

**EDUCATION AND RESEARCH FOR A KNOWLEDGE SOCIETY**



## I. PREAMBLE

The “Education and Research for the Knowledge Society” Strategy represents the third step of a systematic approach taken by the Romanian Presidency.

On 19 January 2007, the Presidential Commission for the Analysis and Elaboration of Education and Research Policies was established, an expert commission that presented in a report published on 12 July 2007 and entitled *Future Education and Research in Romania* a system-wide diagnosis, as well as the main solutions to the identified problems. On the basis of the Report and further public discussions, the **National Pact for Education** was drawn up, signed on 5 March 2008 by the leaders of all parties represented in the Parliament and subsequently by the Romanian Academy and by representatives of other 22 trade union organisations, student organisations, parents’ associations, and other non-governmental bodies interested in the development of education and research in Romania.

The present strategy refers to education and research development for the period 2009-2015 and is thus founded on two types of approaches: an expertise approach and a major political commitment approach. We know where we stand. Now it is time to clearly state:

- where we want to go,
- what measures must be taken, and
- what actions must be developed in order to attain the proposed targets.

Education and research, however noble, are not activities in themselves; they are means to build a type of society. The question “What should be done with education and research in Romania?” is closely related to another, namely “What kind of country do we wish for?”. The present strategy contains operational solutions for the period 2009-2015, allowing us to build by education and research a **knowledge society** in Romania, the only one that can bring prosperity, sustainable development and personal development for each citizen.

## II. OBJECTIVES

Promoting the **four pillars of a knowledge society – education, research, development and innovation** – does not only involve a priority support of these social activities; it involves, first of all, **a new range of values**. We must ensure that those that are permanently learning, researching, contributing to the development and modernization of institutions or technologies should enjoy the highest level of social prestige. All the measures and actions proposed within this strategy aim not only at a new institutional and legislative commitment, but especially at a new **axiological commitment**, a new hierarchy of values that should make us overcome the axiological disorientation which we have experienced after 1989. We cannot develop in Romania a knowledge economy and society without believing in values such as: learning involves the development and modernization of institutions and technologies, research put at the service of solving the complex problems that we are facing.

**The final objective** of this strategy is the social, real acceptance of a new scale of values, necessary for the consequent achievement of options corresponding to a knowledge economy. We will succeed if these values will be part of our actions, not just part of occasional speeches of various personalities of the day.

According to analyses carried out, we maintain that we can and we must reach by sustained effort, **by 2015**, the following **specific objectives**:

1. **Placing the Romanian students' performances at international tests (PISA, PIRLS, TIMSS) among the first 10 countries in the world;**
2. **Placing at least 3 Romanian universities in the first 500 universities in the world;**
3. **Increasing the scientific production up to 5 times and tripling the global innovation indicator, allowing us to reach the actual EU average for these indicators;**
4. **Lowering early school-dropout rate below 5% (currently 23.6%);**
5. **Eliminating the essential gaps between rural and urban education, between learning opportunities provided to disadvan-**

- taged groups (minority groups, children with special needs etc.) and those provided to the majority;**
- 6. Transforming permanent education into a current social practice at each public or private institution's level. Reaching an increase of 20% of the adult participation rate in permanent education;**
  - 7. Transforming teaching staff into nation's professional elite;**
  - 8. Focusing school on the beneficiary's needs (pupils/students, employers, community);**
  - 9. Assigning at least 7% of GDP for education and research and linking the amount of resources granted to system units to achieved results.**

In order to fulfil these objectives, the following measures and actions are necessary.

### **III. IMPLEMENTATION MEASURES AND ACTIONS**

#### **III.A. PRE-UNIVERSITY EDUCATION**

With regard to pre-university education, we foresee the following measures:

##### **1. Rendering educational cycles compatible with the requirements of a modern education and with the European Framework of Qualifications**

###### *Arguments*

Actual studies show that early education (as well as including a part of it in compulsory education) is the most efficient investment in education. The compulsory preparatory grade creates equality of chances and equity of learning opportunities, optimises adaptation to school requirements and improves school performance during the first grades. Making the 9<sup>th</sup> grade a part of gymnasium reduces the early school-dropout rate, as the greatest dropout rate is being recorded at present during the passage from the 8<sup>th</sup> to the 9<sup>th</sup> grade. Using a computer has become an essential condition for every adult's work and life. As such, acquiring basic competences in

using a computer (**ECDL<sup>1</sup>-Start** level: “Basic notions on information technology,” “Using a computer and organising files”, “Text editing”, “Information and communication”) at the end of compulsory education becomes a necessity. Acquiring **ECDL-Complete**-level competences prior to high school graduation maximises the graduates’ chances on the labour market and their capacity to benefit subsequent learning opportunities. In this respect, the Ministry of Education and Research will provide the necessary infrastructure and equipment, will conclude partnerships with accredited ECDL centres or will create and accredit its own centres.

