

HIGHER EDUCATION CHALLENGES AND TENDENCIES IN KNOWLEDGE - BASED SOCIETY

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Abstract: Ever since its appearance, the term of knowledge-based society was intended to induce to achieve the most focused revolutions at the planet level: the global transformation of the world from the perspective of the durable development.

In this context, the education and particularly the higher education are called upon not only to react to these trends of globalization, but rather to play a decisive role in the development of the desirable future societies, causing the qualitative transformations of nature to preserve the diverse identity of the communities, but and the tolerance which is based on communication, knowledge and understanding of the interests of each participant at this process.

JEL classification: M12, I20, I23.

Key words: education, research, knowledge society, higher education, university, human potential.

1. INTRODUCTION

The problem of education and higher education (in which the research component has a defining role), as a global priority, is unanimously recognized.

In the current era of the globalization, the shaping and the redefining of the higher education is defined by new trends: massification, internationalization, transnational education through mobilities, lifelong learning and distance education through e-learning, classifications and international rankings, quality assurance, university-industry-private environment link, new approaches of the governance, academic freedoms and managements, brains drain and marketisation / privatization, etc..

The knowledge-based society has as mission the knowledge generation, the dissemination of this knowledge through the education and the training, their diffusion and efficiency through the innovation and the technological development. Moreover, the investments in research, innovation and technological transfer ensure the economic development of the society. To some measure, these goals are achieved by the role played by the higher education, generally, and through the university research, in particular.

The increase of the role of research and development and innovation, in the current context of social development, characterized by high rates of change, fierce competition, globalization and other adverse effects on quality of economic and social life, imposed the development of the scientific and technological potential in the universities and, especially, the improvement of the performances of the university research.

To improve and develop in a durable way the existing economy, the dynamic and flexible higher education will rely on innovation which is based on the integration between education and research at all levels.

The higher education plays a key role in the confronting with the current challenges and the promotion of the cultural and social development of our society.

To answer to knowledge-based society demands, the enlarging and diversification of the post university education offer, at home and abroad, is imposed, inclusively by partnerships with universities with a widely acknowledged tradition and performances

2. OBJECTIVES

Through this paper we try to emphasize the special role that generally the education system and particularly the higher education play in the population education, in the acquisition of multiple knowledge which can be valued by individual skills and competencies with an important contribution to the economic and social growth, to the placing of our country among the civilized countries.

The university education is a major concern at the global level. It is given a crucial role in the development of the knowledge-based society, on which the common future relies.

The quality improvement of the higher education is a concern of all stakeholders around the world especially since the labor market becomes increasingly globalized.

3. METHODOLOGY

Since the universities are the pillars upon which the higher education performs its activity, we will address this concept, and in its framework we will highlight its importance in the scientific research which is the base of the recognition of the professional competencies in the education.

The educational process is the most intensive way of doing education, is the alive laboratory of the faculty / university where there is achieved the transfer of the culture from the society to the student.

The educational process in its whole is both a process of knowledge, a unit of teaching - learning - evaluation and a framework for organizing the training situations, for forming the skills, for developing the capacities and the skills.

4. ANALYSES

4.1 The contemporary university education

Place and role of education in the complex structure of the training - educational process resulting from its links with other parts of the social system to which it belongs. The latter define the objectives of teaching, resources and constraints they have to deal with education, and completing the learning with the outcomes which are materialized in the education.

The content of an educational process is reflected in curricula, syllabi and teaching technologies.

The dynamics of the educational process is due on the one hand to the development of education content, which is in constant transformation, adaptation, renovation and development, depending on the progress of science, technology, technologies, and on the other hand to the integrator and dynamic nature of the didactic technologies.

