all students, but especially to those who live in peripheral areas and do not benefit of the cultural richness of a prestigious research university with international reputation;

♦ eLearning brings some elements of flexibility in time and place, individualisation, and "ownership" of learning that encourage students to take an active role in managing their learning path;

♦ eLearning may support international virtual mobility, international partnership among universities -within and beyond Europe-, make possible international study experience for all European students, make the right of "choice of study location" a more plausible reality and help to build joint degrees as recommended in the Bologna Process papers;

♦ eLearning brings investment logics into the delivery of higher education, that may capitalise existing knowledge and know-how beyond the availability of individual teachers and researchers; the impact is not only economic, but also organisational and cultural, contributing to reduce the well known hyper-individualisation of many academics and the "not-invented-here" syndrome. Documenting learning processes and contents in a way corresponding to knowledge society practice cannot be bad for higher education;

♦ by encouraging the "ownership" of learning by students, eLearning may accompany the integration of formal, non-formal and informal learning results and provide tools (such as ePortfolio) to represent the individual identity as a lifelong learner;

♦ if eLearning is based on problem-solving, collaboration with other learners and other active learning approaches, it may match with on-the-job seminars and training courses, so representing a strategic resource for universities activities in this domain;

♦ eLearning is almost never used alone, so any fear of "exaggeration" on the isolated use of ICT should be removed: the panacea concept of blended learning is dominating the scene of good practice collection; every institution, every learning initiative may find an appropriate combination of eLearning, classroom sessions and work-based learning activities;

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[10] C. Dondi, "ICT and Higher Education: state-of-the-art and future perspectives". International Seminar Formation Quality in the Network inside the European Space of Higher Education, Tarragona, September 2005.

♦   if eLearning is based on communication, exchange, collaboration rather than individual study, it helps the development not-only of ICT basic skills, but a full range of social and communication skills that are highly contributing to the employability of students and adaptability of employees;

♦   eLearning, as a structured process, requires certain quality standards and procedures; if it cannot generate the excellence of the best face-to-face learning experiences, it can certainly avoid the worst experiences that everyone who has gone through higher education remembers;

♦   eLearning –as distance learning- may solve several problems of access from remote locations and need for quick distribution of learning contents (e.g. how to face the SARS epidemy of 2003), but may have –differently from traditional distance education- a much more open approach to contents and collaborations thanks to communication technology."

1.6.   MAIN CRITICAL AREAS FOR THE INTRODUCTION OF ICT AND ELEARNING IN EU HIGHER EDUCATION: THE MASSIVE CONTRIBUTION TO THE ANALYSIS

The adoption of eLearning strategies by "traditional" Universities does not only need to integrate pedagogic or technologic approaches onto their strategies but to provide a set of support services that will facilitate their integration into the University provision.
MASSIVE (Modelling Advice and Support Services to Integrate the Virtual Component in Higher Education: www.massive-project.org) is an EU funded project under the eLearning initiative in the 2004 call.[11] The aim of MASSIVE was to design a model of mutual support services for European traditional Universities to successfully implement the virtual component of teaching, focusing on the following specific objectives:

♦   To define the conceptual model of virtualisation;

♦   To identify and classify good practices in the organisation of support services to the University community regarding University virtual components;

♦   To explore and compare the elements for transferability according to a mutual support non-commercial model;

♦   To validate the approaches to develop the support services;

♦   To guarantee the wide dissemination of the practices and the use of the model.

Six service areas have been identified as particularly critical and needed in the EU higher education institutions:

♦   University Strategies towards the integration of ICT in the Teaching/learning practice

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[11]   Led by the University of Granada, the partners of MASSIVE are: FIM-new learning, Tavistock Institute, Scienter, University of Barcelona, Budapesti Mûszaki és Gazdaságtudományi Egyetem, School of Education - University of Edinburgh, University of Bergen, Spanish Digital Society of Authors and Publishers and Scienter España. For more information: http://www.massive-project.org

♦   Evolution of University Libraries

♦   Management of IPR issues

♦   Support to Teaching staff

♦   Support to Students

♦   Design of on line courses/ Virtualisation of contents

Within the Massive project a desk research was conducted on the 6 main areas and a synthesis of the results is illustrated in the following paragraphs.

1.6.1   UNIVERSITY STRATEGIES TOWARDS THE INTEGRATION OF ICT IN THE TEACHING/LEARNING PRACTICE

The main conclusions from the University strategy review activity were as follows:

♦   The 'virtual campus' in Europe is still in its infancy. Higher education establishments are undergoing rapid change and the impact of new technologies on the teaching and learning process is uneven and highly differentiated. Universities and other higher education establishments are on different 'points' of a 'virtualisation spectrum'.

♦   'Technological' innovation is part of a broader dynamic – the re-structuring of the higher education enterprise in general, based on 'performativity' and a consumer focus; a shift to 'managed learning environments' and more investment in assessment and outcomes.

♦   The evolution of higher education towards virtualisation will inevitably mean significant organisational re-engineering. An 'audit' of both the organisational as well as the technological capacity of the higher education establishment will be required in order to develop an effective service model.

♦   The service model implies developing a benchmarking system. This would need to incorporate three elements (and associated sets of indicators): a *structural* element – based on 'enablers'; a *practice* element – based on work; and, a *performance* element – based on outcomes and impacts.

♦   Effective service models require the acquisition of specific 'e-learning' competences: at the level of teaching and support staff, at the level of consumers of learning services, and at the level of the organisation itself.

♦   The development of appropriate pedagogic models and approaches capable of maximising the opportunities associated with new technologies, and the development of suitable institutional and competence systems will dictate whether new service models are effective.

1.6.2   EVOLUTION OF UNIVERSITY LIBRARIES

Traditional libraries, helped by information and technology advances, have moved towards new organisational structures and services in the last decades. Major changes are expected in the future and these will inevitably be related to the integration of virtual learning in higher education. Therefore, the evolution of traditional libraries is deeply connected with the other areas as they all share some of their main concerns and challenges. First of all, the university strategy towards the integration of virtual education will have clear influence in the convergence of computing and library services. The library management team will have to deal on many occasions with the management of the intellectual property rights of resources. As for training and support of teachers and students, the library has to make changes in this area as well; otherwise the users will not be prepared to take advantage of the new library facilities. Finally, it is obvious that in the future there will be a natural relation between all kind of e-learning activities and the use of the library facilities embedded in the learning experience on-campus or off-campus. In this sense, the challenge will be in adopting standards and in the interoperability of the systems.

1.6.3   MANAGEMENT OF IPR ISSUES

The complexities of the environment in which IPR exists in general require careful explanation and the IPR report goes into some detail on some of these crucial issues since simply understanding some of the issues is a major challenge in education. Actual meaningful experiences of IPR are very limited at Universities.

The most immediate conclusion that one must reach is that IPR in education suffers from the Tower of Babel syndrome. The coexistence of so many customs and legal models under one roof and the general misunderstanding amongst one another has provoked much anxiety amongst the different stakeholders. To understand the complexity of the issue one must examine the problem from several, interrelated perspectives. Currently, the IPR issue is almost exclusively dealt with from the legal perspective and there are few other strategies in place for dealing with the digital revolution. The more "advanced" IPR solutions have dealt with legal agreements between universities to share content, the use of "DRMs" (Digital Rights Management) to protect content that is offered to the student, and the participation in "open" shared repositories. None of this really solves the problem of "high Value" learning assets, which could earn an income for the owners, or the issue of a meaningful exchange of content in the much talked about world of re-use of content which has hardly occurred. This step requires a determined strategy of IPR management across the organisation.

Furthermore, there is a more concerted effort to deal with IPR issues in relation to research and development of "products" that can be patented and exploited commercially. The lack of experience in producing saleable editorial content has left universities often paying little attention to this area. Often the issue of ownership of the content is unresolved, making commercial use of it impossible. This problem arises, especially, when there are multiple sources for the content and little is known about its paternity.

Ultimately, resolving this issue is a case of wanting or not to be part of the digital revolution in education, where e-content is an increasingly important component. This is a crucial strategic decision to be taken by the universities. On a more practical note, there are a number of steps that Universities can adopt to prepare themselves, such as identifying content with IPR metadata and using standards in this respect.

1.6.4   SUPPORT TO TEACHING STAFF

The competence framework presented in the following Table 2 shows how complex and multifaceted the profile of eLearning teachers is, covering issues such as pedagogical mastery, communication talent, awareness about the use of technology, online interaction and negotiating processes. Training and practice are required in order to up-skill teachers' professional profiles and to develop and to set forth effective results in pedagogical as well as in organisational terms. Currently, teaching courses includes subjects related to eLearning and the use of it as a delivery method.

This Table 2 presents a preliminary competence framework for eLearning teachers:

KEY TEACHING PROCESSES	COMPETENCE CLUSTERS	EXAMPLES OF TRADITIONAL PEDAGOGICAL COMPETENCES	EXAMPLES OF TECHNOLOGY-RELATED / ELEARNING-SPECIFIC COMPETENCES
LEARNING NEEDS ANALYSIS OF THE ADDRESSED TARGET GROUP(S) – ENROLLED STUDENTS	ANALYSIS COMPETENCES	• Expertise in learning needs analysis techniques. • Expertise in the fundamentals of adult learning. • Ability to identify students' characterics and specific learning needs and expectations.-	• Ability to match students' learning needs with eLearning models. • Ability to take into account students' learning needs to select appropriate learning resources and media. • Ability to use the Internet as a learning resource. • Ability to provide all the necessary administrative support for the different aspects of eLearning.
TRAINING DESIGN	DESIGN COMPETENCES	• Ability to define the learning objectives of a study programme. • Ability to design study programmes in line with the identified pedagogical objectives. • Ability to select and use the adequate reference materials.	• Ability to select the suitable medium for the learning programme. • Ability to design the adequate eLearning reference materials. • Ability to prepare real-time session. • Ability to schedule a virtual session. • Ability to design consistent online monitoring and evaluation tools.
DELIVERY OF THE LEARNING PROGRAMME	DELIVERY / MANAGEMENT COMPETENCES	• Ability to deliver and manage a presential class. Ability to provide learners with subject matter expertise. • Ability to create relationships with learners. • Ability to communicate appropriately and effectively with learners. • Ability to address and manage multi-cultural audiences. • Ability to use appropriate question techniques.	• Ability to deliver and manage a real-time online session. • Ability to deliver and manage a virtual session. • Ability to manage virtual classroom tools effectively. • Ability to provide learners with technological expertise.
MONITORING AND EVALUATION	EVALUATION COMPETENCES	• Ability to select the adequate assessment and evaluation approaches and tools.	• Ability to use consistent and coherent online monitoring and evaluation tests.

KEY TEACHING PROCESSES	COMPETENCE CLUSTERS	EXAMPLES OF TRADITIONAL PEDAGOGICAL COMPETENCES	EXAMPLES OF TECHNOLOGY-RELATED / ELEARNING-SPECIFIC COMPETENCES
		• Ability to use the adequate assessment and evaluation approaches and tools. • Ability to process learners' feedback.	• Ability to retrieve relevant evaluation data from the available online evaluation devices.

Table: Preliminary representation of a competence framework for eLearning teachers

Many professional development (PD) activities within the educational sector focus on the use of computer programmes such as creating PowerPoint presentations or updating a web-based learning environment. While this may be seen as a positive step, these activities fall short of important aspects that influence the success of eLearning programmes. CEDEFOP[12] surveyed a range of dimensions related to teachers training in eLearning, such as:

♦ how teachers acquired new skills in eLearning,

♦ the type of eLearning PD activities they were undertaking,

♦ whether the activities were conducted during work or on their own time.

Results of the survey indicated that PD activities were more "informal" than "formal," meaning that teachers acquired the majority of their eLearning skills through discussions with colleagues rather than through organised PD activities. Only 1 to 4% of their organised PD activities were related to eLearning and nearly one quarter of respondents reported that they spent 5-10% of their PD time outside work hours. Most respondents rated the quality of their PD activities as poor to fair and most were required to fund the majority of the costs themselves.

If Higher Education Institutions are to meet the forecast challenges brought about by the use of technologies for learning, initiatives in eLearning will need to address a variety of domains, ranging from targeted professional development opportunities, organisational management of change, and innovation with an eye on the effects that such innovations may exert on HEI human resources. In this respect, information and communication technologies are changing the way many processes are conducted and raising the service expectations of HEIs customers, namely students, faculty staff (teaching staff, administrative and management staff), and the community as a whole.

The competence framework presented in table 2 of the previous paragraph shows how complex and multifaceted the profile of eLearning teachers is, covering issues such as pedagogical mastery, communication talent, and awareness about the use of technology, online interaction and negotiating processes. Training and practice are required in order to up-skill teachers' professional profiles and to develop and to set forth effective results in pedagogical as well as in organisational terms.

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[12] CEDEFOP (2001): E-learning and Training in Europe. A survey into the use of e-learning in training and professional development in the European Union. CEDEFOP Reference Series; 26. Luxembourg: Office for Official Publications of the European Communities.

Introducing teachers to the use of technology is not enough. HEIs as complex organisations should elaborate the necessary PD activities aimed at introducing teachers to the different possible eLearning models that can be implemented. In this respect, not only is it crucial that teachers are 'introduced' to different eLearning models, but also that the HEI makes clear what eLearning models are to be introduced (e.g. virtual classroom, or collaborative eLearning supporting traditional classroom-based teaching, on-the-job continuous vocational training using web-based learning, etc.), and what related professional competences need to be developed and what organisational solutions need to be implemented.

1.6.5 STUDENTS SUPPORT SERVICES

On the basis of a deep desk research, these **common elements** of student support systems have been identified within Massive project:

♦ planning and good management of services, ideally with strategy to guide them;

♦ responsiveness to diverse learners' needs, both in type, level, phase and delivery mode;

♦ evaluation of services offered, in terms of uptake and non-uptake, and in terms of perceived and actual quality.

Critical issues (meta indicators) are likely to be:

♦ identifying needs: knowing what all learners need and not just averages;

♦ quality of services offered: how good are the services offered and are all areas covered;

♦ providing adequate funding: per capita learner, percentage of other services, shared central vs. School/Faculty;

♦ integration of multiple services into a common service: IT, Library, e-learning services, technical, study skills.

For student support, an **approach** might include assistance with:

♦ options appraisal for student support for e-learning;

♦ designing a strategy for support of learners in e-learning;

♦ design and implementation of a user (learner) needs analysis;

♦ design of the individual support services for different needs;

♦ design of an integrated student support service for e-learning,;

♦ design of instruments to measure quality and effectiveness of student support services.

1.6.6 VIRTUALISATION OF CONTENTS

This area concerning "virtualisation" of contents would appear relatively straightforward. However, to produce high quality methodological resources from academic learning materials it is not sufficient just to transfer contents to a digital format, but it is essential to take into account new methodological approaches which enhance collaboration and lead to more constructive learning and critical thinking.

This subject area is not isolated but it is mainly connected to the university libraries area and the IPR issues. It has also a clear link with training teachers and the support of students, as these are a priority for the efficient design and use of online courses.

CHAPTER 2.
OVERVIEW OF QUALITY APPROACHES IN THE HE INCLUDING THE ROLE OF ICT

2.1.   BOLOGNA AND QUALITY

The background of UNIQUe is the broad Bologna process(1), which aims at creating a European Higher Education Area (EHEA) more compatible and comparable, more competitive and more attractive for our own citizens and for citizens and scholars from other continents.

The original Bologna Declaration of 1999[13] identified the "promotion of European cooperation in quality assurance, with a view to developing comparable criteria and methodologies" as one of the core areas.

Two years after the Bologna Declaration, the ministers in charge of higher education of 33 European signatory countries met in Prague in May 2001 to follow up the Bologna Process and to set directions and priorities for the following years. In Prague they reaffirmed their commitment to the objectives of the Bologna Declaration. They also expressed there their appreciation for the active involvement of ESIB[14] and EUA[15] in the Bologna Process.

In the 2003 Berlin communiqué[16] the Ministers of Education committed themselves to supporting further development of quality assurance at institutional, national and European level. They stressed the need to develop mutually shared criteria and methodologies on quality assurance. They also stressed that consistent with the principle of institutional autonomy, the primary responsibility for quality assurance in higher education lies with each institution itself and this provides the basis for real accountability of the academic system within the national quality framework. According to the Berlin Communiqué, by 2005 national quality assurance systems should include:

♦   a definition of the responsibilities of the bodies and institutions involved;

♦   evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results;

♦   a system of accreditation, certification or comparable procedures;

♦   international participation, co-operation and networking.

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[13] Bologna Declaration by the European Ministers of Education. The European Higher Education Area, 1999. URL: http://www.bologna-berlin2003.de/pdf/bologna declaration.pdf.

[14] National Unions of Students in Europe (ESIB). Website. URL: http://www.esib.org/ [as at February 28, 2007].

[15] European University Association (EUA). Website. URL: http://www.eua.be/

[16] [2] Berlin Communiqu´e by the European Ministers of Education. Realisingthe European Higher Education Area, 2003. URL: http://www.bologna-berlin2003.de/pdf/Communique1.pdf.

The Berlin Communiqué requested the ENQA[17], a European forum for exchange of practice in quality assurance, EUA, EURASHE[18] and ESIB, to agree on a set of standards, procedures and guidelines on internal and external quality assurance and a peer review system for quality assurance bodies. They furthermore recommended to establish a European Register of quality assurance agencies.

ENQA's report on "Standards and Guidelines for Quality Assurance in the European Higher Education Area [12]" was published in February 2005 and refers to:

♦ standards for internal and external quality assurance arrangements for higher education institutions;

♦ internal quality assurance standards for quality assurance agencies;

♦ cyclical review of national quality assurance agencies; and

♦ a European register of quality assurance agencies aiming to further the development of the European Higher Education Area by creating and managing a Register that will provide clear and reliable information about reliable and trustworthy quality assurance agencies operating in Europe (please refer to Chapter 3.