*Actions*

**1.1. Legislation of a new structure for the education system**

Deadline: 2009.

The state will ensure general and free 13 year-long education, from preparatory grade to high school graduation. Compulsory education will include: preparatory grade + primary education + gymnasium education (including 9<sup>th</sup> grade) and will be finalized by a **Study Diploma** and a **Professional certificate** (which will certify the 1<sup>st</sup> level of professional qualification and the acquisition of computer skills at ECDL-Start level, modules 1, 2, 3, 7 of ECDL). High school education (10<sup>th</sup>-12<sup>th</sup> grades) will take place according to three high school profiles (theoretical, technical and vocational) and will be finalized by: a) **High school graduation diploma** b) **European computer driving licence** (ECDL-Compleat); c) **Professional certificate** (Level 3 qualification – only for technical high schools).

*Table 1. The new structure of educational cycles (1+4+5+3+ Bologna cycles) – synthetic description*

Minimum access age	Grade	EQF levels	Education level	Curricular cycles
		<b>8</b>	Ph.D.	<i>Ph.D.</i>
		<b>7</b>	Master’s degree (60-120 credits)	<i>Master’s degree</i>
		<b>6</b>	Bachelor’s degree (180–240 credits)	<i>Bachelor’s degree</i>
		<b>5</b>	Short cycle/120 credits	<i>Short cycle/120 credits</i>
18	XII	<b>4</b>	High school education (theoretical, technical, vocational)	
17	XI			

<sup>1</sup> ECDL – *European Computer Driving License*. ECDL-Start certifies basic competences; ECDL-Complete certifies advanced competences.

16	X			
15	IX	3	Gymnasium education	<i>Curricular cycle Observation and guidance</i>
14	VIII			
13	VII			
12	VI	2	Primary education	<i>Curricular cycle Development</i>
11	V			
10	IV			
9	III			
8	II	1		<i>Curricular cycle Fundamental acquisitions</i>
7	I			
5-6	PG	PG	PG	
0-5	<b>Early education</b> (nurseries, kindergarten, support programmes for parents, evaluation and early intervention)			<i>Education's prerequisites</i>

*Observation: The 1-year extension of technical high school studies may be foreseen, taking into consideration that the latter are finalized not only by a high school graduation diploma but also by a Level 3 qualification certificate. The EQF levels are taken from the European Qualifications Framework. PG = preparatory grade. Credit award for Ph.D. is optional.*

**1.2. Training teaching staff directly involved in the reorganisation of educational cycles, firstly training pre-primary school teachers/primary school teachers involved in integrating early education and compulsory education, as well as teachers from gymnasium schools that will include a 9<sup>th</sup> grade**

Deadline: 2009-2010.

**1.3. Taking administrative decisions on the placement and necessary endowment for the preparatory grade and for the 9<sup>th</sup> grade**

Decisions will be taken in compliance with local conditions as well as the demographic and economic-social distribution map, in order to satisfy all requirements for the system's quality, equity and efficiency assurance.

Deadline: 2009.

**1.4. Creation of school consortia**

School consortia are contractual agreements between school units from a geographical area (established according to a methodology drawn up by the Ministry of Education and Research). School consortia are created with the aim of optimising the use of education infrastructure, material resources and labour force. Consortia will allow free staff circulation within their limits, vertically (e.g. gymnasium-high school) or horizontally (e.g. high school-high school), so that the

reorganization of curricular cycles would not affect didactic regulations and students' unlimited access to learning resources.

Deadline: 2009-2011.

### **1.5. Endowing all schools with Internet-connected computers**

Once the new school network established, following geographic and community lines, schools will be fully endowed with Internet-connected computers and with educational software capable of increasing teaching and learning quality.

Deadline: 2010.

## **2. Reforming curriculum and evaluation procedures**

### *Arguments*

Contemporary research in learning sciences, as well as educational system's beneficiaries, support a curricular focus on competences, not on information. Competences are sets of knowledge, skills and attitudes that improve problem solving. The strategy specifies the key-competences that the educational system should be based on. They are compatible with the competences promoted at the European Union's level and ensure learning flexibility. Taking into consideration the evolution of students' minds and the facilities provided by ICT, all curricular content must be digitalised and a School Virtual Library must be established, so that the best learning resources should be accessible to every student at any time.