The education system must be not only informative but also formative. The double character of the education system has as result a double product: one for information - of

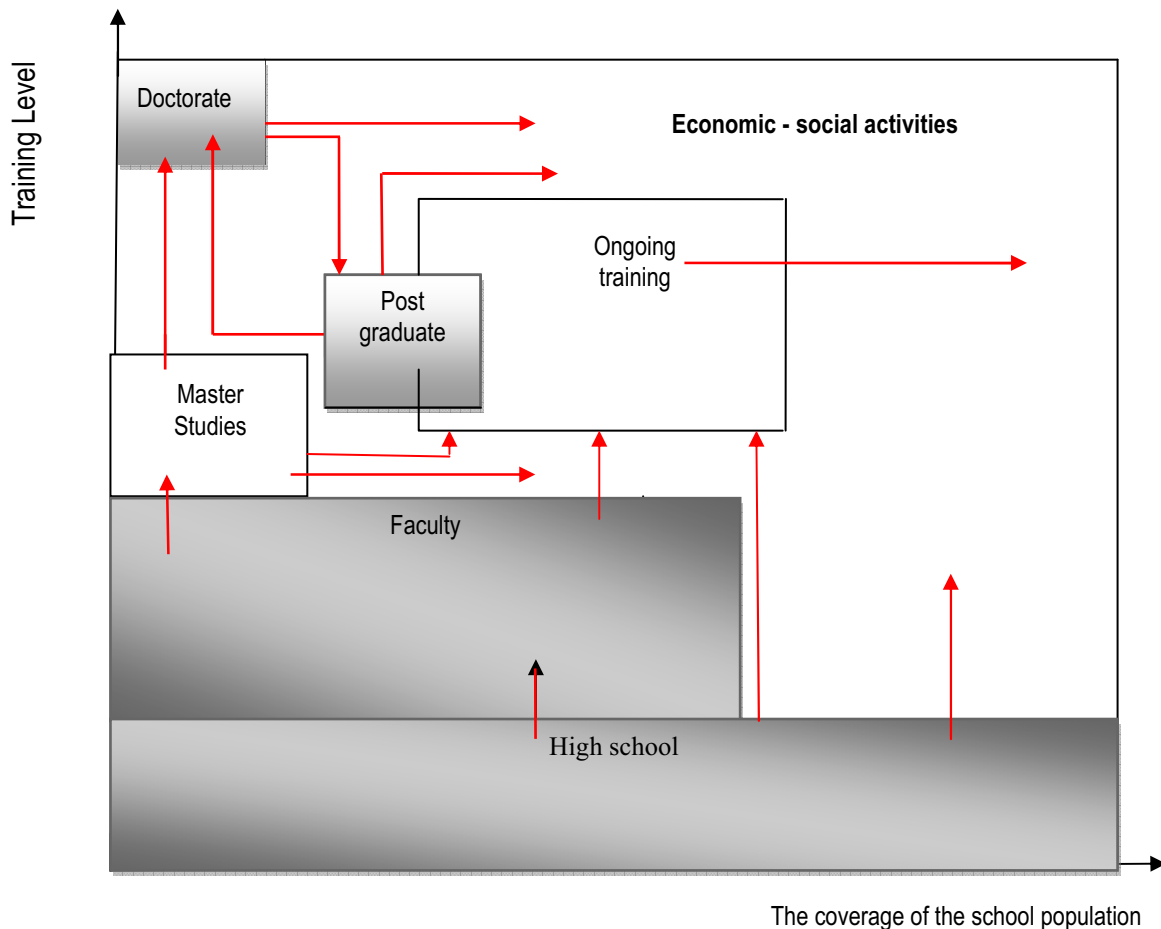
increasing mass of information stored in humans as a result of the learning of the theoretical and practical required knowledge - and another which is formative consisting of qualitative transformation of the trained person's personality dimensions .

The developed countries have an education system which consists of four subsystems: basic education, higher education, continuing education and distance learning.(Beju, 1992, pages 4-7).

The Basic education consists of that category of educational activities providing to the individuals an educational minimum which is considered necessary for the society at a time, with the central object of preparing for the life for the whole school populations. This type of training corresponds to preschool education, compulsory education of nine grades and to the secondary education.

The lifelong learning is specific to contemporary society, marked by the repeated innovations in science, engineering, information enrichment. Each individual has the right to education throughout life, to obtain higher qualifications of those who practice them, to obtain a university degree. The higher education is that subsystem of the education that comprises all the structures of professional training at the postbaccalaureat level.

An intuitive picture of the structural – pyramidal components of the higher education is shown in Figure no.1.



Source: The adaptation after National Education Law No. 1 of January 5, 2011
Figure no.1. The pyramidal structure of the Higher Education

From the pyramid structure analysis of higher education there are resulted two main conclusions: the components of the system and the flows, reflecting the students' extent grade in these components.