At the 2005 Bergen summit the standards and guidelines as proposed in the ENQA report were adopted. A strong commitment was expressed to develop and implement them by 2007. In the Bergen communiqué[19] it is asked that the practicalities of implementation are further developed by ENQA in cooperation with EUA, EURASHE and ESIB with a report back to the Ministers through the Bologna Follow-up Group (BFUG), more specifically through the "E4" working group.
This working group wrote for this purpose a Report to the London Conference of Ministers that took place on 17-18 May 2007, on a European Register of Quality Assurance Agencies . It proposes a structure, name, cost, funding, nature, information, procedures, etc for this Register. The Register is expected to be operational in the second half of 2007.[20]

2.2.   BOLOGNA AND ELEARNING

Bologna does not mention yet eLearning or ICT-based learning. In the Prague Communiqué (2001) it was introduced. A new action line, namely lifelong learning, was established and this action line, includes ICT-based learning.

Bologna Follow-up Seminars were the main vehicle for the follow-up of the Prague Communiqué and the Berlin Communiqué. One of these seminars took place in Ghent on 4 and 5 June 2004: "Bologna and the challenges of e-learning and distance education".

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[17]   European Association for Quality Assurance in Higher Education (ENQA). Website. URL: http://www.enqa.eu/ [as at February 28, 2007].
[18]   European Association of Institutions in Higher Education (EURASHE). Website. URL: http://www.eurashe.eu/ [as at February 28, 2007].
[19]   Bergen Communiqué by the European Ministers of Education. The European Higher Education Area - Achieving the Goals, 2005. URL: http://www.bologna-bergen2005.no/Docs/00-Main doc/050520.
[20]   Bergen Communique.pdf http://www.enqa.eu/files/ENQA%20occasional%20papers%2013.pdf

One of the recommendations for further development of the Bologna Process was "to extend quality assurance, accreditation and qualifications frameworks to e-learning and other non-classical modes of delivery in an integrated approach encompassing the full range of higher education." [21]

This seminar also recommends "to make the EHEA an Open Higher Education Area by fully integrating the dimension of flexible learning paths supported by e-learning and other non-classical learning and teaching forms." [22]

Rationale behind this is that the reform that the European higher education area needs, in order to play a leading role in the Europe of Knowledge and at global level, can be enhanced and facilitated by improving the way European Universities adopt and integrate ICT in their activities, both at the level of the pedagogy of e-learning and at the level of the process through which universities adopt and integrate ICT in their work.

Also the European Commission's eLearning Action Plan[23] stresses the importance of ICT in Higher Education when it defines eLearning as "the use of new multimedia technologies and the Internet to improve the quality of learning, by facilitating access to resources and services as well as remote exchanges and collaboration".

2.3.   QUALITY IN ELEARNING

If it is in fact true that today most of European universities are integrating technology in their daily work, it is also true that, due to the fact that ICT based learning is still a rather new phenomenon and that different "visions" of eLearning exist (just to quote two extreme visions, it is very difficult to compare content-based eLearning and activity-based eLearning), the culture of quality in eLearning of European universities is frequently weak, and, when present, is focussing on the didactics of eLearning and not so much on the more general impact that ICT is having at different levels (management, funding, international academic collaboration) of the university sphere.

In other words, despite the broad consensus that much more effort should be put into the question of quality awareness, improvement and management at university level, the quality of both the products and programs in the field of ICT-based learning vary widely between EU higher education institutions and a common concept of quality improvement which is theoretically sound and at the same time meeting the expectations of practice is still lacking.

There have been several initiatives in the past to address quality in ICT-based or e-learning. The first initiatives in quality in eLearning have started from two general approaches that have been used in industry.

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[21]   From Berlin to Bergen, General Report of the Bologna Follow-up Group to the Conference of European Ministers Responsible for Higher Education, Bergen, 19-20 May 2005.
[22]   From Berlin to Bergen, General Report of the Bologna Follow-up Group to the Conference of European Ministers Responsible for Higher Education, Bergen, 19-20 May 2005.
[23]   http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0172en01.pdf

These are:

♦ The lifecycle Model focuses on different phases of a product development, beginning with planning to the termination of a product's use. Production and service processes follow a certain lifecycle, starting with the very first idea ending with the termination of a product

♦ The functional Model covers different functional areas of educational activities, ranging from administrative issues to the design of learning units. This approach focuses on functional areas in the design process.

Several European Commission projects have taken one of these as a basis for the application to the eLearning domain.
There are also several national, European, international and non-profit organisations active in the development of guidelines for quality in eLearning.
In what follows an overview of relevant approaches, projects and organisations are given.

2.4.   GENERAL, NOT SECTOR SPECIFIC APPROACHES TO QUALITY

2.4.1   ISO 9001:2000 QUALITY MANAGEMENT STANDARD

ISO 9000 is a family of standards for quality management systems. ISO 9000 is maintained by ISO, the International Organization for Standardization and is administered by accreditation and certification bodies. ISO 9001 is one of the standards in the ISO 9000 family. **ISO 9001:2000 Quality management systems — Requirements** is a document of approximately 30 pages which is available from the national quality organization in each country.

ISO 9001:2000 combines the three standards 9001, 9002, and 9003 into one, now called 9001. Design and development procedures are required only if a company does in fact engage in the creation of new products. The 2000 version sought to make a radical change in thinking by actually placing the concept of process management front and centre. ("Process management" was the monitoring and optimizing of a company's tasks and activities, instead of just inspecting the final product.) The 2000 version also demands involvement by upper executives, in order to integrate quality into the business system and avoid delegation of quality functions to junior administrators. Another goal is to improve effectiveness via process performance metrics — numerical measurement of the effectiveness of tasks and activities. Expectations of continual process improvement and tracking customer satisfaction were made explicit.[24]

Since the ISO standard defines the expected levels in terms of efficiency, compatibility and maintenance, evaluation consists almost exclusively of quantitative measurements. Little information is retrieved to measure the degree of success of a training activity from a pedagogical point of view.

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[24]   (Source: Wikipedia) http://nl.wikipedia.org/wiki/ISO_9001

2.4.2   TQM

As defined by the International Organization for Standardization (ISO): "TQM is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society".

Wikipedia describes it as "a management strategy aimed at embedding awareness of quality in all organizational processes. TQM has been widely used in manufacturing, education, government, and service industries, as well as NASA space and science programs.

Total Quality provides an umbrella under which everyone in the organization can strive and create customer satisfaction. TQ is a people-focused management system that aims at continual increase in customer satisfaction at continually lower real costs."[25]
EFQM is one of the most commonly used examples of TQM.[26]

2.4.3   EFQM EXCELLENCE MODEL

Organisations use the EFQM (European Foundation for Quality Management)[27], Excellence Model as a quality management system and an overall framework for quality development. EFQM Model is a practical tool that is also used by educational organisations mostly in self-evaluation of the organisation, but it is also a useful framework for external audits as well as a structure for educational organisation's management system. The EFQM Model forces to examine organisation's functions, operations and results as a whole. Excellent educational organisations identify key customers and customer groups for whom educational services are provided. Organisation clarifies current and future needs of customers and customer groups and develops services accordingly. Organisations follow the satisfaction of customers and try to forecast the changes.

In promoting continuous improvement, the EFQM Model relies on few fundamental concepts or approaches :

♦   Results Orientation

♦   Excellence is achieving results that delight all the organisation's stakeholders.

♦   Customer Focus Excellence is creating sustainable customer value.

♦   Leadership and Constancy of Purpose

♦   Excellence is visionary and inspirational leadership, coupled with constancy of purpose.

♦   Management by Processes and Facts

♦   Excellence is managing the organisation through a set of interdependent and interrelated systems, processes and facts.

♦   People Development and Involvement

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[25]   http://en.wikipedia.org/wiki/TQM
[26]   http://www.valuebasedmanagement.net/methods_efqm.html
[27]   http://www.efqm.org/

♦ Excellence is maximising the contribution of employees through their development and involvement.

♦ Continuous Learning, Innovation and Improvement

♦ Excellence is challenging the status quo and effecting change by utilising learning to create innovation and improvement opportunities.

♦ Partnership Development

♦ Excellence is developing and maintaining value-adding partnerships.

♦ Corporate Social Responsibility

♦ Excellence is exceeding the minimum regulatory framework in which the organisation operates and to strive to understand and respond to the expectations of stakeholders in the society.

2.5. EUROPEAN COMMISSION PROJECTS ON QUALITY IN ELEARNING

The European Commission has prioritised Quality in its eLearning Action Plan 2002-2005. This Action Plan includes 4 specific areas: Infrastructures and equipment; Quality, content and services; Training at all levels; European co-operation and networking. After a call for proposals in the Autumn of 2003, 4 strategic projects looking at the issue of quality from different perspectives were launched. These cover the topics of European and Regional Policy (SEEL), good practice (SEEQUEL), pedagogy (Qual E-Learning) and standards (EQO).

In addition to the specific quality projects supported through the eLearning initiative, several other projects on this issue have been developed through other European Commission funding programmes, such as Minerva and Erasmus.

In 2004, 2 other important projects on quality have been selected in the eLearning Programme: QUIS and TRIANGLE

Summaries of these projects are presented in the next paragraphs.

2.5.1 SEEQUEL- SUSTAINABLE ENVIRONMENT FOR THE EVALUATION OF QUALITY IN E-LEARNING

The SEEQUEL - Sustainable Environment for the Evaluation of Quality in E-Learning - project originated from the joint initiative of the e-Learning Industry Group (eLIG) and of a number of European expert organizations and associations at all levels of education and training, co-ordinated by the MENON Network. It therefore brought together, in a fundamental way, the companies in the e-learning industry who provide the tools and services, the users, the expert organizations and agencies.

In order to define a cohesive, inclusive and robust approach to the Quality in the implementation and use of e-Learning systems and processes, the SEEQUEL project aimed at taking the required step to establish a European "eLearning Quality" Forum, that addressed the following issues:

♦ Quality assessment, evaluation and conformance practice;

- Cases of "good practice" and design guidelines;

- Quality assurance frameworks (with criteria and standards).

SEEQUEL produced the following outputs: a set of long-term core results with the mission of responding to the quality-related research needs of the eLearning community, and a first set of tools, deriving from the first category of results.

The three core results were:

- The European eLearning quality Forum, a state of the art web platform where the different eLearning quality stakeholders can meet to discuss, exchange, debate and present their approaches and priorities in the field;

- The SEEQUEL core quality Framework, an integrated set of quality criteria that, by combining different sectors, roles and visions of the world, is able to bring into a stakeholder picture of quality the other categories views (please refer Annex 1);

- The European eLearning quality Laboratory, a priority-setting environment able to transform the needs and the problems raised in the Forum into priorities for action and to design, through an intense experts working groups dynamic, the appropriate tools to face the users needs.

- The eLearners Quality Guide: an extremely usable collection of guidelines and hints able to guide the novice as well as the expert eLearner in any decision process about eLearning.

Thanks to the four above results, during the project it was possible to understand the main needs around eLearning quality and the approaches and positions of the different groups of stakeholders, and to filter these needs through the Quality Lab working groups and through the Core Quality framework criteria. Following this process, four tools were produced:

- The (e)Learners Bill of Rights: a chart of fundamental rights of the (e)learner that, in prospective, every eLearning material/service should comply with to be considered of quality.

- The eLearners Quality Guide: an extremely usable collection of guidelines and hints able to guide the novice as well as the expert eLearner in any decision process about eLearning.

- The Quality guide to the non-formal and informal learning processes: a guide conceived to encourage the adoption of quality approaches within less structured and more informal learning environments.

- A Quality tool for industry decision makers: a step-by-step iterative tool that can help industry and SMEs decision makers facing an eLearning related problem to look at the issue from a multiple perspective, taking into account a comprehensive set of criteria.

2.5.2 EQO MODEL: A CONCEPTUAL MODEL FOR CLASSIFICATION OF QUALITY APPROACHES

The European Quality Observatory (EQO) was an internet-based repository implemented as a portal which promoted the use of appropriate quality management (QM), quality assurance (QA), and quality assessment (QS) concepts for E-Learning in different communities. The main objective was to provide a central facility for developers, managers, administrators, decision makers, and end-users to find a suitable approach for their organizations' needs. Especially national, regional, and local needs and requirements would be included in the observatory, leading to a European Quality Community. The main objectives can be summarized as following:

♦   providing a conceptual framework for the description and harmonization of quality approaches;

♦   implementing and developing of Standards: The project will be directly linked to standardization groups of CEN/ISSS (Workshop Learning Technologies) and ISO/IEC JTC1 SC36 in order to directly transfer results from standards committees to the users and vice versa. One of the main outputs is the development of a European Quality Framework, a harmonized reference model for E-Learning Quality;

♦   providing an internet-based repository for quality management, quality assurance, and quality assessment approaches in the field of E-Learning;

♦   structuring, comparing, and reusing quality approaches for the field of E-Learning;

♦   providing recommendations for the use of quality management, quality assurance, and quality assessment approaches for various target groups (e.g., end users, HE administrators, developers) and for specific purposes (e.g., process improvement, product transparency, domain-specific purposes, national/regional/local needs);

♦   providing services to support the implementation of quality approaches in organizations. Users will be able to use internet-based applications that they can implement quality approaches (such as process models, quality criteria) adapted to their context, objectives, and experiences;

♦   establishing and supporting a European community of practice in order to reach a common understanding of the concept of "E-Learning Quality".

The main steps towards a working community of practice and a complete repository can be described as following:

♦   collection of Quality Approaches based on the results of the CWA Quality Assurance of the CEN/ISSS Workshop Learning Technologies;

♦   conceptual Design/Classification of approaches: The approaches collected in phase 1 will be classified in a classification scheme which provides a structured approach to search and retrieval purposes. The classification scheme is also based on the classification of the CWA Quality Assurance of the CEN/ISSS Workshop Learning Technologies. This classification contains the following attributes: general data (e.g., name, description, source), methodology, target groups, processes, results / products, assessment criteria, and standards;

♦ development of the quality repository, search engine and adaptation tool. Here users can adapt generic quality approaches (e.g., process models, product criteria) to the needs and requirements of their organization.;

♦ community and expertise;

♦ evaluation.

Partners: University of Essen, European Schoolnet, MMB Institute, CERTHITI, Ecole Nationale de Ponts et Chausses.

The European Quality Observatory is now integrated into the European Foundation for Quality in eLearning (EFQUEL).

2.5.3 SEEL - SUPPORTING EXCELLENCE IN E-LEARNING

SEEL was a consortium dedicated to the study of the impact of quality policies in e-learning at local and regional levels in order to measure their influence on local and regional development – employment, innovation, competence development, etc. – and to provide recommendations on quality assurance policies to the different stakeholders, and particularly to policy makers.

Learning in a knowledge economy and society requires the development of new skills, new visions and new models that would most likely diverge from the traditional approaches whose roots were grown in the industrial society. This new eLearning environment needs new quality assurance models.

In order to measure the impact of the knowledge economy and society on quality assurance, SEEL performed a series of activities whose result will provide the information required to make informed decisions on quality assurance:

♦ regional benchmarking: comparing how different regional and local authorities implement quality assurance schemes in different European countries and measure their impact on local and regional development;

♦ pilot programmes: support shadowing quality assurance programmes (e.g. experiment the use of Quality Mark in Spain) in order to measure the acceptability of transnational approaches, identify cultural issues and feasibility of a common approach to the quality of the different components of an elearning environment;

♦ focus groups: to get feedback from key actors in the field of education, human resource management, policy making on the issues of quality assurance in the different dimensions: technical, organisational, people, resources, processes, etc..

2.5.4   TRIANGLE

The overall project aim was to contribute to the quality of e-learning in Europe by building a sustainable environment that can express leadership in this domain. The main objectives were:

♦   to promote the European diversity of quality approaches and services in the field of learning, education and training,

♦   to connect results and concepts on European e-learning quality developed in three successful projects

♦   to broaden the discussion and discourse on ELearning quality

♦   to provide a sustainable infrastructure as a single entry point for ELearning quality.

The project was based on work, which had previously been done in the frame of three European e-learning quality projects: SEEL, EQO and SEEQUEL. The projects were complementary in nature and addressed the subject of quality from different perspectives. They all have done thorough research in the field of quality in e-learning, established each a network of European actors and developed tools and concepts on each of their fields of practice.

Approach:

The Triangle project aimed at further development and broader and sustainable dissemination of project results which have been successfully developed within three projects and which belonged to the e-learning quality project cluster. The main approach for achieving this objective was to develop conceptual frameworks which are capable of integrating three different perspectives on quality development and thus lead to comprehensive tools and approaches for quality development which follows the paradigm of promoting European diversity and which enables a richer and better analysis.

The project took actions which were directed at dissemination, building and moderating large networks and which lead to sustainable organisations like the European Foundation for Quality in E-Learning.

Results:

The project provided the environment for the successfully establishment of the European Foundation for Quality in E-Learning (EFQUEL) which was launched at Online Educa 2004 in Berlin. The Foundation provides guidance and leadership in these fields by involving all relevant actors in a comprehensive network. An integral purpose of the Foundation is to identify the actors involved with quality in European elearning and involve them in a European community of users and experts to share experiences how e-learning can be used to strengthen individual, organisational, local and regional development, digital and learning literacy and promote social cohesion and personal development.

The Foundation is a self sustainable platform for the dissemination of the second deliverable of TRIANGLE, the European E-Learning Quality Mark for ELearning (EQM). The EQM will combine the service portfolio of expertise which has been developed in the frame of the three projects into an consulting, accreditation and certification model for different educational sectors. The European E-Learning Quality Service Portal (EQUAS) serves as a single sign-on access point to resources related to quality, amongst them services for searching, comparing and analysing quality approaches and recommendation as well as profiling mechanisms which will support users in their search for quality approaches. All services have been tested, improved and validated before being disseminated to a greater public in the frame of the EQUAS portal.