The curricular reform automatically involves a reform of the way students are assessed. An evaluation methodology that is incompatible with the new curriculum would create a parallel curriculum. Students will rather learn what will be evaluated than what is established in the curriculum. The strategy supports an evaluation congruent with school cycles, focused on competences, which should provide real feedback to students and form a platform for individual learning curricula.

### *Actions*

#### **2.1. Focusing curriculum on 8 categories of key-competences**

These 8 categories of key-competences are the following:

- a) Communication competences in the native language and in two internationally spoken languages;
- b) Basic competences in mathematics, sciences and technology;
- c) Digital competences (of using information technology for knowledge and problem solving);
- d) Axiological or valorisation competences (necessary for an active and responsible participation to social life);
- e) Competences regarding the management of personal life and career advancement;
- f) Entrepreneurial competences;
- g) Cultural expression competences;
- h) Lifelong learning competences.

Compulsory education graduates will acquire these competences at basic level, and high school graduates – at advanced level. On the basis of these competences, the instruction profile will be clearly established (= what do we want the student to know) for each study cycle. For each discipline within the educational curriculum, the learning content shall be organised so as to contribute altogether to the creation of the above-mentioned competences. The main evaluation and approval criteria for a schoolbook will be related to the extent it contributes to the creation of given competences.

A bank of items will be created, having a guiding function, in order to help teachers to assess competences, and not information, while assigning marks.

Deadline: 2009-2010.

**2.2. Introducing the subject 'Information and communication technology' (ICT), as optional subject in 1<sup>st</sup>-4<sup>th</sup> grades and as compulsory subject in 5<sup>th</sup>-8<sup>th</sup> grades.**

This subject has the function of developing the necessary competences for ECDL-Start and ECDL-Complete levels. Mastering ICT competences provide favourable conditions for lifelong learning and for professional career development.

Deadline: 2010.

**2.3. Curriculum flexibilization**

Curriculum flexibilization will be carried out on two levels:

a) by increasing the percentage of class hours within the curriculum at the school's disposal (CSD);

b) by increasing teacher's freedom to implement curriculum within each subject.

The CSD share within the curriculum will be 20% at compulsory education level and 33% at high school level. What will be learnt in 1/5 of compulsory education hours and 1/3 of high school hours will be decided at each school's level, according to student learning needs, not to teaching staff needs. Schools will be thus able to **focus on students** and on community's needs but also to **be different** from each other according to coursework offered to beneficiaries.

At the same time, a curriculum flexibilization within each subject is needed. The national curriculum will only cover 75% of the teaching hours, leaving at teacher's disposal 25% of the time allocated to the respective subject. According to students' characteristics and to their school's strategy, teachers will decide if 25% of the time allocated to the subject will be used for remedial learning for children with special needs, for consolidating knowledge or for stimulating those capable of higher performances. For the first time, curricular flexibilization will allow the teacher to carry out **individual learning curricula** for each student. **Curriculum flexibilization will bring about learning individualisation.**

Deadline: 2009-2011.

#### **2.4. Digitisation of curricular content and creation of a Virtual School Library**

All content that must be learnt in school, all working instruments, guiding examples of knowledge verification tests will also be converted into digital format and will be permanently accessible to each student or teacher, on a LMS-type (*Learning Management System*) on-line learning platform. The best teachers' classes will be digitally processed and recorded on the e-learning platform. Via Internet, each student will thus have access to the best teacher's classes. "Virtual laboratories" will be created in order to compensate and/or complete school labs' endowment. For each discipline, a digital resource database will be created, allowing each teacher or student to have rapid and free access to all necessary information and instruments for an efficient learning. The creation of digital learning content (*e-content*) will become a professional performance criterion for teachers. The digital curriculum and Virtual School Library will be permanently developed, observing quality requirements and international standards (e.g. SCORM, 2004).

Deadline: 2009-2011.

#### **2.5. Training teachers and school managers for managing and implementing new curriculum**

Focusing curriculum on competences, increasing considerably curricular flexibility, introducing ICT as a subject, and digitizing curriculum are potentialities that risk remaining poorly applied without an adequate training of teaching staff and school managers. Instruments for analysing learning needs, for analysing student characteristics, for designing and assessing a decentralised curriculum must be created and placed at the disposal of schools, managers and teachers, in order to allow the new curriculum to provide maximum cognitive gains for the students.

Deadline: 2009-2011.