Analyzing the structure of the higher education, we find on the education levels, from simple to complex, its components are as follows:

- university – faculties have the time of studies from three to six years. They recruit the students from the high school graduates with the baccalaureate degree;

- the master studies lasting one to two years are for those faculty graduates with the university degree diploma, who wish to devote himself to scientific research or academic career;

- the continuing education courses addressing both to the faculty graduates and to the master degrees graduates and to the high school graduates. These are the specialized courses or the training courses of the employed staff;

- the doctorate, as a higher form of education are organized by industry and science majors and is conducted in departments and faculties under the scientific guidance of an accredited doctoral supervisor. It has a duration of three years and recruits the candidates from among its graduates of master studies;

- the graduate programs that include: advanced research postdoctoral programs and graduate programs of training and continuous professional development.

The flows to train the people reflect their access to the higher levels of education, namely the extent grade of the lower-level graduates in one of higher education and training, in other words, they reflect the destination of the university „product”. These flows highlight the selective nature of each higher educational level, giving a pyramidal structure to the university education.

The distance learning is for all those who wish to obtain a degree while for the independent reasons they can not participate in courses and other educational activities. The form of achievement of this education is made up, usually, through the correspondence courses.

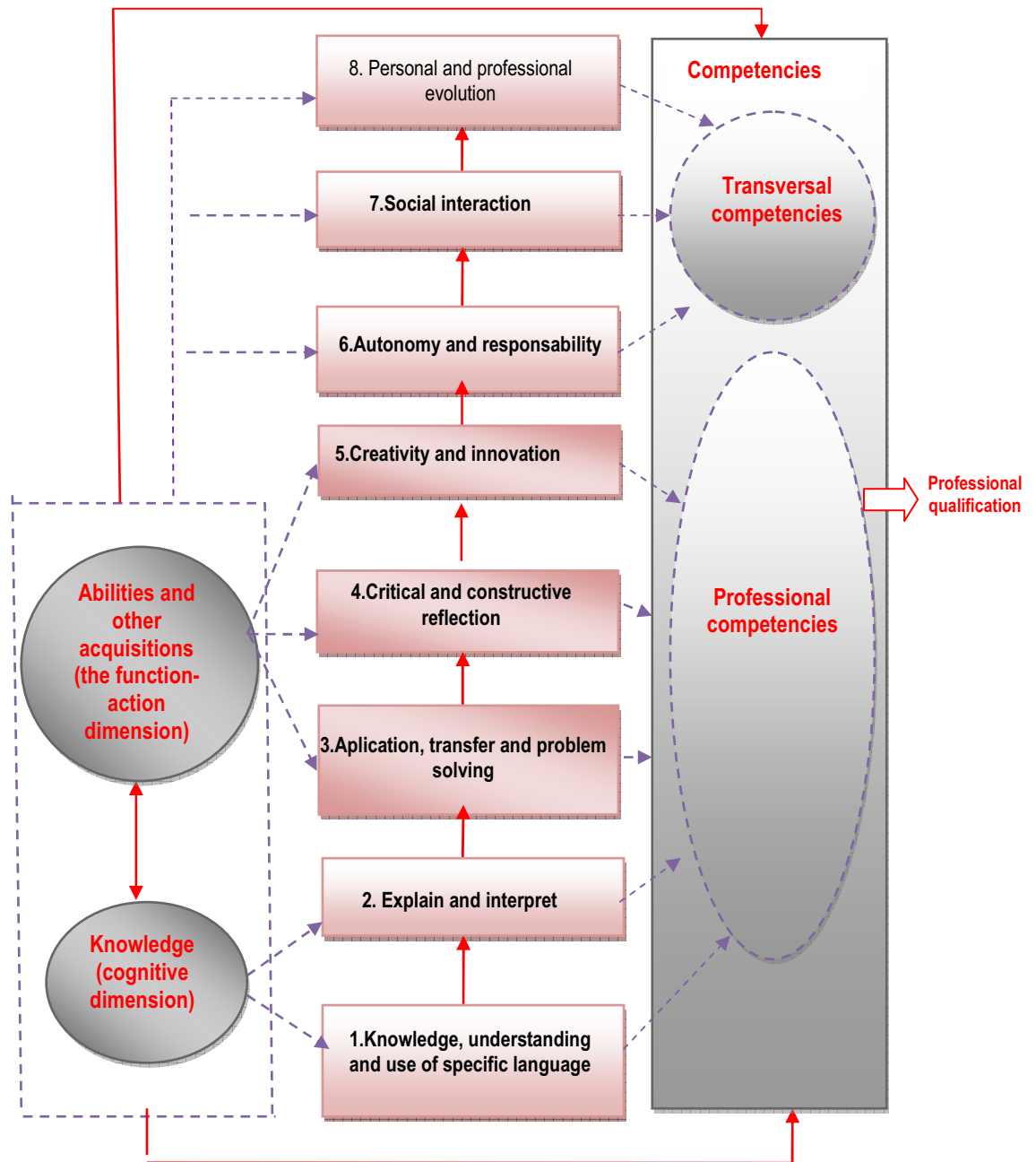
Andree and Hanne Smidt Surssock (2010) shows in their paper "Trends 2010: a decade of change in the European Higher Education", as the higher education has been affected by a number of changes in the last decade, inclusively by the higher rates of participation, internationalization , the growing importance of knowledge-based economies, and increasing the global competition. These changes have led to two main European policies: Bologna Process and Strategy from Lisbon , inclusively the modernization Agenda for the Universities.