Overall TRIANGLE contributed to enhance the quality of European e-learning by providing quality services in terms of recent information, search, and adaptation mechanisms for quality strategies, enabling dialogue between researchers, organisations, and users (such as learners, teachers, decision, policy makers) and creating and supporting a community of users, developers, researchers, and organisations to improve the exchange of expertise, knowledge, and experiences in the field of e-learning quality.

Co-ordinating organisation: University of Duisburg-Essen, Information Systems for Production and Operations Management

Partner organisations: European Schoolnet (Brussels, Belgium), MENON Network EEIG (Brussles, Belgium), FIM-New Learning (Erlangen, Germany), European Institute for E-Learning (Champlost, France), University of Reading (Reading, UK).

2.5.5　QUIS

The activities in the QUIS project were directed towards QUality in e-learning, interoperability and reusability of e-learning material and development of Standards. The project also looked at cost effectiveness in e-learning. QUIS proposed a *process oriented system* for quality assurance. For the design and development processes QUIS took a different approach. Process and product oriented were combined into common framework. QUIS aimed to promote more student centred models, using PBL or a more socio constructivistic approaches.

QUIS looked at both existing and experimental Learning Support Systems to see how adaptable they are for new European learning models. They also examined Standardisation propositions (IMS, SCORM, etc.) and evaluated these against the learning models. Their aim was to discuss strengths and weakness and make recommendations for further development.

Many institutions and e-learning networks have experienced how difficult it is control the cost of developing and running net based education and they have to close down operations after a short time. The aim of QUIS was to develop models for cost effective implementation and running of net based education.

The project was articulated in different stages:

♦ QAS (Quality Assurance System) for e-learning: analyse and disseminate previous projects and results;

♦ enhance the QAS further by focus on the ongoing Bologna process (structure and management), best practice and academic diversity;

♦ analyse existing and experimental e-learning systems: related to parameters as management capabilities, pedagogical support, content development and adaptability etc.;

♦ increase accessibility and understanding of evolving e-learning standards;

♦ propose requirements for the next generation of e-learning systems by developing;

♦ design patterns to guide teachers and increase personalisation using agent technologies.

The project analysed available economic models and case studies in e-learning and suggested new and balanced models for cost effectiveness.

Results

♦ A "database" of information of QAS' and quality in e-learning reports;

♦ a report on quality in e-learning;

♦ joint European study programes;

♦ best practice for net based education across language and cultural barriers;

♦ state of the art report regarding managerial, content and pedagogical capabilities of LMS';

♦ a guide to understand standards and relationships between different initiatives and projects;

♦ a requirement specification for the next generation of learning support systems;

♦ a model report on cost effectiveness based on both a theoretical and practical approach.

Co-ordinating organisation: Stiftelsen TISIP
Partner organisations:

♦ Norges teknisk-naturvitenskapelig universitet, NTNU, Norway

♦ Mitthøgskolan, Sweden

♦ Universita' di Roma "La Sapienza", Italy

♦ SZÁMALK Education Ltd, Hungary

2.5.6   QUAL E-LEARNING (WWW.QUAL-ELEARNING.NET)

The project aimed at achieving the following general and specific goals:

General Aims:

♦   Contribute to the definition of a general framework of e-learning quality;

♦   form the basis of an European debate on the characteristics of use and on e-learning quality;

♦   promote a better coordination of the actions carried out in this field both by each Member State and at Community level;

♦   guide the reflection and the choices of those which are and especially which could become teachers, producer-users, customers or users of these training instruments.

Specific objectives :

Give to 200 key training actors working in Italy, France, Germany and Spain (involved in all levels of training systems) knowledge, tools and methods to improve evaluating the effectiveness and the impact of training cycles that include the use of e-learning.
This objective was achieved through the application of a reference model based on best practices, and by providing methods and techniques of application, reference standards and the conditions that ensure the transfer of these practices.

Results:

The Qual E-learning project made available to the general public a series of resources linked to the project's activities:

♦   questionnaires: an investigation using questionnaires is underway in order to evaluate training effectiveness and impact with e-learning;

♦   reports & results: access to public documents produced by the project;

♦   bibliography: a list of resources for further information about quality in e-learning;

♦   the Qual E-learning project handbook on e-learning best practices.

2.6. ORGANISATIONS CREATING GUIDELINES FOR QUALITY IN ELEARNING OR DISTANCE LEARNING IN HE

2.6.1 BRITISH QUALITY ASSURANCE AGENCY (QAA) (HTTP://WWW.QAA.AC.UK/)

In March 1999, guidelines for distance learning in higher education have been published in the UK by the Quality Assurance Agency (QAA). These guidelines[28] offer advice on assuring the quality and academic standards of higher education programmes of study provided through distance learning. They are arranged under six headings:

♦   system design;

♦   program design, approval and review;

♦   the management of program delivery;

♦   student development and support;

♦   student communication and representation;

♦   student assessment.

The guidelines have been produced at the request of the distance learning community in the United Kingdom, which has recognised not only that the continued development of this form of higher education and its worldwide acceptance depend upon rigorous quality assurance, but also that there are many areas in which the usual ways of doing things for "on-campus" provision are not necessarily appropriate in the context of distance learning.

Further information on QAA approach to eLearning are presented in Chapter 3.

2.6.2 NORWEGIAN ASSOCIATION FOR DISTANCE EDUCATION AND FLEXIBLE EDUCATION (NADE) (HTTP://WWW.NADE-NFF.NO/)

In 1993 the Norwegian Association for Distance Education and Flexible Education (NADE) published quality standards in distance education. They were revised in 1996 [6] and 2001 [7] (only in Norwegian).[29]

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28 Quality Assurance Agency for Higher Education (QAA). Distance learning guidelines, March 1999. URL: http://www.qaa.ac.uk/academicinfrastructure/codeofpractice/distancelearning/default.asp.

29 Norwegian Association for Distance Education and Flexible Education (NADE). Quality standards. WWW document, 1996. URL: http://www.nettskolen.com/forskning/18/kvalen1.htm [as at February 28, 2007].

2.6.3   COUNCIL FOR HIGHER EDUCATION ACCREDITATION (CHEA) (HTTP://WWW.CHEA.ORG/)

The American Council for Higher Education Accreditation (CHEA) published two monographs on Accreditation and Quality Assurance in Distance Learning. The first monograph [13] describes the scope and impact of distance learning on higher education in the United States of America. It identifies the primary challenges that distance learning poses for accreditation and describes the thoughtful and comprehensive response to date of the accrediting community to assure quality in distance learning.

The second monograph [14] describes the work of programmatic accreditors in the US in the area of distance learning. It explores the extent to which these accrediting organizations review distance learning as well as the standards, policies, and procedures they use.

2.6.4   EUROPEAN ASSOCIATION OF DISTANCE LEARNING (EADL) (HTTP://WWW.EADL.ORG/)

All EADL members have to sign up to the EADL Code of Conduct which is part of the Bye-laws of the Association. They must also comply with the 'Minimum Standards of Quality for EADL Members'. These include standards on:

♦   pre-enrolment practices;

♦   counselling practices (other than direct lesson tutorials);

♦   examinations;

♦   face-to-face teaching;

♦   enrolment and contract practices;

♦   product management practices;

♦   tutorial practices;

♦   technology-based learning;

♦   other practices.

2.6.5 INQAAHE: INTERNATIONAL NETWORK FOR QUALITY ASSURANCE AGENCIES IN HIGHER EDUCATION (HTTP://WWW.INQAAHE.ORG/)

The main purpose of the Network is to collect and disseminate information on current and developing theory and practice in the assessment, improvement and maintenance of quality in higher education.

They have produced Guidelines of Good Practice. The original Guidelines of Good Practice were published in 2003, this revised edition30 of the Guidelines was published in October 2006. It is the result of discussions and consultation involving representatives of over 65 countries. It is the work of quality assurance agencies dedicated to ensuring that higher education students, throughout the world, have access to high quality education.
The Guidelines are of interest to all those who are concerned with quality assurance in higher education but they are specifically addressed to quality and assurance agencies who will be referred to in this statement as External Quality Assurance Agencies (EQAAs).

The overarching purpose of the Guidelines is to promote good practice in external quality assurance and its aims can be expressed more specifically as follows:

♦   to promote professional development among EQAAs and their staff;

♦   to be used as part of the criteria in the self and external evaluation of EQAAs;

♦   to use as a framework to guide the construction of a new EQAA;

♦   to promote the public accountability of EQAAs.

2.6.6 EUROPEAN FOUNDATION FOR QUALITY IN eLEARNING (EFQUEL) (HTTP://WWW.QUALITYFOUNDATION.ORG/)

The European Foundation for Quality in eLearning (EFQUEL) is a European membership organisation. Its mission is to enhance the quality of eLearning in Europe by providing services and support for all stakeholders. EFQUEL is built on principles of dialogue and inclusiveness to promote excellence and innovation to achieve Learning Europe. It is an initiative of the Triangle project funded by the European Commission. The portal provides a unique forum for information, research, networking and debate on innovation and best practice in eLearning quality.

EFQUEL approaches quality in e-learning from different and complementary perspectives and develop full-scale services for all educational fields, regional contexts and target groups. The Foundation is built on principles of dialogue and inclusiveness to promote excellence and innovation to achieve Learning Europe.

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30   http://www.inqaahe.org/docs/Guidelines%20of%20Good%20Practice%20Oct%2006.doc

The main objectives are:

♦ to promote the European diversity of quality approaches and services in the field of learning, education and training,

♦ to connect results and concepts on European e-learning quality developed in three successful projects,

♦ to broaden the discussion and discourse on E-Learning quality and to provide a sustainable infrastructure as a single entry point for E-Learning quality.

EFQUEL provides support, transparency, open participation and leadership for a broad range of topics. The purpose of the foundation is to involve actors in a European community of users and experts to share experiences on how eLearning can be used to strengthen individual, organisational, local and regional development, digital and learning literacy, and promote social cohesion.

2.6.7 UNESCO / OECD (HTTP://WWW.OECD.ORG/ - HTTP://WWW.UNESCO.ORG/)

In December 2005, the OECD and UNESCO jointly produced "Guidelines for Quality Provision in Cross-border Higher Education" [31] . It provides an international framework to protect students and other stakeholders from low-quality provision and disreputable providers. They will sustain the development of quality cross-border higher education that meets human, social, economic and cultural needs. The Guidelines set out how governments, higher education institutions/providers, student bodies, quality assurance and accreditation bodies, academic and professional recognition bodies of the sending country and receiving country could share responsibilities, while respecting the diversity of higher education systems.

These Guidelines have four main policy objectives:

♦ 'Students/learners protection' from the risks of misinformation, low-quality provision and qualifications of limited validity.

♦ Qualifications should be readable and transparent in order to increase their international validity and portability. Reliable and user-friendly information sources should facilitate this.

♦ Recognition procedures should be transparent, coherent, fair and reliable and impose as little burden as possible to mobile professionals.

♦ National quality assurance and accreditation agencies need to intensify their international cooperation in order to increase mutual understanding

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[31] UNESCO/OECD guidelines on "Quality provision in cross-border higher education" http://www.oecd.org/document/52/0,2340,en_2649_34549_29343796_1_1_1_1,00.html

2.7.   CONCLUSIONS

Following the excursive discussion on eLearning related quality approaches and projects (presented in this chapter)., the next three chapters are devoted to the illustration of initiatives and frameworks that focus on certification and accreditation practices applicable to technology enhanced learning programmes or institutions within HE.

Each chapter explores this issue from a different perspective or from a different initiators :

♦   Chapter three presents the experiences of National or Regional government bodies/ public institutions/public authorities which intend to establish quality assurance in HE and develop formal accreditation frameworks for institutions and/or programmes.

♦   Chapter four illustrates projects and initiatives in which the HE community organises itself by using peer review /self-assessment approaches (normally without formal accreditation).

♦   Chapter five details initiatives in which an Association/independent third party introduces a quality label. In this case, the independent body, which offers the accreditation service, does so without an institutional mandate, rather responding to a need perceived in the stakeholders' community.

CHAPTER 3.
GOVERNMENT LEAD QUALITY ASSURANCE ACCREDITATION

3.1   "THE ENQA FAMILY"

The European Network for Quality Assurance in Higher Education was established in 2000 to promote European co-operation in the field of quality assurance. In November 2004 the General Assembly transformed the Network into the European Association for Quality Assurance in Higher Education (ENQA). The idea for the association originates from the European Pilot Project for Evaluating Quality in Higher Education (1994-95) which demonstrated the value of sharing and developing experience in the area of quality assurance. Subsequently, the idea was given momentum by the Recommendation of the Council (98/561/EC of 24 September 1998) on European co-operation in quality assurance in higher education and by the Bologna Declaration of 1999.

The ENQA members are located in 21 countries [32]: and all Agencies have the main aims of accompanying University in the Bologna Process and promoting quality teaching and learning processes within Higher Education.

By surfing in the websites of the national Agencies (when the information were made available in English), a brief description of the Quality Assurance Agencies who have explicitly mentioned quality of eLearning and ICT in their presentation/criteria and/or in available documents are presented.

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[32]   AUSTRIA: Austrian Accreditation Council, Vienna - FHR - Fachhochschulrat, Vienna

BELGIUM: Council of Flemish Institutions of Higher Education, Brussels - EUA - European University Association, Brussels - VLIR - Flemish Interuniversity Council, Brussels

CYPRUS: CEEA - Council of Educational Evaluation-Accreditation, Nikosia

CZECH REPUBLIC: Accreditation Commission of the Government of the Czech Republic/Ministry of Education, Youth and Sports, Prague

DENMARK: EVA - Danish Evaluation Institute, Copenhagen

ESTONIA: Estonian Higher Education Quality Assessment Council, Tallinn

FINLAND: FINHEEC - Finnish Higher Education Evaluation Council, Helsinki

FRANCE: CNÉ - Comité National d'Évaluation, Paris - CTI - Commission des Titres d'Ingénieur, Ecully

GERMANY: Accreditation Council, Bonn - ACQUIN - Accreditation, Certification and Quality Assurance Institute, Bayreuth - ASIIN - Fachakkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik e.V., Düsseldorf - FIBAA - Foundation for International Business Administration Accreditation, Bonn - ZEvA - Central Evaluation and Accreditation Agency Hannover, Hannover

Germany, Regional: EVALAG - Stiftung Evaluationsagentur Baden-Wuerttemberg, Mannheim

HUNGARY: HAC - Hungarian Accreditation Committee, Budapest

IRELAND: HEA - Higher Education Authority, Dublin 2 - HETAC - Higher Education and Training Awards Council, Dublin 2

ITALY: CNVSU - Comitato Nazionale per la Valutazione del Sistema Universitario, Rome

LATVIA: HEQEC - Higher Education Quality Evaluation Centre, Riga

The Netherlands: Inspectorate of Higher Education, Utrecht - NQA - Netherlands Quality Agency, Utrecht - NVAO - Accreditation Organisation of the Netherlands and Flanders, The Hague QANU - Quality Assurance Netherlands Universities, Utrecht

NORWAY: NOKUT - Norwegian Agency of Quality Assurance in Education, Oslo

PORTUGAL: CNAVES - Conselho Nacional de Avaliação do Ensino Superior, Lisbon

SLOVAK REPUBLIC: Accreditation Commission, Bratislava

SPAIN: ANECA - National Agency for Quality Assessment and Accreditation of Spain, Madrid - AQU - Agency for Quality Assurance in the Catalan University System, Barcelona

SPAIN, Regional: AGAE - Agencia Andaluza para la Evaluación de la Calidad y Acreditación Universitaria, Córdoba

SWEDEN: NAHE - National Agency for Higher Education, Stockholm

SWITZERLAND: OAQ - Center for Accreditation and Quality Assurance of the Swiss Universities, Bern

UK: QAA - Quality Assurance Agency for Higher Education, Gloucester

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3.1.1 ASIIN, THE GERMAN ACCREDITATION AGENCY SPECIALISED IN ACCREDITING DEGREE PROGRAMS IN ENGINEERING, INFORMATICS, THE NATURAL SCIENCES AND MATHEMATICS (GERMANY)

ASIIN, the German Accreditation Agency Specialised in Accrediting Degree Programs in Engineering, Informatics, the Natural Sciences and Mathematics, is the only German accreditation agency explicitly specialised in accrediting degree programmes in these subject areas. ASIIN is a non-profit, registered association and has been accredited by the German Accreditation Council (Akkreditierungsrat) since December 12, 2002.

The ASIIN Requirements and Procedural Principles describe the requirements as well as the procedures for the award of the ASIIN Quality Label. They are revised in regular intervals and adapted to recent developments and results from accreditation practice.

In the requirements and procedural principles for the accreditation and reaccreditation of Bachelor's and Master's degree programmes different sections dealing with ICT and eLearning are reported: e.g. 3.2. Course of study: didactic concept/programme type (full-time, part-time, supported by multimedia/telematics, on campus, distance or online programmes.); 4.5. Support for teaching and Study 4.5.1. Computer facilities.

3.1.2 FHR - FACHHOCHSCHULRAT, VIENNA (AUSTRIA)

The FH Council is an authority that is responsible for the external quality assurance (accreditation and evaluation) in the Austrian FH sector. The FH Council consists of 16 members; half of them are required to have the relevant post-doctoral lecturing qualification (Habilitation) and the other half are required to prove that they have worked in the fields relevant for FH degree programmes for several years.

The FH Council's main responsibilities include accrediting FH degree programmes and evaluating FH degree programmes and FH institutions. Other responsibilities of the FH Council:

♦ Awarding academic degrees for FH degree programmes and recognising foreign degrees ("nostrification");

♦ Ensuring education standards by monitoring the degree programmes, in particular the final examinations;

♦ Promoting the quality of teaching and learning as well as innovations in FH degree programmes through research activities, further education and other measures;

♦ Advising the competent federal minister in issues regarding the FH system and the use of federal funds as well as recommending locations for FH degree programmes.

