





## Aims, Objectives, Emerging Contexts

The aim of the project is to promote a **unified strategic approach** to reforming Romanian doctoral studies in order to make sure that **doctoral and postdoctoral programmes** contribute effectively to the training of researchers with internationally recognized achievements, and thus ensure the visibility and recognition of the talent of young researchers trained in the country.

The project's **major objective** is to **restructure and strengthen the doctoral education and research programmes** within the national higher education and research system so as to identify and develop an institutional infrastructure able to support and improve the implementation of the 3<sup>rd</sup> Bologna cycle in correlation with the 2<sup>nd</sup> cycle, as a significant aspect of the integration of the Romanian higher education in the European Higher Education Area and in the European Research Area.

The project, therefore, meets the objective of the Priority Axis 1, of "*restructuring and improving education and training systems*", the models and tools for a strategic approach of the doctoral education system, with multiple effects on all implementation stages of the doctoral cycle, representing the basic elements of a *modern education and training system*.

The project's **specific objectives** are to:

1. **Support the implementation** of the doctoral education cycle (3<sup>rd</sup> Bologna cycle), which is closely and harmoniously associated with the other Bologna higher education cycles (Bachelor and Master), by improving the structure of the national doctoral education system, and building a modern and flexible institutional infrastructure, in accordance with the requirements of a *knowledge-based society*.

2. Develop and pilot appropriate models of **integration of doctoral education programmes** in the Bologna cycles, in the *fields of research, development and innovation, and in the European area*, by **defining and developing a specific model of advanced Doctoral School, flexible in its *modus operandi*, and network-like**.

3. **Strengthen the doctoral education system** by identifying and applying **strategic instruments**, including **quality assurance mechanisms**, common pillars of a successful **partnership structure**;

4. Expand the training capacity and strengthen the cooperation within doctoral school networks by building **an e-learning platform** that would contribute to "supporting doctoral students and researchers to participate in doctoral programs".

The consolidation of the doctoral education system, by means of an appropriate institutional reform, should lead to an **optimized development of human capital highly qualified in research and innovation** and at the same time it should provide a flexible environment for correlation with the demands of the labour market, in accordance with the general objective of the PO.

Through the proposed objectives, the project supports the achievement of Priority Axis 1, DMI 5 – "improving doctoral and post-doctoral programmes and specific systems of quality assurance and management in research" – as well as the two specific objectives of





the Priority Axis 1, DMI 5 of "*developing, structuring and strengthening the doctoral study system ... and doctoral schools ...*", both through the proposed reform of the institutional framework of doctoral programmes, and through the identification and development of management tools for research achievements.

The project aims to structure the national doctoral system **on two levels, built around two organisational models:**

**a. The existing institutions organizing doctoral studies (with several doctoral programmes in one or several doctoral fields)**

**b. Advanced doctoral schools (by doctoral fields), established by grouping and regrouping higher education institutions around topical interdisciplinary research.**

The project puts forward a **coherent, integrated, and flexible system of advanced doctoral schools** at national level, with appropriate tools for identifying and promoting achievement and excellence in both disciplinary and interdisciplinary research and education of young researchers. The advanced doctoral school model proposed by the project is intended to be defined by:

- A network-like organisation, which can include higher education institutions, research institutes, and companies, so as to ensure an emerging scientific and organisational framework, which provides both the conditions required for training PhD students and carrying out research, and an environment for experimentation, technology transfer, and innovation;

- An organisational model, which uses the existing institutional framework while allowing for the grouping and regrouping of institutions organizing doctoral studies/doctoral programmes in a new structure - the advanced doctoral school;

- A flexible organisational model, facilitating the integration of the research master (2<sup>nd</sup> Bologna cycle) as the first stage of a research oriented programme with further doctoral education, but at the same time providing the option for the research MSc to remain a distinct stage based on which the student's doctoral training program will be defined and further expanded, thus allowing for alternative paths of research training.