#### **2.6. Modernisation of evaluation procedures**

School evaluations practiced until now in Romania have a series of major deficiencies: 1) we tend to evaluate memorised information rather than acquired

competences; 2) there is no connection between evaluations' sequence and curricular cycles of competence acquirement; 3) evaluations are only used to establish rankings, instead of being mainly used to offer feed-back to students and parents and to create individual learning curricula. Moreover, their overcharging by teachers and parents generated more and more frauds and corruption. Maybe more serious than anything else, the selection of a number of subjects from the National Curriculum (compulsory curriculum) and their publication on the Internet, have completely dynamited the national curriculum, creating a parallel curriculum. Why teach as a teacher and why learn as a student subjects that are not evaluated by tests? The evaluation subjects must be identical to those in the curriculum.

In order to succeed, the curricular reform must necessarily be associated to a reform of evaluation procedures, based on the following principles:

(1) Current and periodical evaluations take less into consideration information memorisation, but rather acquired competences;

(2) Each competence acquisition cycle (=curricular cycle) is associated to a type of periodical evaluation;

(3) Periodical evaluations are finalized by a score obtained by the student, as well as by:

a) a **detailed report sent to the parent/tutor** concerning the student's school situation and adequate advice for parents/tutors;

b) an **individualised learning curriculum**, for recovering (for children with learning deficiencies), accelerating (for gifted children) or consolidating acquired knowledge;

(4) There are no separate subjects for exams, others than the curriculum subjects. **All** subjects within the National Curriculum are evaluated, thus avoiding the emergence of a parallel curriculum which would disregard the national one;

(5) None of the two national evaluations (at the end of compulsory education and high school-leaving examination) shall be completed by binary decisions of "accepted/rejected" type, but by a score similar to the PISA tests, to show the student's personal performance compared to national curriculum requirements;

(6) An instrument for comprehensive evaluation and monitoring of students will be created, called the student's **Education portfolio**. The latter will include not only the results of periodical evaluations but also evaluation reports, individualised learning curricula, teachers' or school counsellor's notifications with concern to the student, diplomas and certificates obtained by students from other accredited bodies than their own school, proving their skills or special achievements. The students' one-dimensional evaluation on the sole basis of grades obtained by school subjects must end. The **Education portfolio** will ensure a much more complex and realistic evaluation of the student. The **Education portfolio**, in its classic and electronic format, will be automatically transmitted from an educational cycle to another, forming the student's multi-axial, comprehensive knowledge and evaluation basis. The structure and establishment of the **Education portfolio** will be the object of an Order of the Minister of Education.

Deadline: 2009-2010.

The structure and characteristics of school evaluations will be organised as follows:

- i. **At the end of the preparatory grade**, the responsible teacher draws up an **Evaluation report** of the child's cognitive, emotional and social competences, based on a specific methodology;
- ii. **At the end of the 2<sup>nd</sup> grade** – the end of the basic acquisition cycle (writing-reading, mathematics), each school carries out the basic acquisition evaluation, according to a methodology established by the Ministry of Education and Research. The evaluation results are used for the individualisation of learning curricula by the end of the 4<sup>th</sup> grade for each student and for a detailed **Evaluation report** to the parents. The evaluation results should be registered in the student's **Education portfolio**;
- iii. **At the end of the 4<sup>th</sup> grade**, the Ministry of Education and Research will carry out, by sampling, an evaluation at national level. The evaluation will be based on the national curriculum and will have items built similarly to those from PIRLS and TIMSS international tests. The main purpose of this evaluation is to obtain rigorous information on the primary education performances and the remedial policies that

should be implemented. Schools may also decide, based on their own methodologies, upon using other methods of evaluating their 4<sup>th</sup> grade students;

iv. **At the end of the 6<sup>th</sup> grade** (the end of the “Development” curricular cycle) all schools, following a methodology established by the Ministry of Education and Research, will carry out student evaluations by means of two trans-curricular examinations:

- language and communication (Romanian language and a foreign language),
- mathematics and science.

The evaluations' results will be used for the elaboration of a detailed report to the parents, for the school guidance towards a certain type of high school and for the individualisation of learning curricula for the following years of study. Schools and students will therefore have the possibility, during 7<sup>th</sup>-9<sup>th</sup> grades (“Observation and guidance” curricular cycle) to remedy ascertained deficiencies and guide the students towards the most suitable type of high school/career. The evaluation results, together with the individual learning curricula, should be registered in the student's Education portfolio.

v. **At the end of the 9<sup>th</sup> grade** (the end of compulsory education and of the “Observation and guidance” curricular cycle) will take place a **national compulsory trans-curricular evaluation** of all students. The evaluation will have four elements:

- 1) Evaluation of communication competences in the **native language and in two internationally spoken languages**. The evaluation tests will verify the acquisition level of national curriculum and will have items built similarly to those from PISA tests. These tests will be referred to the performance levels within the **Common European Framework of Reference for Languages**, so that the results obtained by students may be used anywhere in the EU;
- 2) Evaluation of competences in **mathematics and science**. The test will be based on the national curriculum in mathematics and science and will have items built similarly to those of PISA tests;

- 3) Evaluation of ICT-using competences at ECDL-Start level, by means of a practical test;
- 4) Evaluation, by means of ratings, of other key-competences by the main teacher, the school counsellor and the teaching staff for the respective class, on the basis of results obtained during the gymnasium cycle.