Within the Guidelines of the Fachhochschule Council for the Accreditation of Bachelor's, Master's and Diploma Degree Programmes there is a specific appendix on eLearning:

Didactic, technical, organisational and financial aspects of e-learning:

a.   The didactic goals (e.g. enhancing the ability to learn independently, supplementary exercises, supporting working students, etc.) as well as the teaching and learning methods (e.g. e-learning only, blended learning, traditional courses with e-learning support, virtual classroom) shall be outlined.

b.   The relationship between e-learning, compulsory attendance periods and the individual tutoring of students shall be described.

c.   Methods of verifying whether the students have acquired knowledge and skills upon completion of an e-learning chapter shall be described.

d.   Steps for the integration of e-learning into the study programme and the development of the contents shall be described, taking into account didactic principles such as interactivity, visualisation, simulation, and exercises with automatic verification and feedback.

e.   The tools, technologies, platforms and teaching and learning environments shall be specified, taking into account the necessary system requirements.

f.   It shall be described how teachers and students are to be prepared for e-learning with respect to technical software and didactic elements.

g.   It shall be described how quality can be assessed and assured.

h.   The anticipated expenses for using e-learning shall be indicated in the costing. In this context, one-off costs (purchase and installation of technical equipment, training, etc.) as well as recurring costs (licence fees, content development, personnel, maintenance, etc.) shall be taken into account.

3.1.3   QUALITY ASSURANCE AGENCY FOR HIGHER EDUCATION (QAA) UNITED KINGDOM

In 1997, the Quality Assurance Agency for Higher Education (QAA) was established to provide an integrated quality assurance service for UK higher education. QAA is an independent body funded by subscriptions from UK universities and colleges of higher education, and through contracts with the main UK higher education funding bodies.
QAA mission is to safeguard the public interest in sound standards of higher education qualifications and to inform and encourage continuous improvement in the management of the quality of higher education.
QAA does this by working with higher education institutions to define academic standards and quality, and they carry out and publish reviews against these standards. More information are available at : :htpp://www.qaa.ac.uk.

The Code of practice for the assurance of academic quality and standards in higher education (the Code of practice) provides guidance on maintaining quality and standards for universities and colleges subscribing to QAA..

The overall Code and its 10 constituent sections were originally prepared by the Agency between 1998 and 2001 in response to the reports of the National Committee of Inquiry into Higher Education and its Scottish Committee (the Dearing and Garrick Reports). The Code supports the national arrangements within the UK for quality assurance in higher education. The Code identifies a comprehensive series of system wide principles (precepts) covering matters relating to the management of academic quality and standards in higher education. It provides an authoritative reference point for institutions as they consciously, actively and systematically assure the academic quality and standards of their programmes, awards and qualifications. The Code assumes that, taking into account principles and practices agreed UK-wide, each institution has its own systems for independent verification both of its quality and standards and of the effectiveness of its quality assurance systems. In developing the Code, extensive advice has been sought from a range of knowledgeable practitioners.

The QAA Code of Practice for the Assurance of Quality and Standards in Higher Education covers a separate section on eLearning . The section on collaborative provision and flexible and distributed learning, including e-learning, provides specific guidance on the expectations of the agency in relation to arrangements for distance education (please refer Annex 2).

3.1.3.1 Code of Practice for the Assurance of Academic Quality and Standards in Higher Education.

Collaborative provision and flexible and distributed learning (including e-learning) - September 2004, Part B:

♦   Aspects specific to flexible and distributed learning

♦   Introduction

♦   E-learning

♦   Delivery

♦   Learner support

♦   Assessment of students

3.1.3.2 QAA   Code   of   Practice
The precepts specific to flexible and distributed learning are as follows :

1   <u>Students should have access to:</u>
   ◊   documents that set out the respective responsibilities of the awarding institution and the programme presenter for the delivery of an FDL programme or element of study;
   ◊   descriptions of the component units or modules of an FDL programme or element of study, to show the intended learning outcomes and teaching, learning and assessment methods of the unit or module;

◊ a clear schedule for the delivery of their study materials and for assessment of their work.

2 The awarding institution,
whether or not working through a programme presenter, should ensure that students can be confident that:

◊ any FDL programme or element offered for study has had the reliability of its delivery system tested, and that contingency plans would come into operation in the event of the failure of the designed modes of delivery;

◊ the delivery system of an FDL programme or element of study delivered through e-learning methods is fit for its purpose, and has an appropriate availability and life expectancy;

◊ the delivery of any study materials direct to students remotely through, for example, e-learning methods or correspondence, is secure and reliable, and that there is a means of confirming its safe receipt;

◊ study materials, whether delivered through staff of a programme presenter or through web-based or other distribution channels, meet specified expectations of the awarding institution in respect of the quality of teaching and learning-support material for a programme or element of study leading to one of its awards;

◊ the educational aims and intended learning outcomes of a programme delivered through FDL arrangements are reviewed periodically for their continuing validity and relevance, making reference to the precepts of Section 7 of the Agency's Code on Programme approval, monitoring and review (2000), or any successor document.

3 Prospective students
should receive a clear and realistic explanation of the expectations placed upon them for study of the FDL programme or elements of study, and for the nature and extent of autonomous, collaborative and supported aspects of learning.

4 Students
should have access to:

◊ a schedule for any learner support available to them through timetabled activities, for example tutorial sessions or web-based conferences;

◊ clear and up-to-date information about the learning support available to them locally and remotely for their FDL programme or elements of study;

◊ documents that set out their own responsibilities as learners, and the commitments of the awarding institution and the support provider (if appropriate) for the support of an FDL programme or element of study.

5 Students
should have:

◊ from the outset of their study, an identified contact, either local or remote through email, telephone, fax or post, who can give them constructive feedback on academic performance and authoritative guidance on their academic progression;

◊   where appropriate, regular opportunities for inter-learner discussions about the programme, both to facilitate collaborative learning and to provide a basis for facilitating their participation in the quality assurance of the programme;

◊   appropriate opportunities to give formal feedback on their experience of the programme.

6   <u>The awarding institution,</u>
whether or not working through a support provider, should be able to ensure that students can be confident that:

◊   staff who provide support to learners on FDL programmes have appropriate skills, and receive appropriate training and development;

◊   support for learners, whether delivered through staff of a support provider or through web-based or other distribution channels, meets specified expectations of the awarding institution for the quality of learner support for a programme of study leading to one of its awards.

7   <u>Students</u>
should have access to:

◊   information on the ways in which their achievements will be judged, and the relative weighting of units, modules or elements of the programme in respect of assessment overall;

◊   timely formative assessment on their academic performance to provide a basis for individual constructive feedback and guidance, and to illustrate the awarding institution's expectations for summative assessment.

8   <u>The awarding institution</u>
whether or not working through a programme presenter or support provider, should ensure that students can be confident that:

◊   their assessed work is properly attributed to them, particularly in cases where the assessment is conducted through remote methods that might be vulnerable to interception or other interference;

◊   those with responsibility for assessment are capable of confirming that a student's assessed work is the original work of that student only, particularly in cases where the assessment is conducted through remote methods;

◊   any mechanisms, such as web-based methods or correspondence, for the transfer of their work directly to assessors, are secure and reliable, and that there is a means of proving or confirming the safe receipt of their work.

3.1.4   AQU: QUALITY ASSURANCE AGENCY FOR THE UNIVERSITY SYSTEM IN CATALONIA

The Quality Assurance Agency for the University System in Catalonia was founded on the 29 October 1996 within the legislative framework of a consortium with the aim of improving the quality of the Catalan university system . The Board of Directors of the consortium was formed by the rectors and presidents of the public liaison advisory committees of the Catalan state-funded universities (the University of Barcelona, the Autonomous University of Barcelona, the Technical University of Catalonia (UPC), the University Pompeu Fabra, the University of Girona, the University of Lleida and the

University Rovira i Virgili) and by the Autonomous Government of Catalonia, represented at that time by the Committee for Universities and Research.

The Agency was set up as an organisation with its own legal structure, independent of that of its members, and fully empowered to carry out its objectives in compliance with public law.
The aim of the Agency was to raise the standards and give impetus to the improvement of the Catalan university system through the mechanism of institutional quality assessment, based on previously established methodology. The Agency was also charged with the analysis of the results of the university system and with proposing ways of improving the services which the Catalan state-funded universities offer society.
 The consortium, which was the first state-funded agency, soon became well known in European and wider international circles.

The purpose of AQU Catalunya is the assessment, accreditation and certification of quality in the field of the universities and higher education centres in Catalunya. This purpose is constantly adapted to the social demands, to the quality requirements of university training, and to the continual improvement of their processes in the framework of the European Area of Higher Education.
In 2003 AQU published General guidelines for the assessment of services, installations and facilities for students.
The objective of these general guidelines is to provide guidance on the assessment of the whole range of services which a university places at the disposal of the students during the whole academic course to satisfy their multiple needs. The varied typology of the universities, study programmes, students and their geographical layout (integrated campuses, isolated centres, virtual campuses, etc.) make these general guidelines necessarily generic and each university, centre or related organisational branch is required to apply these guidelines in accordance with individual specifications.
The structure of these guidelines avoids a theoretical approach and provides the universities and external assessment bodies with tools of assessment which include practical considerations such as the comfort of the lecture rooms and compliance with safety regulations.

3.2 AGENCY FOR QUALITY EVALUATION AND UNIVERSITY ACCREDITATION OF ANDALUCÍA

The Agency for quality evaluation and University accreditation is an autonomous body of the Governing council of the Autonomus Community of Andalucía (Spain).
The Agency was established in 2003 (by the law 15/2003 Ley Andaluza de Universidades) and, in order to meet its objectives, the Agency has a legal personality/status and is independent from a financial view point.

The Andalusian Agency for quality evaluation and University accreditation pursuits the following aims:

♦   Apply the evaluation guidelines to the public university sector which have been established by the Andalusian University Council;

♦ Collaborate in promoting and supporting the ongoing evaluation of processes and results of teachers, researchers and manager in University

♦ Collaborate in promoting and supporting the development of internal evaluation system.

♦ Develop and enhance the processes of certification and accreditation of programmes, institutions and staff belonging to the HE Andalusian system.

♦ Provide information on the quality of the Andalusian HE sector

♦ Provide quality improvement plans following the results of the evaluation

♦ Provide type approval of its own criteria and methods within national and European institutions.

The majority of the activities conducted by the Agency are comprised within the Programmes designed for the evaluation of different actions of the higher education and research sector in Andalusia.

Currently the Andalusia Agency develops its activities by means of the following programmes:

♦ Accreditation of University staff

♦ Teachers/professors evaluation

♦ Institutional evaluation

♦ Evaluation of fringe benefits for University staff (e.g.professor, researchers..)

♦ Accreditation of University professors

♦ Research projects

♦ Other incentives to research

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CHAPTER 4.
PEER REVIEW/SELF ASSESSMENT WITHIN THE UNIVERSITIES COMMUNITIES

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Collaborative peer review has been used extensively in the education and training domain primarily to open up opportunities for educational establishments to learn how to teach more effectively, to practice new teaching techniques and approaches, to get regular feedback on their classroom performance, and to receive coaching from colleagues (Menges, 1985).

The orientation is therefore developmental rather than judgmental. Educational peer review typically focuses on "instructional events" occurring during delivery that should be critiqued by knowledgeable colleagues including:

♦   "settings" where teaching takes place and other physical factors affecting delivery;

♦   pedagogic procedures;

♦   use of language to inform, explain, persuade, and motivate;

♦   roles played by teacher and students as they interact;

♦   structure of the curriculum and interaction between different parts of it; learning outcomes. (Hart, 1987).

The following paragraphs presents a set of projects or initiatives which have adopted the methodology of peer review for assessing and improving university strategy toward ICT , eLearning and quality development.

4.1.   EUROPEAN   UNIVERSITY   ASSOCIATION: INSTITUTIONAL EVALUATION PROGRAMME

Launched in 1994 as a tool for strategic change, the Institutional Evaluation Programme is based on a self evaluation and external peer-review conducted by senior international institution leaders. Having evaluated over 150 universities in Europe and worldwide, the major benefits derived from universities are an increased strategic capacity and internal quality culture – two essential attributes for dealing with current and future challenges in higher education.

Since 2001, EUA has also carried out sector-wide eveluations to identify and make recommendations on the systemic challenges and the common issues shared by all institutions in a given sector.

The evaluations:

♦ take into account your institution's specific situation, goals and issues. The teams work with you and actors in your institution to develop recommendations that identify ways to reach your institutional goals and objectives.;

♦ focus on the institution as a whole and on strategic management. This is central in developing dynamic institutions;

♦ center on the self-evaluation pahse. This allow universities to se in motion process for change;

♦ are based on the notion of mutual learning and peer evaluation in a supportive, yet critical, context.

The Process

Based on your specific questions and the profile of your institution, EUA will send out a small team of four experts (three current or former rectors and vice-rectors, one secretary). The teams are knowledgeable, practiced and skilled. Every year, EUA inducts qualified new experts whom they distribute across all teams to maintain the quality of the process, add new perspectives and ensure the continuation of the programme.

The self-evaluation report that your institution prepares will create the background for two site visits by our expert team. The team will meet a cross-section of representatives from your institution to discuss the specifics of the decision-making process and structure as well as the internal quality process. On the basis of these discussions, they will produce an evaluation report that includes recommendations.

Why applying?

While the evaluation is focused on the institution as a whole, it is possible to select an additional focus, such as:

♦ research management;

♦ student support services;

♦ internationalisation policies;

♦ implementing Bologna process;

♦ working with stakeholders;

♦ governance structures.

The Evaluation Cycle

♦ **May**: Invitations to apply are sent to members.

♦ **August**: The institutions that have been selected for the coming round receive the guidelines for the self-evaluation.

♦ **September**: Introductory workshop for participating institutions.

♦ **June-February**: Organisation and production of the self-evaluation report.

♦ **December-March**: Preliminary visit by the evaluation team to get acquainted with the institution and to request additional information if needed.

♦ **March-June**: Evaluation visit and report.

Participation Fee

The cost of participating in the Institutional Review Programme is **30,000 Euro** for EUA members, payable at the beginning of the evaluation procedure (please note that the peer evaluators are not paid for their work).

4.2.   THE BENVIC PROJECT: SELF-ASSESSEMENT AND BENCHMARKING PROCESSES

The Benvic (Benchmarking of virtual campus) project (1999-2000) aimed at:

♦ develop, test and establish an educational approach to evaluation of "virtual campuses" experiences throughout Europe, particularly those involved in the Socrates ODL Programme;

♦ promote a collaborative network able to implement evaluation through comparison and benchmarking;

♦ develop a competence map related to the design and implementation of "virtual campuses";

♦ promote the new knowledge and approach made available by the project to the European Academic Community.

The BENVIC project's activity was the "Benchmarking of Virtual Campuses", and aimed to offer systems for evaluating "Virtual Learning Platforms" to decision makers that allowed them to improve their developments as well as become better acquainted with other platforms. Moreover, the final purpose of this evaluation approach was the establishment of quality criteria.

BENVIC Project
Benchmarking of Virtual Campuses

Process analysis

| Basis | Benchmarking principles | Areas of indicators | Defining indicators | Competence map |

Basis
- 5 case studies
+
- Methodological framework
+
- Virtual Campus definition

Benchmarking principles
- Virtual campus as a context
- Formative and summative approach
- Stimulate collaboration
- Cultural specifity
- Evolutionary approach
- Relate to a specific competence map
- Relate to sensitivity of stakeholders

Areas of indicators
1. Learner service
2. Learning resources
3. Teaching staff
4. Evaluation
5. Accessibility
6. Efficiency productivity (economical)
7. Technical resources
8. Institutional performance

Defining indicators
Interactivity
- Institutional perspective ↔ Learning perspective

Competence map
Functional tasks
- Propietorial competences
+
- Cross- job competences
+
- ODL competences

Benchmarking system

Having set up a general framework for benchmarking (case studies, basic principles of benchmarking, state of the art in the evaluation of open and flexible learning programmes, methodology and approach etc.) in the first phase of the project, the Consortium has worked for the last 12 months in the definition of a list of indicators and the evaluation of its usability by inviting different institutions to participate.

The different areas of activity of a Higher Education institution can be benchmarked through a set of indicators. From the identified indicators and processes a map of competence was constructed to gather together the basic criteria to be taken into account in any evaluation of virtual learning environments.

4.2.1   EVALUATION METHODOLOGY

In order to validate documents and as a first test of the system described above - not only the indicators list but also the whole process and the working methodology the Consortium has adopted – new institutions were invited to the Benvic club. They would test the system and results would be analysed, as a base for decision-making.

A *working seminar* was organised to inform interested institutions about the project. Several institutions contacted the Benvic Consortium, showing their interest in participating. These are the participants that were finally selected and contacted for the seminar.

These new participants were told about what could interest them in Benvic, what they could learn from participating and how to proceed.

Benvic could offer them:

♦   an established methodology and quality standards;

♦   to enhance the potential of VLES's;

♦   and guarantee the quality of education.

In participation they should expect:

♦   to be tested and evaluated, so that they gain knowledge about the stage of development of their own virtual campus and be able to go on working in a good direction;

♦   to be one of the institutions testing the system for the first time and become a reference of best practice;

♦   to contribute their own experience to the definition and creation of a system for the quality standards in ODL in Europe and the world;

♦   to work closely with institutions owning virtual campuses as educational platforms and learn from each other;

♦   to know at first hand how institutions are working on the idea of Virtual Campuses in Europe.

The evaluation methodology is based on new members testing the system. Evaluation have been made at three levels:

1)   *Case study level*

Interested members visit the BENVIC website where they are asked to fill in a short profile questionnaire.
In order to give a more detailed profile of the institution, the university completes a case study grid. At the same time, this document constitutes a refined profile of the institution. This case study, which will be made available to other institutions having joined the benchmarking club, will help universities and other higher education institutions to compare themselves with each other. It will be easier to situate the institution, thus facilitating further comparisons.