The new millennium challenges on the higher education excellence impose a permanent quality concentration. Moreover, our education systems diversity and public politics support will admit the value of the different higher education missions, from research and education to community services and social cohesion and cultural development agreement. All higher education students and teachers must be equipped to correspond to the transitory demands of a rapidly evolving society.

The higher education access must be extended by promoting the sub represented groups students potential and offering the adequate conditions for study finalization.

Each country participating at the Bologna Process will establish measurable objectives to the increase of global and under represented groups' participation in the higher education institutions, objectives that are to be achieved by the end of the next decade.

The knowledge, skills and competencies set someone has gained and is capable to show on a certain school cycle after the learning process has stopped are reflected in the learning results. (Figure no. 2)



Source: CNCIS, Preliminary observations on the required competences in Europe until 2020, in the Project "Developing an operational system of qualifications in the higher education in Romania", 2008-2011

Figure no. 2 Learning results

4.2 The University and the future challenges

In order to be able to understand the importance of the performance assessment for human resources in universities, we must take into account also the fact that this is basic component of performance management. Regarded as means to obtain much better individual and organizational results by understanding and managing performance in a unitary and contextual framework of education, performance management can be defined as a strategic and integrated approach to ensure long-term success by improving employee performance that work within and by developing team and individual participants' capabilities (Armstrong and Baron, 1998).

The university that is prefigured for this millennium will certainly be a center of innovation, creativity and critical thinking. For such a university, students become the most important resource. Therefore the entire university management must be thought in a way in which the education process be focused on the students' interest. This requirement becomes imperative for the universities in the small countries, because the external competitive environment is now globalized and therefore more competitive and aggressive.

The expansion of higher education in the context of globalization can be viewed on multiple levels:

- the massification of the higher education will continue, each country needs a growing population who is well prepared to contribute directly to the economic growth and the development of a prosperous society;

- the economic value of the higher education will become more evident to governments and governors;

- there will be increased the interest for the continuous learning and teaching and for the integration of this education in the universities;

- the financial resources of the universities will remain finite, and in the conditions of the increasing number of students, will decrease the state budget contribution for a student, in this case, the university management will have to increasingly develop the marketing function and finding more financial resources.