The results obtained by students will be expressed in points (components a and b) or ratings (components c, d), in order to reflect the level attained by each student in acquiring key-competences. **There will be no binary grouping of results of the “received-rejected” type.** The details of the national evaluation at the end of compulsory education will be the object of a specific methodology.

Compulsory education graduates will obtain:

- a) a **compulsory education Graduation Diploma** – with a Diploma supplement, which will include scores and ratings for all tests evaluating key-competences;
- b) a **Professional Certificate** which will include acquired competences according to ECDL-Start.

The Study Diploma (with Diploma supplement), the Professional Certificate and other relevant documents concerning students' skills and performances are included in the **Education portfolio**.

All high school graduates will be able to attend high school education free of charge. High schools enjoy autonomy in setting specific entrance criteria for students, if the number of candidates is higher than the number of places offered. The state will cover all high school tuition costs for children coming from rural environment or from disadvantaged social-economic groups.

vi. **At the end of the 12<sup>th</sup> grade** (end of high school) will take place **the second national evaluation: the high school-leaving examination** (*bacalaureat*) – on a differentiated basis, according to the high school's profile:

- a) Three types of tests will be established, according to the **main** types of competences developed by each high school profile. Tests are

based on the entire curriculum associated to the respective competences and will have a strong trans-disciplinary character;

- b) On the basis of a methodology established by the Ministry of Education and Research, the main teacher, together with the school counsellor and the teachers assigned to the respective class during high school, evaluate, by means of ratings, the achievement level of other key-competences attained by each student;
- c) During 12<sup>th</sup> grade, examinations will be foreseen in order to obtain the European Computer Driving Licence (ECDL-Complete).

High school graduates will be awarded:

- a) a **High school graduation diploma** with a **Diploma supplement**, including the general high school graduation average, the score for each test of the high school-leaving examination, and the ratings for key-competences;
- b) an **European Computer Driving Licence** (ECDL-Complete). Graduates of technological and vocational high schools will also receive a **Professional certificate** – level 3 of professional qualification.

These documents, together with other relevant documents concerning student skills and performances during high school, will be included in the **Education portfolio**.

Schools where students do not succeed in obtaining acceptable results are assisted for two school years with adequate means and resources in order to correct deficiencies. In case of failure, the teaching staff within the respective schools will be re-evaluated and penalized accordingly. In order to ensure education quality, the Ministry of Education and Research and the local authorities may decide upon dismantling a school and redistributing its students to more competitive school units, providing all necessary logistics.

Deadline: 2009-2012.

### **3. Accelerating decentralisation in the context of quality assurance.**

*Arguments*

The decentralisation process, the process of bringing decision as close as possible to where the basic activity takes place, must be accelerated. The decentralisation success depends to a great extent on two requirements that should be observed: (1) decentralisation must aim at all aspects of the educational process: curriculum, human resources, financing and administration; (2) decentralisation must contribute to the reinforcement of quality assurance mechanisms. **Decentralisation is not a purpose in itself; it makes sense if it renders the system more efficient, more relevant, more equitable and qualitatively better.** The state will foster competition within the educational system, by all means possible.

#### *Actions*

##### **3.1. Balanced financial decentralisation.**

The educational institution's funding will have four elements:

- a) **Core funding**, which is composed of standard cost/student (pre-school child) + correction coefficients (for minority groups, disadvantaged groups, children with special educational needs). It will fully cover all staff costs, manuals, general endowment and current maintenance. Core funding is granted, via county financial administrations – directly to education institutions, from the state budget;
- b) **Complementary funding**, including investment expenses, major repairs and school network development. Complementary funding is provided from state budget and Local Councils' budgets. The Local Council decides upon distribution of complementary funding to schools, based on their institutional development projects, as well as according to the school network's development needs;
- c) **Additional funding**, including funds from the County Councils (rebalancing funds, other funds) and Local Councils, which establish their scope and destination;
- d) **Auto-financing**, funds directly obtained by the educational institution, which are managed according to its own decisions.

Each educational unit draws up a draft budget, based on a methodology established by the Ministry of Education and Research and approved by the Local Council. The education institution is responsible for budget execution.