2)   *Indicators level*

In entering this phase, the organisation assesses its own performance with respect to various elements of the virtual campus, such as learning services and resources, teaching staff and technical resources. The indicators are rated: *not implemented at all – partially implemented – fully implemented* on a 0-2 scale. These indicators will allow the institution to see where it should place itself in the development of its virtual campus.

The same list of indicators allows the institution to be compared. In fact, it is not up to the BENVIC management to compare the different universities. The comparison is made by the institutions themselves using the list of indicators of what represents - in a best case scenario - the ideal virtual campus.

In order to foster the mutual learning aspect of the BENVIC exercise, the project management offers to provide the institutions/universities with the names of best performers. If an institution wants to improve its performance in a specific field, it is welcome to get in touch with the project management who will provide the institution with the name of the best performer in that field.
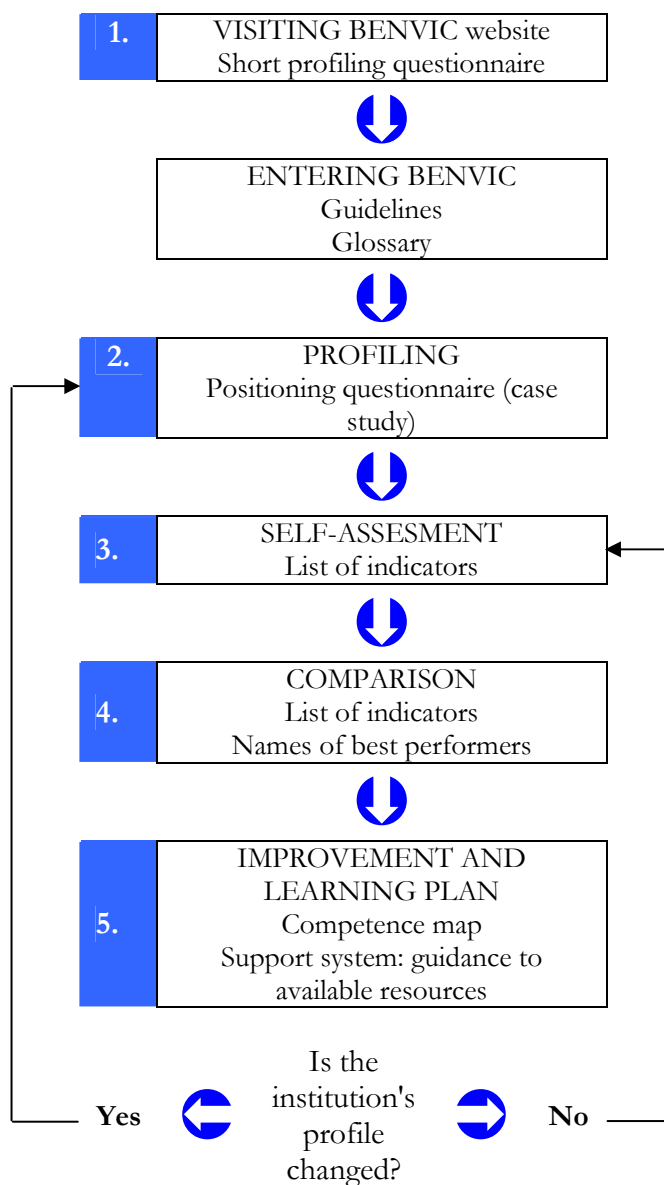
3) *Map of competences level*

Having done the comparison with the list of indicators and, if possible, with other institutions, the institution can then write an improvement and learning plan. By this point the institution should know exactly what areas of the virtual campus need improving. The competence map should help to draw a coherent improvement plan.

In addition to the competence map, a support system giving guidance to available resources is being set up, such as the Nineveh knowledge base (**www.nineveh.polito.it**) or the EUA formative evaluations.

As soon as an improved system is in place, the institution can re-start the benchmarking exercise by going back to the previous phases:
◊ profiling the institution by describing their own case study is appropriate when the institution considers that the changes implemented had considerable effects on the profile of the institution. The organisation fills in this grid in order to find out how improvements had an effect on its general profile;
◊ answering the list of indicators another time should lead to different ratings being reached, and thus clearly demonstrate the improvements the institutions have attained and show the areas where there is still room for improvement.

1.	VISITING BENVIC website Short profiling questionnaire

⬇

	ENTERING BENVIC Guidelines Glossary

⬇

2.	PROFILING Positioning questionnaire (case study)

⬇

3.	SELF-ASSESMENT List of indicators

⬇

4.	COMPARISON List of indicators Names of best performers

⬇

5.	IMPROVEMENT AND LEARNING PLAN Competence map Support system: guidance to available resources

Yes ⬅ Is the institution's profile changed? ➡ **No**

4.3.   THE MASSIVE PROJECT : PEER REVIEW MODEL

As presented in the Chapter 1 (paragraph. 1.6) MASSIVE project was aimed at designing a model of mutual support services for European traditional universities to successfully implement the virtual component of teaching. Within the MASSIVE project, a peer review model/service was designed and tested.

4.3.1   THE AIM OF PEER REVIEWS

The purpose of the Peer Review visits is to explore, with colleagues in participating universities which have agreed to participate, the developments in up to six aspects of the use of e-learning within the university. These aspects (areas) are:

1.   University strategies in the integration of ICT in teaching & learning

2.   Evolution of university libraries in their support of e-learning

3.   Management of IPR of digital learning materials

4.   Support for teaching staff in their use of e-learning

5.   Support for students for e-learning

6.   Design of online courses.

4.3.2   ORGANISATION OF THE PEER REVIEW

Each visit needed 2 full working days.

The period of the prototype visits was from March to June 2006 inclusive to allow enough time to accommodate the 6 visits, write reports before the summer vacations etc..

However, the Peer Review takes place in three stages:

♦   A Preparatory stage (countdown: one month before the visit) – this entails gathering background information about an institution, and its current and future planned use of e-learning. An important part of this information gathering is the 'Positioning Questionnaire', which have to be completed by someone in the University who is well informed about these issues, and sent back to the MASSIVE team prior to the site visit. Relevant documents that help us build a picture of how your University approaches e-learning are requested. These also sent to the MASSIVE team prior to the site visit.

♦   A Site Visit (2 working days) – which involves a collaborative dialogue between the MASSIVE peer reviewers and a range of representatives of the University. The visit provides an opportunity for the reviewers to gather more information, through interviews and observation, and for both reviewers and 'host institution' to explore key issues relevant to e-learning strategies.

♦   An Analysis and Reporting stage (one month after the visit))– on the basis of the data gathered from the preceding stages, this final part of the Review process will

focus on the production of recommendations arrived at through collaborative reflection between the MASSIVE team and the hosting institution.

4.3.3   PARTICIPATION AND ROLES IN THE PEER REVIEW

The model has been designed for 4 persons attending each peer review visit: a representative from the host University institution, a peer review chair and 1—2 additional team members according to the thematic coverage of the peer review requested by the host university.

4.3.4   THE ROLE OF HOST UNIVERSITIES DURING THIS PEER REVIEW PROCESS

Host Universities must:

♦   ensure that university senior management are aware of, and involved in, review process;

♦   provide team in advance with documentary evidence to read – or summaries if language problems;

♦   help with choice of accommodation and travel if needed (hotel names, maps, etc.);

♦   provide visits to university facilities if appropriate;

♦   provide room and services for visiting team – help with internet access for example;

♦   arrange for team to meet sample of staff and students of university so that they can discuss service area provision with them, and brief these individuals as to the reason for and process of the visit;

♦   help with provision of translations where necessary of vital documentation – this is clearly onerous and so will need to be negotiated between the visit team and the host..

4.3.5   THE ROLE OF PEER REVIEWERS DURING THIS PEER REVIEW PROCESS

Visiting team of peer reviewers must:

♦   ensure that host university is aware of team composition and arrive/leave times;

♦   ensure that host university has questions well in advance and engage with them on any concerns and queries;

♦   carry out visit in an informal, flexible and friendly manner – this is not a criticism process but a supportive / formative process – in English this is called 'critical friend';

♦   good and extensive notes will need to be taken – it may be useful to record all meetings and interviews for later reference – to ensure an accurate report is written. Responsibility for this should be decided within the team;

- ♦ in the early visits, the instruments may need to be modified and refined for later visits to improve their effectiveness;

- ♦ at the end of the visit give a verbal summary of findings to close the visit;

- ♦ write a report from the visit within 4 weeks of visit, send a draft to the host university for factual corrections within 2 weeks, and then complete final version of report within 4 more weeks;

- ♦ participate in a self evaluation process in the early visits, the instruments may need to be modified and refined for later visits to improve their effectiveness.

CHAPTER 5.
ACCREDITATION AND RANKING BY INDEPENDENT BODY AND ASSOCIATIONS

Considerably less work as been done so far in Europe in the concrete area of accreditation of ICT-based learning. Developing specific criteria and guidelines for certification is the largely unknown territory which is explored in this chapter.

Accreditation of ICT-based learning interventions is - and has to be - at the crossroads of:

♦   improving the way European universities adapt and integrate ICT in their strategies;

♦   enhancing the overall culture of quality in eLearning in institutions;

♦   certifying pedagogic and technological approaches at the programme level.

Eight different accreditation and certification initiatives are profiled in this chapter.

5.1.   ACCREDITATION INITIATIVES

5.1.1   OVERVIEW

Programme certification

A number of accreditation agencies focus on programme certification and can be found in Europe as well as elsewhere in the world:

♦   the ASTD Certification Institute offers eLearning courseware certification designed to evaluate the instructional design and usability factors of ICT based courses;

♦   the Australian Computer Society (ACS) is committed to the beneficial use of ICT and its Accreditation Manual for Universities elaborates on standards for course structure and content, course resources and quality process;

♦   the International Association for Distance Learning (IADL) with offices in the UK offers very detailed standards for quality on-line courses clustered around four categories : technology standards, usability standards, accessibility standards and instructional design standards.

An entirely separate approach is taken by the media which produce rankings and listings of distance learning programmes. A short overview is given on the criteria used by the Financial Times for its distance learning MBA programmes.

Institutional Accreditation

Accreditation agencies which provide institutional assessment will also cover the ICT-based learning in their overall institutional assessment.

The Quality Assurance Agency (QAA) in the UK defines academic standards and quality and offers a "Code of Practice for the Assurance of Academic Quality and Standards in Higher Education", which is summarized in this report in the Chapter 3.

Furthermore, the accreditation of an institutional provider by EQUIS or comparable agencies cover all the learning initiatives provided by the university. In particular, EQUIS has a separate policy on the provision of off-campus programmes and where relevant, EQUIS focuses on the programme delivery modes, the integration of new technologies, pedagogical resources, and so forth.

The International Assembly for Collegiate Business Education (IACBE) is also a specialized accrediting body for business and business-related degree programmes at the undergraduate and graduate levels in colleges and universities.

Beyond Europe

Whilst the core of this project is on quality improvement in European higher education institutions, inspiration can be found in other parts of the world.

For instance, in the United States, the accreditation of institutions of higher education is not conducted by the government. Instead, it is a voluntary process that is implemented by private non-governmental accrediting agencies. Both regional and national accrediting agencies hold distance and ICT-based learning institutions to the same high standards as other colleges and universities. At the same time, they have recognized that the specific standards which are applied to "brick and mortar" institutions need to be adapted for distance learning. For example, one of the fundamental distance learning standards looks at faculty support and whether they have the resources, facilities and equipment needed to engage in effective teaching at a distance. Furthermore, the Council for Higher Education Accreditation (CHEA) published its report 'Accreditation and Assuring Quality in Distance Learning' which is covered later in this report.

In parallel, a distinct body has been designed in order to award accreditation to open and distance learning schools. Known as the Distance Learning and Education Council (DLEC), which is also profiled in this report. The essence of the DETC Accreditation Handbook is highlighted in this report and also attached as an Annex 3.

The Institute of Electrical and Electronics Engineers (IEEE) plays an active role in accreditation in the domain of ICT based engineering education.

5.1.2   ASTD CERTIFICATION INSTITUTE

The ASTD Certification Institute offers the **E-Learning Courseware Certification**.
This certification has been designed to evaluate the instructional design and usability factors of asynchronous web-based and multimedia courseware.

Started in 1944, ASTD (American Society for Training & Development) is the world's largest association dedicated to workplace learning and performance professionals. ASTD's members come from more than 100 countries and connect locally in 140 U.S. chapters and 24 Global Networks.
More information can be found at : www.astd.org

E-Learning Certification Standards

These standards are used to evaluate the courseware as provided by the vendor. They are applied independent of the User's Learning Management System (LMS).

Cluster One - Interface Standards

These standards address the relationship between the learner and the courseware itself:

- Standard 1. Orientation

- Standard 2. Tracking Features

- Standard 3. Required Navigational Functions

- Standard 4. Optional Navigational Devices

- Standard 5. Operational Support

Cluster Two - Compatibility Standards

These standards address the relationship between the courseware, the operating system, and the related applications:

- Standard 6. Installation and Initial Launching

- Standard 7. Set Up

- Standard 8. Subsequent Launching

- Standard 9. Uninstalling

Cluster Three - Production Quality Standards

These standards examine the quality of the courseware's text, graphics, grammar and visual presentation:

♦   Standard 10. Legibility of Text and Graphics

♦   Standard 11. Formatting and Internal Consistency

In order to meet the requirements for certification, courseware would need to meet the cut-off score for each non-substitutable standard as well as for 5 of the 8 substitutable standards in clusters 1 - 3.

Cluster Four - Instructional Design Standards

These standards examine the relationship between the course purpose, objectives, instructional content, instructional methods, and the learner:

♦   Standard 12. Expression of Course Purpose

♦   Standard 13. Presence of Instructional Objectives

♦   Standard 14. Consistency of Objectives With Course Content

♦   Standard 15. Presentation and Demonstration

♦   Standard 16. Facilitation of Learning

♦   Standard 17. Practice with Feedback

♦   Standard 18. Engagement Techniques

♦   Standard 19. Assessment of Learning

Below is a more detailed description of the ASTD E-learning certification standards

♦   **Standard 1 - Orientation (Substitutable)**. The courseware provides orientation display features that indicate the learner's location within the course content (i.e., "where the learner is now").

♦   **Standard 2 - Tracking Features (Substitutable)**. The courseware provides functional tracking features that accurately document the course sections, units, modules, etc. that have been accessed or completed by the learner (i.e., "where the learner has been").

♦   **Standard 3 - Required Navigational Functions (Non-Substitutable)**. The courseware allows the learner to start, exit, move forward, move backward, save, and return to the main menu or top level of the course when desired or necessary.

♦   **Standard 4 - Optional Navigational Devices (Substitutable)**. The courseware provides navigational devices for the purpose of accessing additional information, changing the organization of the course content, and marking locations within the courseware.

♦   **Standard 5 - Operational Support (Substitutable)**. The courseware provides operational support to learners on a variety of subjects including navigation, technical assistance, and instructions for special or proprietary courseware functions.

♦ **Standard 6 - Installation and Initial Launching (Non-Substitutable)**. The courseware installs and/or launches all necessary components within the operating environment without requiring professional technical assistance, and with all additional required software indicated.

♦ **Standard 7 - Set Up (Substitutable)**. The courseware provides the means for registering demographic information, system configurations, and learning preferences without requiring professional technical assistance.

♦ **Standard 8 - Subsequent Launching (Substitutable)**. The courseware launches every time, allows the learner to return to his or her previous location, and saves previous accomplishments without requiring professional technical assistance.

♦ **Standard 9 - Uninstalling (Substitutable)**. All assets related to the courseware can be removed through an "uninstall" function that the learner can initiate without requiring professional technical assistance.

♦ **Standard 10 - Legibility of Text and Graphics (Non-Substitutable)**. The course employs text and graphics that are legible and clearly defined on a . commonly used (800 x 600 resolution) computer screen.

♦ **Standard 11 - Formatting and Internal Consistency (Substitutable)**. The course exhibits appropriate language, formatting, and internal consistency to minimize distractions from learning.

♦ **Standard 12 - Expression of Course Purpose (Substitutable)**. Course purpose explicitly describes the intended outcome, target audience, and scope of the course.

♦ **Standard 13 - Presence of Instructional Objectives (Substitutable)**. Course instructional objectives are clearly stated or shown and describe the specific skills or knowledge the learner will acquire in each unit of the course.

♦ **Standard 14 - Consistency of Objectives With Course Content (Substitutable)**. The content of the course is sufficient in substance and detail and is consistent with course objectives.

♦ **Standard 15 - Presentation and Demonstration (Non-Substitutable)**. Course uses varied (two or more) instructional methods to support the objectives and provide new information to the learner.

♦ **Standard 16 - Facilitation of Learning (Substitutable)**. The course uses varied instructional methods and guidance to facilitate the learner's process of internalizing and synthesizing new information.

♦ **Standard 17 - Practice With Feedback (Non-Substitutable)**. The course provides practice opportunities, with feedback, that allow learners to apply their newly acquired knowledge or skills.

♦ **Standard 18 - Engagement Techniques (Substitutable)**. The course contains varied engagement techniques that are used to enhance and augment the learning experience.

♦ **Standard 19 - Assessment of Learning (Substitutable)**. The course includes valid assessments that provide feedback to the learner.

A more detailed description is covered in Annex 4. More information can be found on the ASTD website:
http://workflow.ecc-astdinstitute.org/index.cfm?sc=help&screen_name=cert_view

5.1.3 AUSTRALIAN COMPUTER SOCIETY - ACS

The Australian Computer Society (ACS) is the recognized association for Information & Communications Technology (ICT) professionals, attracting a large and active membership from all levels of the ICT industry. A member of the Australian Council of Professions, the Australian Computer Society is the public voice of the ICT profession and the guardian of professional ethics and standards in the ICT industry, with a commitment to the wider community to ensure the beneficial use of information and communication technologies.