## Outlining Project Activities and Calendar

The project's activities are organized in work packages (WP):

Activities	Calendar
<b>WP 1. Definition of doctoral school model</b>	
1.1 Diagnosis of national doctoral system	November 2008 – May 2009 Public presentation at the 2009 National CNCSIS Research Conference, May 7-9, Timișoara
1.2 Consultation with decision makers, relevant partners and external experts to define the key features of the doctoral school model	May-July 2009
1.3 Defining key characteristics of the doctoral school as central element of the national doctoral system 1.3.1 Defining institutional aspects: organisation, interdisciplinarity, flexibility, financing, human resources, activities etc. 1.3.2 Defining quality assurance indicators/standards, accreditation procedures and methodologies 1.3.3 Defining the framework content of doctoral programmes / initial training of future researchers and the development of training modules 1.3.4 Admission requirements, training stages, including European mobility of doctoral students 1.3.5 Ensuring qualified human resources 1.3.6 Doctoral School Activities	April-December 2009
<b>WP 2. Validation of the Doctoral School Institutional Model</b>	
2.1. Piloting the doctoral school model throughout one academic year by institutions partners to the project 2.1.1. Defining specific pilot procedures 2.1.2. Specific establishment of target groups for piloting the doctoral school model 2.1.3. Piloting the doctoral school model 2.1.4. Quarterly evaluation reports regarding the operation of doctoral schools, prepared by the institutions participating in the pilot exercise	January 2010- June 2011
2.2. Improvement of the doctoral school model 2.2.1. Analysis of the quarterly evaluation reports regarding the operation of doctoral school in pilot institutions 2.2.2. Identifying issues that need correcting in order to improve the doctoral school model, by the expert groups involved in the definition of the doctoral school model (WP1)  2.2.3. Defining specific institutional and content elements, and adjusting the doctoral school model to the specific doctoral fields and programs	February – October 2011
2.3. Validating the doctoral school model and creating conditions to	August – October 2011



**Activities****Calendar**

generalize it to the entire system of doctoral and postdoctoral studies

**WP 3. Project Management (throughout the entire project duration)**

- 3.1. Coordinating the activities of experts and consultation activities with relevant partners
- 3.2. Defining the conditions for piloting and validating the doctoral school model
- 3.3. Project monitoring, internal evaluation and implementation of the necessary corrective measures, drafting reports
- 3.4. Financial management of the project
- 3.5. Organisation of project activities
- 3.5. Overall project management activities focused on objectives and deliverables.