The above-mentioned financing structure assures an increased autonomy of educational institutions, but also additional responsibilities. It also takes into consideration studies in the field showing that, when it comes to local or county school **network**, the best grounded decisions are taken at local and county councils' level, not at educational institutions' level.

Deadline: 2009-2012.

### **3.2. Decentralisation of decisions regarding human resources.**

All decisions concerning staff employment, motivation, career development, continuous training and dismissal, will be adopted at the educational institution's level, based on a methodology established by the Ministry of Education and Research, which will intensify the quality control procedures in human resources. Managers will be hired following an examination, according to specific methodology, by the school's Board of Directors. The Board of Directors will include: 1/3 school's teaching staff members, 1/3 parents' representatives and 1/3 – Local Council's representatives. The manager concludes a management contract with the Board of Directors. In case of non-fulfilment of the management contract, the manager may be dismissed at the initiative of 1/3 of the Board members, by simple majority vote.

**The school manager cannot be a member of a political party.**

Deadline: 2009-2011.

### **3.3. Decentralisation of administration and curriculum.**

Most of administrative decisions should be taken at school level. The School County Inspectorate will have functions of:

- a) guidance, control and formulation of specific criteria regarding quality assurance,

- b) court of appeal for all relations between education institutions and their employees,
- c) resource centre for the school network at county level.

The Ministry of Education and Research will focus primarily on elaborating policies and strategies and assuring efficiency, equity, quality and relevance of the educational system. The national curriculum is established by the Ministry of Education and Research, and decisions belonging to CSD and curricular intra-discipline flexibility are taken at educational unit level.

Deadline: 2009-2011.

#### **3.4. Training human resources for the decentralised management of education units**

Training human resources (school managers, accountants, technical staff) is urgent and represents an essential condition for a successful decentralisation process. Decentralisation without professionalisation of school unit management will fail.

A Resource Centre for School Unit Management will be created, available online, in order to provide permanent assistance, good practices and instruments for the decentralisation process.

Deadline: 2009-2012.

#### **3.5. Fostering competition for quality**

Competition, together with financing and continuous training, represents a decisive factor in increasing education quality. The Ministry of Education and Research will fund special programmes for three types of competitions:

- a) **Competitions between schools.** These competitions will be based on the institutional evaluation of each education unit. Schools will be assessed according to two major axes: **inclusion** and **performance**. As a result of evaluations on each of the two axes, a 5-level school classification will be carried out ("Excellent", "Very good", "Good", "Satisfactory", "Unsatisfactory"). Schools with excellence in inclusion, as well as those with excellence in

performance will be substantially awarded. Schools that are evaluated as "Satisfactory" or "Unsatisfactory" will be subject to severe monitoring and assistance, bearing adequate decisions.

- b) **Competitions between teachers.** Following a specific methodology, schools will appoint a **Teacher of the year**, as a sign of teaching excellence. At county and national level, a **Teacher of the year** will be assigned for each subject within the educational curriculum. Teaching excellence will be substantially rewarded.
- c) **Competitions between students.** National competitions on subjects (*Olimpiade*) will be strongly encouraged. These competitions should be supplemented with Technical-scientific and artistic creation competitions and Sports competitions.

Competition will bring about differentiation and hierarchies, will show where quality is and allow us to know whom to reward and whom to penalise.

Deadline: 2009-2012.

#### **4. Reform of human resources policies.**

##### *Arguments*

Teachers' quality is the main factor contributing to students' school success, and managers' quality – an essential guarantee of proper functioning of an educational unit. In order to have a quality teaching and managerial staff, strong actions are needed in the field of remuneration, training, evaluation and social image reconstruction of the teaching profession and of those practicing it.

##### *Actions*

#### **4.1. Remuneration differentiation according to performance**

To promote the teaching profession, it is necessary to guarantee an average salary in pre-university education equivalent to 1.35 GDP/capita, thus reaching the remuneration average of OECD countries. Teaching staff's remuneration must be carried out on a differentiated basis, according to achieved

performances. A 5-level wage grid will be established, in order to distinguish between excellence performances (level 5) and satisfactory performances (level 1). The teaching staff's class performance will be more important in wage setting than the didactic degree or seniority in education.

Deadline: 2009-2010.

#### **4.2. Creation of a new methodology for evaluating teaching staff**

At the end of the school year, each teacher will be submitted to evaluation.

Evaluation will be based on the following:

- (a) Self-evaluation regarding class performance;
- (b) Evaluation of 3 colleagues from the same speciality (one assigned by the concerned teacher, two by the school's management);
- (c) Evaluation carried out by the school's management.