The Society was formed in 1966 and has its national office in Sydney.
More information is available from: http://www1.acs.org.au/index.cfm
ACS has accredited courses in 37 Australian universities.

To meet these objectives, the Society seeks to work in cooperation with Australia's higher education institutions towards the professional accreditation of ICT courses. These courses are assessed based on the suitability of graduates as ICT professionals through:

♦ an assessment of the content and structure of the course against the Society's core body of knowledge;

♦ an assessment of the staff and educational resources utilised in the delivery of the course;

♦ an assessment of the quality assurance processes that the university has in place, especially in regard to admission standards, assessment and the ability of the profession to influence the course content, structure and teaching methodology.

The ACS Accreditation Manual for Universities

The ACS Accreditation Manual for Universities outlines the main criteria and standards can be clustered around:

♦ Course Structure and Content
  ◊ Common Requirements: course objectives, graduate profile, requirement for completion, structure, ICT content, syllabuses, assessment methods
  ◊ The Core Body of Knowledge (CBOK):
    - Generic requirements: interpersonal communication, professional practice, social implications, project management, quality principles
    - ICT specific: data structure, program design & implementation, SW engineering & methodologies, information security, conceptual modelling, systems analysis and design, database management, computer architecture, systems software, data networks, discrete mathematics
  ◊ Knowledge Requirements for Course Accreditation

- Course Resources
  ◊ Academic Staff Resources
  ◊ Computing Facilities and Support Staff
  ◊ Accommodation and Facilities
  ◊ Library Materials
  ◊ External and Off-shore Campuses

- Quality Processes
  Practitioner Input and Advisory Mechanisms
  The Accreditation Process consists of the following steps:
  ◊ Appointment of Accreditation Panel
  ◊ Review of Application
  ◊ Accreditation Visit
  ◊ Meeting with Senior Staff
  ◊ Meeting with Teaching Staff
  ◊ Meeting with Students and Graduates
  ◊ Lunch
  ◊ Final Consultation
  ◊ Post Visit Events

The ACS Accreditation Manual for Universities further contains:

- Recommendation Options

- Conditions of Accreditation

- Appeals Against Recommendation

- Significant Structural Changes

- Comment on Policy and Procedures

The full document can be consulted at:
http://www.acs.org.au/accreditation/accreditationmanual.doc

5.1.4   COUNCIL FOR HIGHER EDUCATION ACCREDITATION - CHEA

The Council for Higher Education Accreditation (CHEA) is a non-governmental coordinating agency that recognizes accrediting agencies in the United States and helps to coordinate policy and research on accreditation issues. They also maintain a list of national and regional accrediting agencies that have been evaluated and deemed to meet high quality standards.

CHEA is based in Washington, D.C. in the U.S.A. and is an association of 3,000 degree granting colleges and universities. CHEA has recognised 60 institutional and programme accrediting organisations. More information at: www.chea.org.

The CHEA Monograph Series 2002, number 1, "Accreditation and Assuring Quality in Distance Learning" elaborates on these specific standards.

Accreditation and Assuring Quality in Distance Learning

This report describes the scope and impact of distance learning on higher education and identifies the primary challenges that distance learning poses for accreditation.

Data from a variety of sources show that 5,655 institutions have been accredited by the 17 regional and national accreditors. Of these institutions, 1,979 offer a form of distance-delivered learning programmes or courses, some of which lead to degree acquisition.

Standards, guidelines and policies to determine academic quality are in place to evaluate the various elements of distance learning.

Accrediting organisations routinely review seven key areas of institutional activity when examining the quality of distance learning:

♦ Institutional mission

♦ Institutional organisational structure

♦ Institutional resources

♦ Curriculum and instruction

♦ Faculty support

♦ Student support

♦ Student learning outcomes

Assuring quality in distance learning presents three major challenges to accreditation, those of: the alternative design of instruction, the alternative providers of education, and the expanded focus on training.

Accrediting organizations examine alternative instructional designs with a particular focus on the curriculum and instruction, the faculty support, the student support, and the student learning outcomes.

5.1.5   DISTANCE EDUCATION AND TRAINING COUNCIL - DETC

The Distance Education and Training Council (DETC) is the largest accrediting agency in the U.S.A. to focus solely on distance learning colleges.

DETC is based in Washington, D.C. in the U.S.A. and was founded in 1926 as the National Home Study Council. Its name was changed to DETC in 1994.
The scope of the DETC Accrediting Commission is the accreditation of institutions offering programmes primarily by means of distance education up through the first professional degree level. Its mission is to promote through standard-setting, evaluation, and consultation processes, the development and maintenance of high educational and ethical standards for education and training programs delivered through distance learning. The DETC Accrediting Commission identifies and accredits distance education and training institutions that have attained and maintained the standards deemed necessary to operate at a minimum level of quality.

The Distance Education and Training Council (DETC) has been the standard-setting agency for correspondence study and distance education institutions since it was established in 1926. Its purpose was, and still is today, "to foster and preserve high quality, educationally sound and widely accepted distance education and independent learning institutions."

A section of the DETC Accreditation Handbook 2007 is attached in Annex 3; namely, the DETC Accreditation Standards.

The DETC Accreditation Standards cover:

♦   Institution mission and objectives

♦   Educational program objectives, curricula and materials

♦   Educational services

♦   Student services

♦   Student achievement and satisfaction

♦   Qualifications of owners, governing board members, administrators, faculty and staff

♦   Admission practices and enrolment agreements

♦   Advertising, promotional literature and recruitment personnel

♦   Financial responsibility

♦   Tuition policies, collection procedures and refunds

♦   Plant, equipment and record protection

♦   Research and self-improvement

DETC Accreditation Standards

These Accreditation Standards serve as benchmarks in helping the institution's staff and faculty evaluate important aspects of their institution's programs.

Accredited distance education institutions possess the following characteristics:

I.   INSTITUTION MISSION AND OBJECTIVES

A.   Description of the Mission and Objectives
The institution has a mission statement that includes its general purpose and is supported by specific, clearly defined objectives.

B.   Review and Publication of the Mission Statement
The instructors/faculty, administration, governing board, and institutional advisory committees, if the institution has a governing board and advisory committee(s), regularly review the mission statement and objectives. The current mission statement is publicly available and is used consistently in institutional publicity.

C.   Implementation of the Mission and Objectives
The institution can demonstrate that it is effectively carrying out its mission and attaining its objectives.

II.   EDUCATIONAL PROGRAM OBJECTIVES, CURRICULA, AND MATERIALS

A.   Description of Program Objectives
Educational program objectives are clearly defined and simply stated. They indicate the benefitsfor reasonably diligent students. The character, nature, quality, value, source of the instruction, and educational services that are used to help students achieve the objectives are set forth in language understood by the types of students enrolled. If a program prepares for an occupation, field of occupations, or vocation, the objectives clearly state the types of occupations for which preparation is given.

B.   Appropriate Program Objectives
The program objectives must be reasonably attainable through electronically delivered, online or other methods of distance study. Appropriate objectives include the development of skills, providing job-related training, the imparting of knowledge and information, the training in the application of knowledge and skills, and the development of desirable habits and attitudes. Evaluation of the program is based on the announced objectives and the success with which students achieve the objectives.

C.   Comprehensive Curriculum1
The curriculum is sufficiently comprehensive for students to achieve the stated program objectives, and its content is supported by sound research and practice.

D.   Up-to-Date Curriculum
The curriculum/curricula reflect(s) current knowledge and practice. Effective procedures are used continuously to keep it/them up-to-date.

E.   Comprehensive and Up-to-Date Instructional Materials2
Instructional materials are sufficiently comprehensive to enable students to achieve the announced program objectives. The instructional materials are accurate and reflect current knowledge and practice and are regularly reviewed and revised.

F.   Examinations and Other Assessments
Examinations and other assessment techniques adequately measure achievement of the stated learning objectives and outcomes.

G.   Authorship
Qualified persons competent in distance study techniques and in their subjects or fields develop the curriculum content and prepare instructional materials.
1 curriculum is the program of instruction
2 instructional materials are the components that make up the curriculum or program of instruction

H. Organization of Instructional Materials
The organization and presentation of the instructional materials are in accord with sound principles of learning.

I. Presentation of Instructional Materials
The instructional materials are appropriately presented. Written materials are legibly reproduced, well manufactured, suitably bound, and attractive in layout and format.

J. Reading Level
The reading difficulty of the instructional materials is keyed to the reading competence of students in the program.

K. Study Instructions
Instructions and suggestions on how to study and how to use the instructional materials assist students to learn effectively and efficiently.

L. Educational Media and Learning Resources
The instructor(s)/faculty for the program make effective use of appropriate teaching aids and learning resources, including educational media and supplemental instructional aids.

III. EDUCATIONAL SERVICES

A. Student Inquiries and Submissions
Relevant student inquiries are welcome and are answered promptly and thoroughly. Accurate assessment, correction services, and counseling by instructors/faculty are provided for assignments/lessons and examinations. The institution must publish its academic grading policies or assignment marking system, and apply them with fairness and consistency.

B. Individual Differences
Provisions are made to meet the individual differences of students and to provide counseling and guidance, as required, to assist students to satisfy institutional and program requirements, to achieve required program objectives and individual course learning outcomes, and to achieve their educational goals.

C. Handling Unsatisfactory Student Progress
Students who are unable to make satisfactory progress through the program are encouraged to continue until they either show inability to make satisfactory progress or demonstrate satisfactory progress.

D. Encouragement of Students
An active program is followed to encourage students to start, continue, and finish the program in which they have enrolled, if continuing and finishing are the student's goals.

E. Student Evaluation of Courses
Reactions of students are systematically sought as one basis for evaluating and improving instructional materials, the delivery of instruction, and educational services.

F. Appropriate Technology
The institution uses appropriate technology to enhance instructional and educational services.

G. Resident Training
Resident training should supplement the electronically delivered, online or other distance study method whenever it is necessary to attain the stated institutional and program objectives and intended student learning outcomes.

IV. STUDENT SERVICES

A. Assessment Services
Minimum student assessment services are guided by grading policies and a marking system that includes prompt return of accurately, fairly, and consistently graded assessments as well as necessary counseling by the instructor/faculty or qualified staff member.

B. Student Records
Essential student records are adequately maintained.

C. Counseling, Employment and Alumni Services
Competent counseling is available to students on request. When offered, employment assistance and other services for alumni are accurately and appropriately presented.

V. STUDENT ACHIEVEMENT AND SATISFACTION

A. Achievement of Student Learning Outcomes and Benefits
The institution demonstrates that students achieve learning outcomes that are appropriate to its mission and to the rigor and depth of the degrees, diplomas or certificates offered. When specific benefits for a course or program are identified, the institution provides evidence that documents that the graduates have attained the benefits.

B. Student Satisfaction
The institution documents that students are satisfied with the instructional and educational services provided.

C. Progress Through the Program
The institution documents that students complete their studies at rates that compare favorably to those of courses/programs offered by programs offered by similar DETC-accredited institutions; "compares favorably" means each program's graduation rate falls within 15 points of the mean for courses/programs at similar DETC institutions.

VI.   QUALIFICATIONS OF INSTITUTION, OWNERS, GOVERNING BOARD MEMBERS, ADMINISTRATORS, INSTRUCTORS/FACULTY, AND STAFF)

A.   Institution, Owners, Governing Board Members, and Administrators
The institution, institution's owners, governing board members, and administrators possess sound reputations and show a record of integrity and ethical conduct in their professional activities, business operations and relations. The Chief Executive Officer (CEO) and institution administrators possess appropriate qualifications and experience for their positions and roles and have demonstrated the ability to direct institutional operations successfully. The governing board members are knowledgeable and experienced in one or more aspects of educational administration, finance, teaching/learning, and distance study.

B.   Educational Director
A qualified person serves as the educational director or chief academic officer. This person has overall administrative responsibilities for the educational program(s) and a policy-making voice in advertising, sales, and collections.

C.   Department Heads
In large institutions, qualified department heads or persons with similar titles are delegated educational, editorial, and research responsibilities within departmental subject fields.

D.   Instructors/Faculty
The institution has a sufficient number of qualified instructors/faculty to give individualized instructional service to each student. The institution maintains files containing the resumes and official transcripts of its instructors/faculty.

E.   Professional Growth
An institution demonstrates its interest in improving instruction through upgrading faculty and staff. Faculty and staff are encouraged to become members of professional organizations, to review and apply relevant research, to pursue continuing education or training in their respective fields, and to enhance their skills in developing and using electronically delivered, online, or other forms of distance study.

VII. ADMISSION PRACTICES AND ENROLLMENT AGREEMENTS

A. Admission Practices
The admissions policies, requirements, and practices of the institution fully conform to DETC Business Standard II B.

B. Enrollments Agreements (Contracts)
The written enrollment agreement and/or other written enrollment documents specify clearly the nature and scope of the program, the services and obligations of the institution, and the responsibilities, obligations, financial and otherwise, of the student. Any changes in tuition, fees, and program policies and procedures must be made applicable to all future enrollees, not those currently enrolled. The institution must use a written enrollment agreement/contract that conforms to the provisions of DETC Business Standards II. A. and II. B. Students must be given copies of these written agreements/contracts and/or other written documents.

VIII. ADVERTISING, PROMOTIONAL LITERATURE, AND RECRUITMENT PERSONNEL

A. Advertising and Promotion
All advertising, promotional and recruitment activities of the institution fully conform to DETC Business Standard I.A. and B. and to this accreditation standard.

B. Control of Student Recruitment Personnel
The institution's policies and practices in the hiring, training, monitoring, managing, and evaluating of all sales or recruiting personnel fully conform to DETC Business Standard II. C. and to this accreditation standard.

IX. FINANCIAL RESPONSIBILITY

A. Financial Practices
The institution shows, by complete, comparative financial statements covering its two most recent fiscal years, that it is financially responsible and that it can meet its financial obligations to provide instruction and service to its students. (Financial statements must be prepared "in conformity with generally accepted accounting principles.")

B. Demonstrated Operation
In all respects, all institutions must document continuous sound and ethical operations. Applicant institutions must document two* continuous years of sound and ethical operation as a bona fide electronically delivered, online or other delivery method of distance study (*one year if the parent company is accredited by another accrediting agency that is recognized by either the U.S. Department of Education or the Council for Higher Education Accreditation). This documentation shall show that the name being used by the school is free from any association with activity that could damage the standing of the accrediting process, such as illegal actions, unethical conduct or abuse of consumers.

X.   TUITION POLICIES, COLLECTION PROCEDURES, AND REFUNDS

A.   Tuition Policies
Tuition policies are in keeping with the provisions of the DETC Business Standards Section III.A.

B.   Tuition Collection Procedures
Tuition collection practices and procedures are fair. They encourage the progress of students and seek to retain their good will. The institution exercises its right to protect its finances through collection practices in keeping with sound and ethical business standards. Such practices take into account the comparable rights and interests of the student.

C.   Tuition Refund Policies
The institution recognizes that there are legitimate reasons why enrolled students may not be able to complete their programs with benefit to themselves. Accordingly, the institution has a policy for equitable tuition adjustments or refunds in such cases. Records are maintained on tuition refunds and enrollment cancellations to provide a reference source for management analysis

XI.   PLANT, EQUIPMENT, AND RECORD PROTECTION

A.   Plant and Equipment
Buildings, workspace, and equipment comply with local fire, building, health, and safety regulations and are adequately equipped to handle the educational program(s) of the institution.

B.   Record Protection
Institutional financial and administrative records and students' educational records are maintained in a reasonably accessible place and are adequately protected as long as they are likely to be needed. Protection may be by: (1) an active fire suppression system, or (2) with passive protection using two-hour rated files or vaults, or (3) by using off-site back up files. Other records are maintained in accordance with current educational, administrative, business, and legal practices.

XII. RESEARCH AND SELF-IMPROVEMENT

A.   Planning and Evaluation
An accredited institution has a written plan that is designed to identify internal and external trends and patterns, optimize opportunities, address challenges, reflect on achievements and maintain quality. The planning enables the institution to improve services to students, ensure the professional growth of its instructors/ faculty and staff, and provide for the long-term quality and growth of the institution.

B.   esearch and Self-Improvement
An accredited institution shows evidence of continuous progress and of effort to improve operations and educational offerings and services. Sound research procedures and techniques are used to measure how effectively the stated institutional and program objectives are being met.

More information can also be found at: www.detc.org

5.1.6　EFMD CEL ACCREDITATION

The EFMD CEL Accreditation scheme is run by the EFMD; in partnership with the Swiss Centre for Innovations in Learning (SCIL) at the University of St. Gallen, and Spirus Applied Learning Solutions AG.

So far 6 technology-enhanced learning programmes have received CEL accreditation.

♦　Online MBA Programme of the University of Liverpool, UK

♦　Executive MBA, KMI - Kavrakoglu Management Institute, Turkey

♦　Master's Degree in Distance Education, University of Maryland University College (UMUC), USA

♦　L'Oréal e-Strat Challenge Business Game, L'Oreal, France

♦　MBA Programme, U21 Global, Singapore

♦　Professional Diploma in Management, Open University Business School, UK

♦　The Job Family Development Program, Vehicle Electronics, Volkswagen Coaching GmbH, Germany

The uniqueness of EFMD CEL is characterized by two aspects:

♦　First, EFMD CEL focuses on programmes in management education and does not just focus on learning software products by giving a software criteria catalogue.

♦　Secondly, the quality framework represents a conclusive system of relevant factors based on substantial research.

Based on this research, a set of criteria was isolated and clustered into the following dimensions:

♦　Programme Strategy takes up questions like: Are the main characteristics of the programme transparent for all interested parties? What (added) value does the programme provide espe¬cially by integrating technology-enhanced learning components?