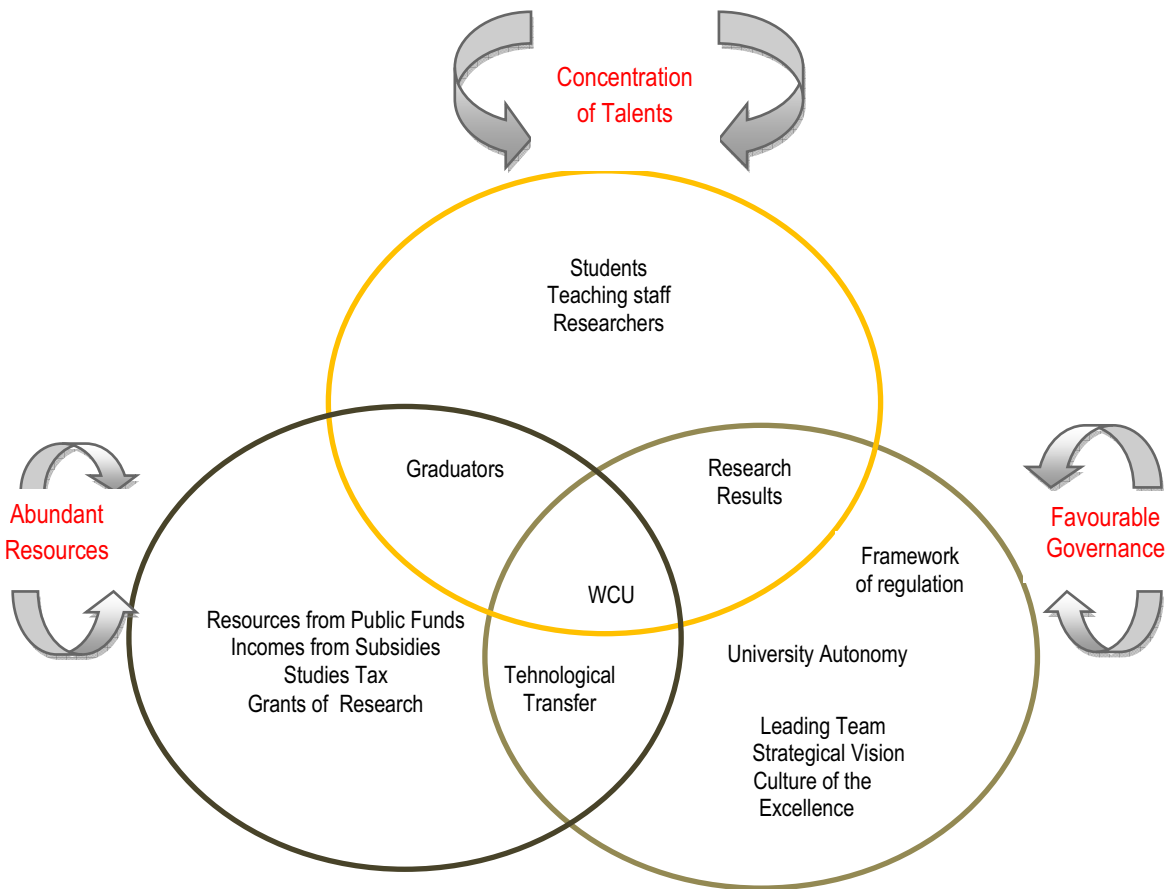
In the definition of the peak performance of the universities can be seen highlighting the concept of 'excellence, closely linked to the WCU' World Class University'

The excellence universities are almost universally defined in literature as the research universities (Hazelkorn, (2008), Mohrman, Ma and Baker (2008); Atlbach, (2003). In this context, the organization of the research schools, as centers of development of the human resources for the research excellence, is extremely important

We subscribe to the view which is expressed by Hazelkorn under which the research universities are the universities which have as priorities in the development the creation of high-level knowledge, the involvement in the social and economic life through this and which attaches a great importance to increase the research role, inclusively the development of the doctorates (Hazelkorn, 2008, pp.193-216).

World Class University and the excellence concept appeared in the last years in the public debate concerning the higher education policies.

In the definition of an university of excellence at the world level, Jamil Salmi, World Bank Coordinator for the Higher Education, proposed a model based on three key factors (Salmi, 2009, p.32): the concentration of talents, the abundant resources and adequate governance.



Source: Jamil Salmi, 2009, p.32

Figure no.3. Model of Excellence

Salmi analyzes the development of the university of world relevance in terms of national policies and institutional strategies. The development of the universities of world relevance without the development of relevant national policies in support of excellence is difficult to be achieved, because - the price of such universities, as noted in the international experience, is huge, in financial and human terms.

The author also notes that the different approaches of the national policies, combined with the specific features of the institutional and political culture of each country, have led to better results which are determined in terms of the development of the universities of world relevance.