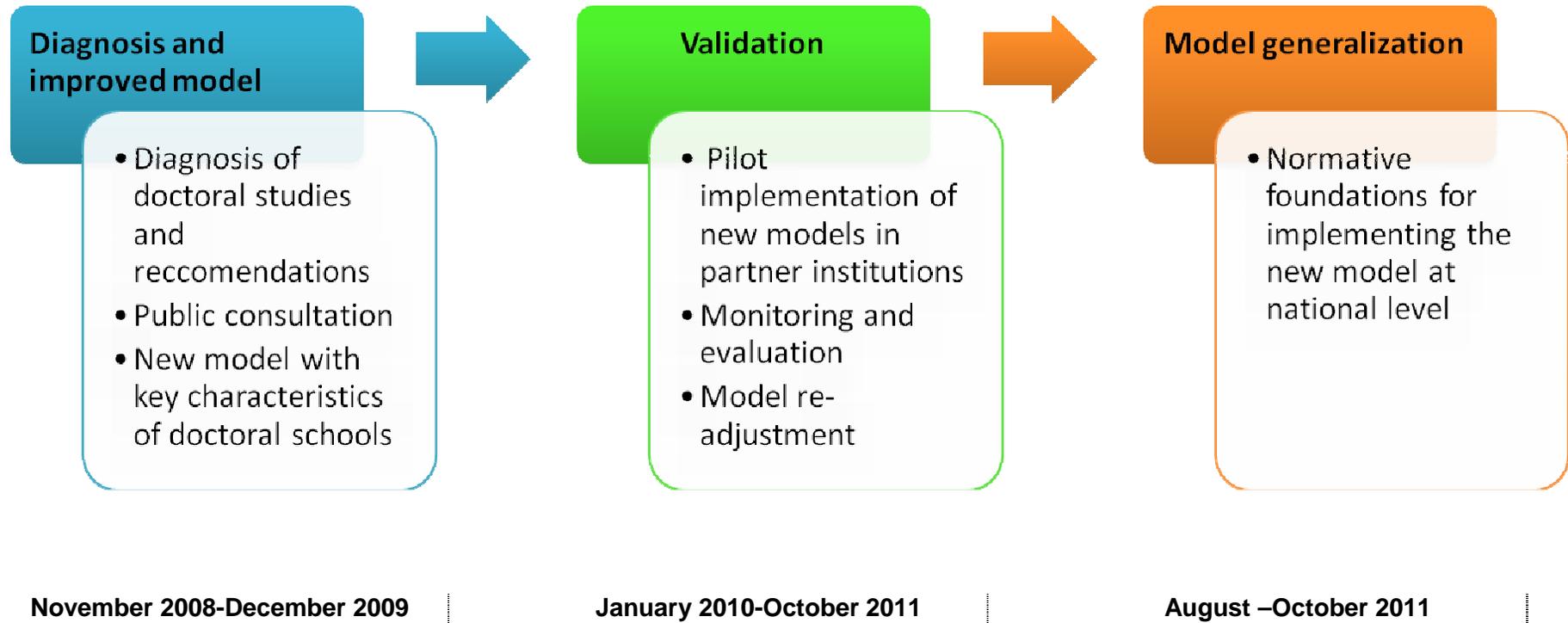
**WP 4. Communication (throughout the entire project duration)**

- 4.1. Building the visual identity of the project and the communication strategy
- 4.2. Project promotion/advertising activities

## Project's Anticipated Results

	<b>Status (as of December 2009)</b>
<b>WP1. Developing the framework of doctoral education</b>	
R1.1. Recommendations regarding the construction of doctoral schools / the structure of national doctoral system	Achieved Diagnosis reports and recommendations are published on the project's site: <a href="http://studii-doctorale.ro">http://studii-doctorale.ro</a>
R 1.2. Institutional model for the organisation framework of doctoral schools	Anticipated results
R 1.3. Specific procedures for the admission, assessment, and professional development of doctoral candidates	
R 1.4. Set of indicators assessing the quality of doctoral schools/programs and related procedures	
R 1.5. Curriculum framework for doctoral study programs	
R 1.6. Doctoral school training modules	
R 1.7. Accreditation procedures for doctoral school	
R 1.8. Integrated model of doctoral school	
<b>WP 2. Validation of the doctoral school model</b>	
R 2.1. Doctoral school piloting procedures	Anticipated results
R 2.2. Recommendations for the improvement of the doctoral school model	
R 2.3. Validated doctoral school model	
<b>WP 4. Communication</b>	
R 4.1. Visual identity guidebook	Achieved
R 4.2. Communication strategy	Achieved







## Project Context

The Lisbon Agenda for the modernization of the European Union has been recently re-launched, with a clear emphasis on economic growth and job creation, and a greater attention to enhancing the quality and relevance of education, research and innovation. The targets set by the European Union in these areas regard *inter alia* the reforming and modernization of the higher education systems so as to transform them into more flexible, productive systems, opened to the needs and demands of society. Higher education is also expected to play an important role in fostering social cohesion, reducing inequalities and increasing the level of knowledge, skills and competencies of a growing number of people.