♦　Pedagogy covers all aspects of the learning and teaching process and addresses questions such as: What type of learning environments does the programme consist of? What is the (added) value of the learning processes supported by technology?

♦　Economics involves all facets related to efficiency in the use of resources. The main question is: Are the resources in terms of funds and competencies efficiently used?

♦　Organisation deals with the question: Are the organisational measures in running the pro¬gramme adequate to meet the programme's underlying objectives?

♦　Technology addressing the question: Is the functionality of the technology implemented ade¬quate to meet the programme's underlying objectives?

♦　Culture looks into the facet: Are the cultural factors of change and innovation considered adequately?

These dimensions are the main categories of a systemic view on quality development within technology-enhanced programmes. All of these dimensions are furnished with concrete criteria, each of which is part of a coherent system.

CEL Quality Criteria Overview

PROGRAMME PROFILE

♦   The objectives of the programme are explicitly enumerated and consistent with and integrated into an overall strategy of institutional development and quality improvement.

♦   The target group of the programme is clearly defined.

♦   The staff which designs, manages, runs and evaluates the programme is appropriately qualified for carrying out their responsibilities. This involves mainly the programme managers, authors, e-tutors, e-moderators, and quality managers.

♦   The students/participants are provided with the relevant programme information prior to the start of the programme

PEDAGOGY

♦   The programme's learning objectives are clearly defined and conform to the respective professional pedagogical standards.

♦   The pedagogical and strategic (added) value of technology-enhanced learning within the programme is explained.

♦   The structure of the programme allows for a diversity of learning and teaching methods.

♦   Student/participant interaction with the teaching staff, other students/participants and/or interactive learning software is an essential characteristic of the programme and is facilitated through a variety of ways.

♦   Content making use of technology-enhanced learning is integrated into the programme's curriculum and assessment system.

♦   There are principles / guidelines regarding the minimum standards for course development and design as well as for the use of third-party contents.

♦   Instructional materials (e. g. educational software) are reviewed periodically to ensure they meet the programme's objectives and standards.

♦   Feedback on both the student/participant assignments and questions is constructive and provided in a timely manner.

♦   The relationship between the learning objectives, assignments and assessments follows a coherent framework.

♦   Assessments follow the respective professional standards and are valid to the learning objectives.

ECONOMICS

♦ The institution should demonstrate that the level of overall resourcing is appropriate to achieve the programme objectives.

♦ There is a balance between the running and the advancement of the programme, especially with regard to the technology-enhanced learning components within it.

TECHNOLOGY

♦ The choice of technologies is based on their appropriateness for the pedagogical concept and takes into account both the students/participants and teaching staff.

♦ There is an IT-strategy with regard to the implementation of technology-enhanced learning which describes the technology currently used, its maintenance and considerations for future advancement.

♦ The reliability of the technology-delivery system is monitored and documented. Service-level agreements for hardware and software reliability are in place and operational.

♦ Educational Technology delivery follows best practice recommendations concerning usability and accessibility.

♦ The technology applied allows for the future reuse of content and information and supports sustainable development.

ORGANISATION

♦ The institution is able to demonstrate the existence and operation of the necessary infrastructure and support for the programme.

♦ There is a competency development policy for the staff involved in the design and running of the courses, especially those with technology-enhanced learning components.

♦ The definition of the work processes for implementing the programme's technology-enhanced learning components is transparent for those involved in the programme's implementation.

♦ The institution conducts a programme of continuous quality evaluation directed towards programme improvement

♦ The institution is responsive to student/participant complaints concerning the courses, especially those with technology-enhanced learning components.

CULTURE

♦ There are clear and demanding expectations towards the students/participants and teaching staff, as a major pillar of the programme's learning culture.

♦ The philosophy of change, innovation and co-operation within the institution, especially with regard to technology-enhanced learning, is stated.

♦ Consideration has been given to issues of workload, compensation, ownership of intellectual property resulting from the programme, and their impact on the staff's commitment and participation.

♦   Commitment of the institution's leading management to support the programme's objectives and implementation, especially with regard to the technology-enhanced learning components within it.

The EFMD CEL accreditation process is composed of several distinct stages. Figure 1 below describes this process and shows the way in which the different stages are linked. A brief description of each stage is provided. The different stages are:
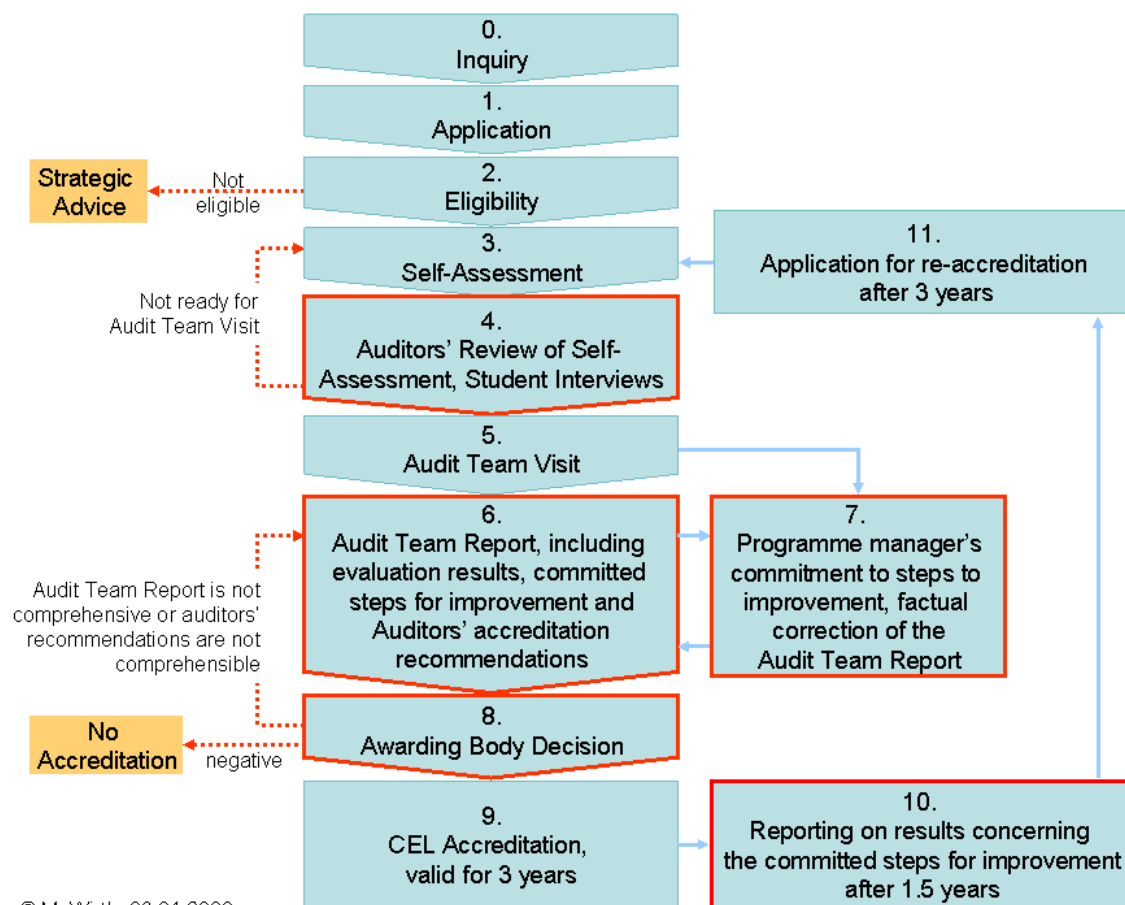
5.1.7   EFMD EQUIS

EQUIS was launched in 1997, whilst building on the Strategic Auditing Activities that EFMD had coordinated since the early 1980s. It is an international system for strategic audit and accreditation for the assessment of business schools. EQUIS promotes continuous quality improvement at all levels.

EQUIS evaluates whole institutions such as business schools and university faculties. It asses all the activities and sub-un its of the institution, including research, executive education provision and community outreach. EQUIS looks for a balance between high academic quality and professional relevance provided by close interaction with the corporate world.

The system characterizes the European approach to international management education. To allow for more diversity, it examines a business school with the mission statement as a starting point rather than from the statistical approach.

To achieve EQUIS accreditation, business schools must qualify in three areas:

♦ High international standards

♦ A significant level of internationalisation

♦ Needs of the corporate world must be well integrated into programmes, activities and processes.

Criteria for EQUIS accreditation include the following:

♦ Must be recognised in its national environment as a major quality institution by the marketplace.

♦ Demonstrate financial viability and institutional continuity to provide a high quality learning environment

♦ Effective support of personal development of participants beyond the acquisition of knowledge, such as managerial skills, values, ethics, leadership.

♦ Coherent programme design, staffing, administration and evaluation, incorporating client and student feedback and assessment processes for monitoring student progress.

♦ Defined research to develop distinctive areas of expertise.

♦ Articulated policy for internationalisation to demonstrate commitment to educating students for management in an international environment. The internationalisation of the student body includes the recruitment of students from other countries, exchange programmes and intercultural exchange in the classroom. The internationalisation of the faculty, international experience, involvement of visiting professors, international conferences, research and publications. The internationalisation of programmes includes the focus of teaching on the European and global business environments, courses taught in English and the international perspective in the main functional areas.

♦ The school should demonstrate a strong customer orientation, especially with relation with corporate clients, have corporate community participation in its governance, manage a portfolio of contacts with the corporate world, recognise the needs of the corporate world relating to programme design, include input from practitioners in programme delivery, have business experience and keep abreast of current management best practice through its faculty.

EQUIS offers quality improvement services under the Guided Development initiative and also offers strategic advice for non-eligible institutions.

Process

The EQUIS Accreditation Process
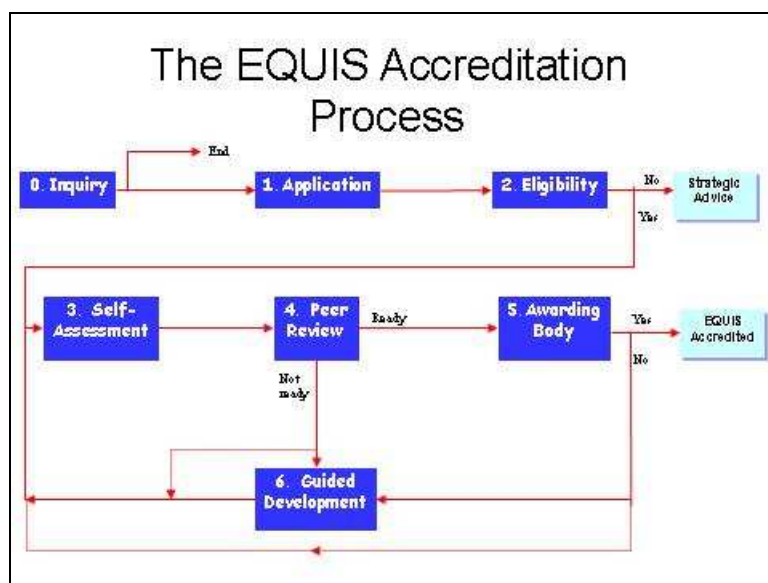
Status

EQUIS has accredited 110 institutions in 32 countries worldwide. The full list of accredited institutions is available at the EFMD website : www.efmd.org

EQUIS accreditations are awarded by the EQUIS Awarding Body and policies are defined by the EQUIS Committee.

EQUIS Standards

The EQUIS standards can be clustered in ten core areas.

♦   Context and strategy
  ◊   Mission : the school should have a clearly articulated mission which is understood and shared throughout the institution
  ◊   Governance : the school should have an effective and integrated organisation for the management of its activities, with a significant degree of control over its own destiny.
  ◊   Strategy : the school should have a defined, credible and coherent strategy, realistically reflecting its market positioning, resources and constraints.

♦   Programmes
  ◊   There should be coherent programme design, staffing, administration and evaluation, incorporating client and student feedback, and rigourous assessment processes for monitoring student progress.

♦ Students
The school should demonstrate a concern for the quality of its students through appropriate selection processes where these are possible, through the management of student progression through its programmes, and through the provision of appropriate student services. It particular, it should ensure the quality of the placement of its graduates through a well-resourced student body representing a diversity of backgrounds and nationalities.

♦ Faculty
The school should recruit, develop and manage its faculty in accordance with its strategic objectives and have sufficient core faculty to cover the major disciplines and constitute a viable body of distinctive expertise.

♦ Research and Development
The school should regularly produce original contributions to knowledge (theoretical and practical) that are effectively disseminated. They should demonstrably make an impact on one or more constituencies that are strategically important for the successful development of the school : academic peers, management professionals, etc.

♦ Internationalisation
The school should have a clearly articulated strategy and policies for internationalisation. It should demonstrate its commitment to educating and preparing students and participants for management in an international environment. This should be underpinned by active collaboration with international partner institutions in fields such as student exchanges, joint programmes, research activity and corporate connections. The school should be able to attract students and faculty from other countries; it should produce and carry out research of international interest, relevance and/or scope.

♦ Corporate connections
The school should have a clearly articulated strategy and policy with regard to its relations with the corporate world. It should demonstrate that it develops students and participants with a practical understanding of business and management through interaction with the corporate world. Faculty should be involved with current management practice through research and consultancy activities undertaken in collaboration with corporate partners. Corporate input should be a key feature of the school's activities.

♦ Executive education
The school's programme offering in the field of executive education should be appropriately integrated into its overall strategy and into its central management systems. It should not bbe seen as a peripheral activity but as one that is central to the strengthening of its connections with companies and organisations within the markets that it is serving. It should contribute to the development of the faculty in maintaining relevance in their teaching and research. It should contribute to the improvement of business practice by putting the school's distinctive expertise at the disposal of practicing managers.

♦ Contribution to the community
The schools should have a clear understanding of its role as a "good citizen" within the local, national and international communities in which it operates. There should be evidence that the school's contribution to society is supported by a range of activities outside the normal programme delivery. Furthermore, the school should proactively promote ethical behaviour and corporate responsibility as fundamental values underpinning its educational objectives and its own internal and external operations.

♦ Resources and administration
The school should be able to demonstrate financial viability and institutional continuity, with physical resources and facilities to provide a high quality learning environment and sufficiently high quality administrative staff and processes to support the school's range of activities.

5.1.8   E-EXCELLENCE

E-xcellence is a web-based instrument focusing on e-learning in higher education.It is the main product of a two-year project, undertaken under the auspices of EADTU and involving the following partners :

♦ European Association of Distance Teaching Universities (EADTU)

♦ The Open University (OUUK)

♦ Open Universiteit Nederland (OUNL)

♦ University of Oulu (OULU)

♦ Centre National d'Enseignement à Distance (CNED)

♦ Universitat Oberta de Catalunya (UOC)

♦ Universidad Nacional de Educación a Distancia (UNED)

♦ Estonian Information Technology Foundation (EITSA)

♦ National Council for Distance Education (APERTUS)

♦ Network per l'Universita Ovunque (NETTUNO)

♦ European University Association (EUA)

♦ The eLearning Industry Group (eLIG)

♦ Nederlands-Vlaamse Accreditatie Organisatie (NVAO)

The instrument is based on the E-xcellence manual containing the benchmark statements, with the criteria and indicators.
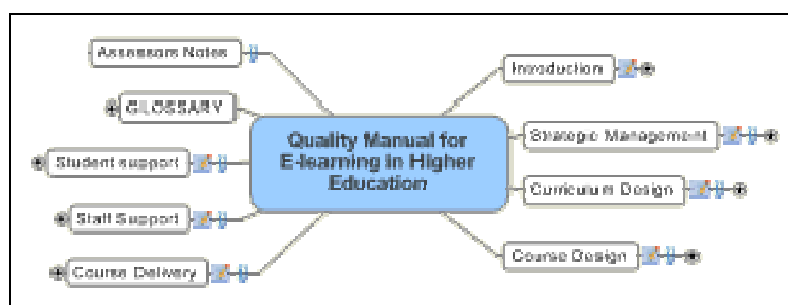
Strategic Management

The institution should have e-learning policies and a strategy for development of e-learning that are widely understood and integrated into the overall strategies for institutional development and quality improvement. Policies should include both infrastructure and staff development.

The resourcing of developments in e-learning curricula should take into account any special requirements over and above the normal requirements for (non-e) curricula. These will include items such as equipment purchase, software implementation, recruitment of staff, training and research needs, and technology developments.

The institution should have a management information system which is reliable, secure and effective for the operation of the e-learning systems adopted.

When e-learning involves collaborative provision the roles and responsibilities of each partner should be clearly defined through operational agreements and these responsibilities should be communicated to all participants.

Curriculum Design

E-learning curricula should conform to qualification frameworks, codes of practice, subject benchmarks and other institutional or national quality requirements in the same way as non-e curricula.

Curricula should be designed in such a way as to allow maximum flexibility for the learner with respect to time, place and pace of learning, consistent with the satisfactory achievement of learning outcomes and integration with other (non-e) learning activities. Use of formative and summarative assessment needs to be appropriate to the curriculum design.

Curriculum design should ensure that appropriate provision is made for the acquisition of general educational objectives and the integration of knowledge and skills across the programme of study. When blended learning is used, the contribution of e-learning components to the development of educational objectives needs to be made clear.

Curricula should be designed in such as way as to require broad participation in an on-line academic community. As well as student-student and student- tutor interactions this should include, where appropriate, interaction with external professionals and/or involvement in research and professional activities.

Course Design

Each course should include a clear statement of learning outcomes in respect of both knowledge and skills. Outcomes should be of such a nature as to be attainable through e-learning, augmented as and when necessary by face-to- face provision. In a blended-learning context there should be an explicit rationale for the use of each component in the blend.

Learning outcomes, not the availability of technology, should determine the means used to deliver course content and there needs to be reasoned coherence between learning outcomes, the strategy for use of e-learning, the scope of the learning materials and the assessment methods used.