The final evaluation coefficient, ranging between 1 and 5, will be established by the Board of Directors and will represent the remuneration basis for the following year.

The class performance and the students' learning progress must become the main evaluation criteria for awarding tenure and 2<sup>nd</sup> degree, not the grades obtained by the teacher at examinations on academic subjects. Access to 1<sup>st</sup> didactic degree will be made on the basis of a remarkable scientific or didactic contribution. The didactic degree of **Professor Emeritus** will be introduced, for exceptional performances in the entire career.

Deadline: 2009-2010.

#### **4.3. Increasing the quality of initial and continuous training**

The following decisions are urgent:

- a) Establishing access criteria to the teaching career, by means of a methodology established by the Ministry of Education and Research. For example, we consider that a student who did not pass his/her exams cannot be accepted for initial training courses by the Teaching Staff Training Department.

- b) Encouraging the teaching staff's continuous professional training market by the accreditation of more training providers, on the basis of rigorous accreditation and external evaluation criteria;
- c) Periodical training of ICT competences, ECDL-Complete level, for all teaching staff within the educational system, **within 2 years at the most**;
- d) Continuous training programmes for teaching staff, such as *e-learning* and *blended-learning*. Creation of a virtual **LMS-type** platform for the continuous training of teaching staff.

Deadline: 2009-2011.

#### **4.4. Initiation by the Ministry of Education and Research of media campaigns for the revalorisation of school and teaching career**

The image of school and teaching career in the society is unfortunately increasingly unsatisfactory. It is necessary to promote, using media channels, good practices in schools, as well as teachers and schools with remarkable achievements. The new realities in the Romanian educational system must be presented in the media as they evolve.

Deadline: 2009-2015.

#### **4.5. Recognition of non-formal and informal learning**

Finalising procedures and conditions of recognising non/informal learning carried out by teaching staff would offer the latter new opportunities for career development, would decrease the number of unqualified personnel in the system and would correct many injustices. For example, at present, primary school teachers who are pedagogical high school graduates are much worse remunerated than primary school teachers who are university graduates or elementary schoolmasters, although their teaching performance in class is often superior to higher education graduates' performance. By recognizing non/informal learning we will achieve a better correlation between competences and remuneration.

Deadline: 2009-2011.

#### **4.6. Professionalisation and depoliticization of managerial careers in education**

The management of education institutions becomes an increasingly complex activity. It is a profession in itself, not just a simple function temporarily fulfilled, after classes, by a teacher. **It must be fully depoliticized.** Occupational standards will be drawn up for all managerial positions within the education system, from school manager to general manager within the Minister. Continuous and initial training will be carried out for the management of education institutions, on the basis of professional standards. A **National Resource Centre**, available on-line, will be established, providing assistance, resources and training programmes for those wishing to become managers. School units' managers or directors will be subject to an evaluation at the end of each school year.

The evaluation will be based on:

- a) auto-evaluation;
- b) evaluation by three different school managers (two being assigned by the County School Inspectorate);
- c) evaluation carried out by the School Inspectorate.

Remuneration will be assigned in conformity with managerial performances. As mentioned before, the education director/manager cannot be a member of a political party.

Deadline: 2009-2013.

## **5. Considering early education as a priority of the educational system**

### *Arguments*

Early education includes all educational activities (including educational therapies) carried out during childhood, from 0 to 6/7 years. Investment in early education is the most profitable of all education investments made by a state and involves the lowest opportunity costs. Competences formed during this period may establish a foundation for acquiring other competences; on the other hand, developmental problems that are not remedied at this age tend to worsen and bring about major behavioural disorders and inadequate valorisation of subsequent learning opportunities. Expert studies show that early education creates equality of chances and that it is the main instrument for reducing early school dropout.

### *Actions*

To implement this measure, a series of indicative actions should be taken.

#### **5.1. Declaring early education as public good by Law, and assuring state funding for early education expenditure**

Funding will be made by vouchers, irrespective of the fact that the child is educated in a public or private nursery/kindergarten. The state should only take into account the quality of the education service, not the type of property/capital of the early education provider. Additionally, new legislation should establish the types of services, the providers' accreditation methods, the responsibilities of all involved institutions and the type of organisation, financing and structuring of the early education system.

Deadline: 2009-2010.

#### **5.2. Elaboration of a new early education curriculum**

The new curriculum will focus on the development of children's cognitive, emotional and social skills and on the precocious correction of developmental deficits. The curriculum must also specify educational activities that have to be carried out in nurseries, as well as a way of making early education compatible with the preparatory grade and primary education.

Deadline: 2009-2010.