The recognition of the role of higher education in ensuring a sustainable economic growth, as a key element in the development of a society based on knowledge – where universities are leading providers of highly qualified manpower and knowledge – resulted in the initiation of a harmonization process of growingly compatible national higher education systems (i.e. Bologna Process), and in important investments in human capital, as well as the emergence of a fundamental convergent structure: the European Higher Education Area. The latest EC Resolution, regarding the modernization of the European higher education, re-asserts the challenges universities are faced with, and also urges them to embark on those restructuring processes which would respond to the requirement of identifying and implementing new modern structures, activities and management, able to satisfy the latest demands of a knowledge society.

Romanian universities strives to keep up with all the new developments and demands both at national and European level, and this project is but one of the means to achieve new objectives emerging on the horizon.

The project answers to the following:

### **- European Union Employment Policy Priorities established by the 2005-2008 Integrated Guidelines for Growth and Jobs:**

Specialized studies have proved that accumulating scientific knowledge and research skills leads to a better position in the labour market, and also to increased productivity. The doctoral school model proposed by this project (with a network type organisation: higher education institutions, research institutes, companies) will support both by the scientific training of doctoral candidates, and the implementation of the scientific research results, by establishing partnerships with research institutes and enterprises. This will help adjust the research programs to the market requirements and will generate new jobs in the private environment, with subsequent employment of the researchers participating in the doctoral schools. Thus, the results will help improve labour quality and productivity, improve the correlation between labour supply and labour market needs, and also increase the research and development investments, especially from enterprises (Integrated Guidelines for Growth and Jobs 2005-2008).

Also, the adjustment of the initial education system to the new skills required will be achieved through the development (including the definition and piloting) of an





interdisciplinary and flexible doctoral study system, the diversification of training for doctoral students, and the creation of further career opportunities for basic and applied scientific research in research institutes and companies.

**- Priorities of the 2007-2010 Romanian National Reform Program (NRP) developed in the context of the European Strategy for Growth and Jobs (Lisbon Strategy):**

The development of doctoral programs and schools to improve the ability of universities to provide high qualifications relevant to the needs of the labour market and knowledge-based society, strengthening relations between academia, the business environment and the R&D sector to improve the ability of university education to respond to the changes occurring in the society, and to stimulate and support competitiveness and innovation is one of NRP priorities, directly pursued by this project: providing a national advanced doctoral school model with a network-like organisation between universities, research institutes and companies, which will create the opportunity to capitalize on the results of scientific research in favour of innovation. The established partnerships will enhance the cooperation between the providers of innovation and the sponsors of implementation, supporting the increasing competitiveness of enterprises and promoting RDI (NRP priority), thus strengthening the intensity of the links inside the education-research-innovation knowledge triangle.

**- Priorities of the National Development Plan 2007-2013**

The project's results will contribute to the development of initial education by promoting reform and providing quality educational offers relevant to the labour market, which is a NDP objective: its activities aim to provide a diagnosis of the doctoral school system, issue recommendations, implement an optimized doctoral school model in the partner institutions, and also create a structure to facilitate cooperation between education, research and business, thus establishing a framework for permanent correlation of the doctoral education offer with the labour market.

The development and modernization of initial education offers, NDP sub-priority, is followed within the project by activities targeting both an improvement of the doctoral school system, by developing interdisciplinary and flexible programs, and a cooperation between higher education, applied research and the business environment, by supporting partnerships between universities, research institutes and private companies.

**- Strategy/priority "More effective development and use of human capital in Romania" National Strategic Reference Framework 2007-2013**

The diagnosis and the improvement proposals for the national system of doctoral studies, the proposed doctoral school model, its piloting and validation, and the tools for the identification of performance and excellence will help increase the quality of the doctoral students and sustain a competitive human capital, both in terms of training and productivity.

The creation of network poles (universities, research centres, business environment) will lead to a more efficient use of the human capital, by applying the results of scientific research with an effect on innovation and long term increase in economic competitiveness, creating the knowledge and skills needed in a modern economy.

**Note:** Cover illustration includes a Wordle design: <http://www.wordle.net/>