Learning outcomes should be comparable with those of courses delivered by other means.

Courses should be designed in such a way as to:

♦ foster active learning;

♦ facilitate individual study and the development of study skills;

♦ support the development and interaction of learning communities;

♦ place the learner in control of time, place and pace of learning wherever possible;

♦ recognise the diversity of learners and build on their strengths and backgrounds;

♦ make appropriate provision for persons with disabilities;

♦ be sensitive in their use of materials to the cultural diversity present amongst learners;

♦ require learners to reflect on, evaluate and provide feedback on course contents and requirements.

Interactions between students and with tutors (both synchronous and asynchronous) should be facilitated by a variety of means including e- mail, telephone, group forums etc to allow both individual and group interactions. Access to tutors should be designed to be on a regular and sufficient basis known to both tutors and learners. At the minimum level of engagement tutors should provide learners with timely expert advice on course issues or materials and individual feedback on assignments.

Course design, development and evaluation should involve individuals or teams with expertise in both academic and technical aspects. Integral to the course design process should be mechanisms for trialling materials and incorporating feedback into the final product.

Learning materials should be designed with a sufficient level of interactivity to enable active student engagement and to enable them to test their knowledge, understanding and skills at regular intervals. Where self-study materials are meant to be free- standing, they should be designed in such a way as to allow learners on-going feedback on their progress through self-assessment tests.

Course materials should conform to explicit guidelines concerning layout and presentation and be as consistent as possible across a programme.
Course materials including the intended learning outcomes, should be regularly reviewed, up-dated and improved using feedback from stakeholders as appropriate.

Courses should provide both formative and summative assessment components. Summative assessment needs to be explicit, fair, valid and reliable (see section 2.5.2). Appropriate measures need to be in place to prevent impersonation and/or plagiarism, especially where assessments are conducted on-line.

Staff Support

All staff with academic, media development and administrative roles need to be able to support the development and delivery of e-learning programmes without themselves being technical experts. The institution should ensure that appropriate training and support is provided for these staff and that this is training is enhanced in the light of system developments.

Pedagogic research and development should be regarded as high status activities within institutions with a commitment to high quality e-learning. There should be mechanisms within these institutions for the dissemination of good practice in support of e-learning (including good practice developed elsewhere and/or through consortia), and for the training or mentoring of new staff in such practice. Career development incentives need to reflect an e- learning culture.

The institution should ensure that issues of staff workload and any other implications of staffs' participation in e-learning programmes (such as intellectual property rights over programme materials) are taken proper account of in the management of courses or programmes.

Institutions should ensure that adequate administrative support (including effective management information systems) is available to academic staff, particularly part- time tutors/mentors.

Student Support

Prospective students should be provided with a clear picture of what will be involved in pursuing the e-learning programme and the expectations that will be placed on them. This should include information on technical (system and VLE) requirements, requirements concerning background knowledge and skills, the nature of the programme, the variety of learning methods to be used, the nature and extent of support provided, assessment requirements, fees, etc.

E-learning students should be provided with the equivalent of a student handbook setting out their rights and responsibilities, those of their institution, a full description of their course or programme, and information on the ways in which they will be assessed.

E-learning students should have access to learning resources and learner support systems which, although they may be provided through different means, are the equivalent of those available to campus-based students. These should include:

♦ access to library resources;

♦ support for the development of key skills (including support for e-learning skills, collaborative working on-line and contributing to on-line communities which are key skills in an e-learning context);

♦ advice and counselling over choice of courses and progression through the programme;

♦ an identified academic contact, tutor and/or mentor who will provide constructive feedback on academic performance and progression;

♦ access to help desk, administrative support and advisory services;

♦ opportunities to provide and receive formal feedback on their experience on the course:

♦ procedures to handle and resolve any difficulties or disputes which may arise.

Students should be provided with clear and up-to-date information on the range of support services available and how these may be accessed.

The expectations on students for their participation in the on-line community of learners needs to be made clear both in general terms and in relation to specific parts of their course or programme.

Further information can be found at : http://www.eadtu.nl/e-xcellenceqs

## 5.1.9   INTERNATIONAL ASSOCIATION FOR DISTANCE LEARNING - IADL

The International Association for Distance Learning (IADL) was originally established to promote quality in distance education and training, and to provide approval and recognition of open and distance learning programmes and their providers. This has now been extended to include providers of elearning and online courses worldwide. The IADL is an independent, non-profit organisation with its principal administrative offices in the United Kingdom.

Standards for Quality Online Courses

This overview represents the standards and guidelines used by the Michigan Virtual University (MVU) in producing specifications for, and evaluating, e-learning (Please refer Annex 5).

Philosophy of online instructional design (OID)

Standards are driven by the philosophy of Instructional Design, from which general theory of OID and principles are then derived and applied using a modular approach.
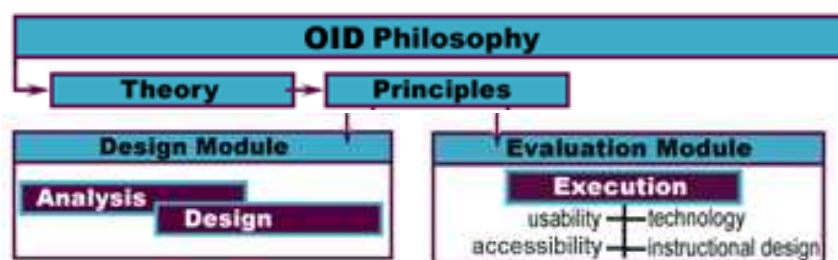
Components of Standards

MVU's online instructional design (OID) standards are divided into four categories: Technology, Usability, Accessibility and Instructional Design. Each category is broken down into standards and sub-standards, which have a variety of attributes that are intended to help both the design and evaluation of online courses.

Measurement Criteria

Each standard has a Measurement Criteria that gives a description of how that standard should be met.

Benchmarks

Each standard's measurement criteria will include Benchmarks that will give the evaluator general criteria and key things to look for in evaluating the standard.

Ratings

Each standard contains a rating that helps evaluators determine how well a course meets the various criteria.

Weight

Each standard is also given a weight. This is basically a determination of how vital a standard is to the functioning of a course. Our system applies one of three different weights to each standard: Mild, Serious, and Fatal.

Prescriptions

Each standard also contains a Prescription. A Prescription is used as a corrective action when a standard is not met.

The online instructional design (OID) standards encompass four categories:

♦ Technology Standards
  This category is primarily involved with the functionality and appropriateness of the technology. The Technology category does not encompass such things as navigation, but rather issues of whether or not the technology works, if its appropriate to the audience, etc.

♦ Usability Standards
  This category also deals with technology, but goes beyond mere "does it work" issues and deals primarily with function as it pertains to promoting an optimal learning environment

♦ Accessibility Standards
  This category is designed to ensure that courses which must or should be accessible meet the minimum requirements for accessibility. These standards are based on WAI's Priority 1 guidelines for basic Internet content.

♦ Instructional Design Standards
  This category represents what is most often missed in on-line instruction. That is, is the material itself pedagogically sound? The standards ensure that all necessary components of successful instruction are present; Explanation, Demonstration, Practice, Feedback and Assessment. Further, they ensure that content; practice and assessment are consistent with the type of skills and knowledge being taught, the stated or implied objectives of the instruction, as well as being consistent with each other.

The IADL Standards and Sub-Standards

Each standard is broken down into its smallest component part. For example, the Technology (T) category has three main standards, one of them being Identification of Technology Requirements (T1). This standard is then broken into 11 distinct sub-standards - for instance, Identification of Audio Capabilities (T1.3).

Technology Standards

This category is primarily involved with the functionality and appropriateness of the technology present in an online course. The Technology category does not encompass such things as navigation, but rather issues of whether or not the technology works, if it is appropriate to the audience, etc.

T1 - Identification of Technology Requirements

This standard determines if the course identifies the technology capabilities necessary for completion of the course to potential learners.

T1.1 - Identification of Minimum Browser

T1.2 - Identification of Required Connection Speed

T1.3 - Identification of Audio Capabilities

T1.4 - Identification of Video Capabilities

T1.5 - Identification of Required Browser Plug-ins

T1.6 - Instructions for Acquiring Plug-ins

T1.7 - Identification of Software Requirements

T1.8 - Instructions for Acquiring Software

T1.9 - Identification of Operating System

T1.10 - Identification of Hardware Requirements

T1.11 - Instructions for Acquiring Hardware

T2 - Identification of Audience Capability

This standard is concerned with whether or not the course's overall technology matches the skills of its audience.

T2.1 - Required Basic Internet Skills

T2.2 - Required Advanced Internet Skills

T2.3 - Required Plug-In Skills

T2.4 - Required Software Skills

T3 - Technical Functionality

The last Technology category determines the technical performance of the course. This standard attempts to discover technical errors in order to determine their impact on the learner's ability to meet the instructional objectives of the course.

T3.1 - Hyperlink Errors

T3.2 - Programming Errors

T3.3 - Image Errors

T3.4 - Multimedia Errors

T3.5 - Server Errors

Usability Standards

This category deals with technology, but goes beyond mere "does it work" issues and deals primarily with function as it pertains to promoting an optimal learning environment.

U1 - Interface Consistency

This standard evaluates the consistency of the course or system's learner interface. In other words, this standard determines whether or not there are any elements that will detract from the learner concentrating on the course material without any undue distraction or confusion.

U1.1 - Font Consistency

U1.2 - Text Consistency

U1.3 - Element Placement and Presentation Consistency

U2 - Learner Support

This Usability standard evaluates the presence and quality of learner support within a course. This standard focuses on the availability of materials and functions which allow the learner to receive help while using the course.

U2.1 - Presentation of Supplementary Materials

U2.2 - Presentation of Learner Support

U2.3 - Presentation of Glossary Materials

U3 - Navigational Effectiveness and Efficiency

This standard evaluates the consistency of the course or system's user interface. In other words, this standard determines whether or not there are any navigational elements that will detract from the learner concentrating on the course material without any undue distraction or confusion.

U3.1 - Accessible and Navigable Home or Course Map

U3.2 - Intracourse Navigability

U3.3 - Presence of Course Progress Indicators

U3.4 - Presence of Course Orientation

U4 - Functionality of Graphics and Multimedia

This standard determines the functionality of graphical and multimedia elements of a course. Whereas the T3 standard dealt solely with whether or not some of these elements actually work, this standard deals with whether or not the media in question is actually usable.

U4.1 - Image Functionality

U4.2 - Audio Functionality

U4.3 - Video Functionality

U4.4 - Simulation Functionality

U5 - Integration of Communication

The last standard of the Usability category determines how well communication is integrated into an online course. For self-paced and self-contained courses that contain no communication component, this standard should not be used.

U5.1 - Communications Expectations

U5.2 - Availability of Communication Channels

U5.3 - Discussion Functionality

U5.4 - Chat Functionality

Accessibility Standards

The Accessibility category is designed to evaluate whether or not the course has been designed to meet WAI's Priority 1 guidelines for basic Internet content. All Accessibility Standards are rated on a Pass/Fail basis.
These standard will not be factored in the actual rating of a course. Rather, they will be used to establish whether this course is accessible to those with disabilities.

It should be noted that the United States has developed a set of standards for courses produced with Federal funds called Section 508 Standards. Section 508 Standards are based on the WAI guidelines, but are more complete and rigorous. The Accessibility standards included here are based on WAI because of their more universal acceptance and applicability.

A1 - Basic Content

Accessibility standards for Basic Content deal with issues of text, presentation, language and fundamental presentation of course and web content.

A1.1 - Text Equivalences for Non-Text Elements

A1.2 - Alternatives to Color

A1.3 - Language Usage

A1.4 - Style Sheet Usage

A1.5 - Updating Alternative Content

A1.6 - Screen Flickering

A2 - Tables and Frames

Accessibility standards for Tables and Frames assure that the implementation of these elements in a course are done in such a way as to remain accessible for those with disabilities.

A2.1 - Row and Column Identification

A2.2 - Multi-level Table Markup

A2.3 - Frame Titling

A3 – Media

Accessibility standards for Media assure that the use of graphics, audio, video and other media are done in such a way as to remain accessible for those with disabilities.

A3.1 - Image Maps

A3.2 - Multimedia Presentations

Instructional Design Standards

MVU's Instructional Design category of standards is different than the Technology and Usability categories. Whereas the categories of Technology and Usability contain discrete standards that apply to an entire course, the Instructional Design category of standards will be dependent upon the type and number of performance objectives in a course.

Understanding the Instructional Design Standards
The process of designing and evaluating the Instructional Design of a course is approached from a Performance Objective standpoint; i.e. online courses can be broken down into Units and Objectives.

All of the instruction that can be mapped to an objective will be of a particular Performance/Knowledge type (PK Types). Depending upon the type of knowledge and performance that is required for each objective, the standards define a unique set of standards for that objective. This allows for a totally customized design or evaluation of the Instuctional Design of an online course.

The table below represents the PK Types identified in the standards.

	Knowledge				
P e r f o r m a n c e	Recall Facts (F)			Derive Methods (M)	Derive Solutions (S)
	Recall Elements (E)				
	Recall Concepts (C1)	Identify Concepts (C2)	Apply Concepts (C3)		
	Recall Tasks (K1)	Identify Tasks (K2)	Perform Tasks (K3)		
	Recall Principles (P1)	Identify Principles (P2)	Apply Principles (P3)		

The PK Types were derived in part from M. David Merrill's Component Display Theory and Jeroen van Merriënboer's Complex Cognitive Skills and Knowledge Theory.
Taken from : http://standards.mivu.org/overview/

Key elements in the evaluation of PK types are

♦   Presence of Appropriate Explanation / Demonstration

♦   Presence of Appropriate Practice

♦   Presence of Appropriate Feedback

♦   Presence of Appropriate Assessment

5.1.10 INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS - IEEE

Participation in the accreditation process is a major responsibility of the Institute of Electrical and Electronics Engineers (IEEE). The IEEE Educational Activities Board (EAB) is responsible for carrying out the accreditation process with ABET (formerly, Accreditation Board for Engineering and Technology, Inc.) for engineering and engineering technology programmes within the United States. ABET is a federation of 28 engineering, professional and technical societies and is recognized by the Council on Higher Education (CHEA) for the accreditation of programmes in engineering, engineering technology, computing science, and applied science programmes within the United States. The IEEE is the largest member society of ABET and is responsible for more than 700 engineering and engineering technology programs through ABET. The IEEE EAB also participates in international accreditation activities.

The IEEE Corporate Office is located in New York, N.Y., U.S.A. More information can be found at : http://www.ieee.org

The IEEE EAB Accreditation Policy Council (APC) develops IEEE policies, procedures and positions with regard to the accreditation of engineering and engineering technology. The APC also coordinates the activities of:

♦ The EAB Committee on Engineering Accreditation Activities (CEAA)

♦ The EAB Committee on Global Accreditation Activities (CGAA) and

♦ The EAB Committee on Technology Accreditation Activities (CTAA)

2.1.11 RANKINGS IN THE PRESS

In the "Financial Times", rankings regularly appear, also with regard to distance learning MBA programmes. The criteria include:

♦ intakes per year

♦ international accreditation

♦ time limit for study in years

♦ average time to complete in years

♦ percentage complete in years

♦ percentage of international students

♦ examinations required

♦ online examinations

♦ percentage of teaching materials on line

♦ percentage of online coursework

♦ online teamwork

♦ local study centres

- continents where supported

- course characteristics

"Which MBA?" published by "The Economist" (2006 – 18th edition) covers a comparable set of criteria.

CHAPTER 6.
LESSONS LEARNT FOR UNIQUE

The UNIQUe project aims at enhancing the reform process of European higher education institutions through the creation of an eLearning quality label for university accreditation that certifies and facilitates the improvement of higher education eLearning-related processes and management.

Accreditation is a key tool for quality improvement of European higher education institutions that are providing ICT based learning initiatives. However, ICT based learning offerings are a particular challenge to accreditation and certification.

Accreditation is increasingly important as the number of ICT based learning initiatives rises. It is becoming a key factor in a student's choice of learning and assists employers when reviewing employees' and potential employees' educational credentials. Moreover, it supports the shift from provider-centred to learner-centred quality assurance.

The question of quality awareness, improvement and management at European universities in the field of ICT-based learning is core to achieve lifelong learning in education and training.

From the Survey conducted within UNIQUE project, the following key elements and lessons emerged:

♦ **It is undoubted that, ICT can be considered a catalyst for major innovation and ICT plays a key role in transforming Universities**. It is also true that today most of European universities are integrating technology in their daily work. Neverthelss, looking at the current situation, ICT based learning is still a rather new phenomenon and that different "visions" of eLearning exist.

♦ **Within Europe, a broadly acceptable Quality Assurance and accreditation system in eLearning within HE is absent** despite the need to support HE in order to face the challenges presented by the emerging needs associated with the introduction of new technologies.

♦ **Various approaches for assuring quality are available but there are still gaps and inconsistencies amongst them**. Different projects and initiatives have been carried out at national and European level each having different points of focus and viewpoints on how to address quality in eLearning in Higher Education. Some quality approaches and quality assurance systems are specifically targeted at the University sector; others are just adopted or imported from industry to this sector. Some originate from third party independent bodies others from public institutions. Some initiatives provide structured guidelines and codes of practice for HE, while others are based on self-evaluative experience or peer-review.

♦   An important lesson to emerge from the analysis conducted within Unique WP1, was the demonstration that **a suitable and effective system of accreditation for quality of eLearning in HE needs to include both a peer-review approach** (a traditionally recognised and accepted approach within academia) **and one that recognises the principles of quality assurance based on clear, agreed and objective criteria, procedures coupled with independent evaluation.**

♦   Furthermore the **accreditation system should focus on, innovation, a continuous improvement philosophy, that respects specificity and diversity and involves** the Universities themselves as active contributors to the evaluation process.