Regarding the current concerns for supporting the mobility of researchers at the European and world level, it should be noted that for countries like Romania the maintaining in the country of the elite researchers remains a major challenge. Unlike richer countries, Romania cannot count on attracting in a massive way the research forces which are formed outside. As long as a valuable human potential can not be held in Romanian universities and research institutions, it is anticipated in a difficult way the fact that the preconized measures should have the desired results.

There is imposed the focusing of the research in some centers, taking into account the factors such as tradition, the existence of cores of performing researchers, infrastructure and international contacts.

One of the most important strategic projects for Romanian Higher Education is the Doctorate in Schools of Excellence (DSE). The project aims to test and implement an evaluation methodology to ensure international evaluation of the research quality in the universities, the supporting of the schools of excellence and the increasing of the capacity of scientific publishing at the institutional and individual level, with the impact on the quality of doctoral programs.

The evolution of the higher education system in Romania highlights the important progress in many areas of science, there are at present in Romania, the groups of researchers, the laboratories and the research competitive centers at European level. This can be highlighted through the results which are obtained by the researchers in the capitalization of the results and, in particular, by increasing significantly the number of scientific articles which are published in the journals with high impact factor.

The accumulations in time, since 1997, have led to increase the material base for the research in the universities, there are at present in many institutions the university programs to support the research and organization infrastructure in the knowledge clusters, so that an increasing number of more research teams to become competitive.

During 2001-2006, the National Council of University Research (NURC) has developed the identification, assessment and recognition process of the scientific research centers, resulting 38 centers which were recognized for excellence in all the scientific fields.

NURC initiative aimed at the research organization in the centers with the potential to become the centers of excellence, thus identifying, on the one hand, the collectives of researchers, on the other hand, the research infrastructure and the institutional framework for obtain the performance in the scientific research. Thus, these centers have been identified, recognized as centers of research with the real potential to become the excellence centers. It was a first stage of assessment of the research in the Romanian universities.

The second stage referred to the assessment of the research quality and at the allocation of financial resources to support the research performance, the indicator IC6 being a 2nd item that allows an assessment of research performances in the universities.

Since 2009, through the doctorate project in the Schools of Excellence, started to assess the research in Romanian universities in the fields of science. Such an evaluation will reveal the performing clusters of knowledge and we hope an adequate supporting of these for being competitive at the European level.

During this process there has been redesigned the evaluation system of the research centers, the emphasis is only on those centers that have proven the performances and the viability as future centers of excellence. The assessment was achieved by using peer-review system (peer review), there is also proposed an assessment of foreign experts, without excluding the performing experts from Romania.

5. CONCLUSIONS

The concordance between the physical and human capital quality is ensured through the education system; therefore education becomes one of the main factors in the creation of the most important contemporary society gain, the educated human being.

There is a constant concern for education systems reform at the European countries level, based on international collaboration, recommendation establishment, common declarations and decisions, legislation and practices harmonization on the education quality improvement measures, as premises for the increase of society and life development level in the EU space.

The new millennium challenges on the higher education excellence impose a permanent quality concentration. Moreover, our education systems diversity and public politics support will admit the value of the different higher education missions, from research and education to community services and social cohesion and cultural development agreement. All higher education students and teachers must be equipped to correspond to the transitory demands of a rapidly evolving society.

The higher education must rely on all levels research and artistic development, therefore promoting creativity and innovation in society. So, the number of people with research skills must increase.

The doctoral programs should offer a high quality disciplinary research and be more and more completed by interdisciplinary and inter sector programs. Moreover, the public authorities and higher education institutions will increase the attraction of the initial research activity.

The increase of the capacity of the university to gain the knowledge, the results and the experience in the areas of high technological and scientific level and to ensure the transfer and their dissemination to the society to support the social and economic progress; the increasing of the visibility of the scientific research in the universities and of their ability to integrate themselves in the national and international networks and the protection of the scientific and technical values from the university heritage, are just some of the specific goals of the universities regarding the achievement of the excellence in the scientific research.

There is stressed the importance of research and training in the higher education field, the promotion of interdisciplinarity in maintaining and improving the quality of this education and in ensuring the competitiveness of European higher education

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