#### **5.3. Initial and continuous training of staff involved in early education**

At present, there is no form of staff training to carry out intervention or educational therapy at nursery level. Kindergarten teaching staff must be trained in compliance with new legislation and new curriculum.

Deadline: 2009-2012.

#### **5.4. Establishment of trans-disciplinary early intervention teams**

These teams will consist of physicians, psychologists, and social workers. The teams will assess and assist children at risk, starting from maternity hospital,

and will then carry out their adequate monitoring and assistance. At the level of the best kindergartens, **Resource centres for parents** should be created, in order to provide counselling and assistance to parents of children with special needs. It is also necessary to extend educational and assistance activities to reach the homes of children with disabilities.

Deadline: 2009-2014.

**5.5. Coordinating services provided by the Ministry of Education and Research and those provided by the Ministry of Health and by the Ministry of Labour, Social Solidarity and Family, in order to improve early education services**

It is essential to establish a single ministry accountable for the coordination of the processes involved in early education, in order to make interventions more efficient and use the allocated budget.

Deadline: 2010.

**5.6. Creating an integrated system of criteria and indicators, as well as a rigorous procedure of data gathering concerning the functioning of institutions and the quality of staff involved in early education**

This way, the early education system would become transparent, and the correction measures will be improved and will be based on field data.

Deadline: 2010-2011.

**6. Strongly encouraging permanent education**

*Arguments*

Concerning lifelong education participation rate, Romania comes in last position in Europe, with a participation of only 1.6%, compared to the EU average of 10.8%. This suggests that, in Romania, permanent learning is rather a figure of speech or the choice of a minority aware of the competitive advantage given by such option than an institutional arrangement, supported by the state. A culture of lifelong learning and education is missing. Moreover, we do not have an integrated and coherent vision on all types of education and professional training which individuals may access during their entire life. We do not have institutional mechanisms for certifying and validating learning carried out in informal and non-formal contexts, although the creation of such mechanisms was firmly included on the European agenda. There are no specific incentives for individuals or for employers in order to motivate them to participate in lifelong learning, although the state can only gain from a more educated labour force.

### *Actions*

The main actions that must be carried out in this field are the following:

#### **6.1. Drawing up a Law on permanent education**

The Law on permanent education must become the framework law of the Romanian educational system. It must specify all education structures, from the formal ones (early education, compulsory education, high school education, higher education) to those involved in adults training. The Law must provide a clear and stable perspective of the Romanian educational system. It must stipulate the conditions, procedures and mechanisms of equivalence and recognition of formal and informal education.

Deadline: 2009.

#### **6.2. Initiating a media campaign in order to foster participation in permanent education and creation of a lifelong learning culture**

Launching by the Romanian Government of a **programme of co-financing**, up to 70%, of educational and professional development programmes carried out by public and private media may strongly contribute to the establishment of a learning culture.

Deadline: 2009-2015.

#### **6.3. Creating a personal bank account for permanent education for each newborn in Romania**

The account will be opened by the Romanian Government by a deposit amounting to the equivalent of 500 Euro. The child's parents/tutors or other interested natural persons may deposit additional sums in this account, within 500 Euro/year, deductible from income tax. The child will use the account after the age of 16, for strictly educational purposes, clearly stated by Law. The existence of such an account, as well as its increase by fiscal deductions may substantially contribute to the development of a learning culture in our society.

Deadline: 2010.

#### **6.4. Accrediting schools as permanent education centres**

Many schools possess both the human resources and the materials required to provide continuous education and training. They can provide courses for parents, professional development courses, foreign languages courses etc. Based on specific methodology, which will be established by the Ministry of Education and Research and by the Ministry of Labour, these schools may be accredited as continuous training centres, and the resources thus gained would remain at school level in order to financially motivate those producing them.

Deadline: 2009-2015.

#### **6.5. Launching the “School after school” programme**

The programme launched by the Ministry of Education and Research will provide funding and methodologies by means of which education institutions will be able to extend their student activities after classes, thus assuring for 8 hour periods good conditions for learning, recreation, sports, supervision and protection of their own students. By collaborating with Parent associations, schools can provide after classes different remedial learning activities for children with learning deficiencies or learning acceleration activities for gifted children.

Deadline: 2009-2015.

### **III. B. HIGHER EDUCATION AND RESEARCH**

Regarding higher education and research, we take into consideration the following measures:

#### **7. University differentiation and resource concentration**

##### *Arguments*

The Romanian higher education system is not differentiated according to quality criteria, fact that did not allow a concentration of human, material and financial resources in top universities, an essential condition for attaining an excellence level. Differentiation on the basis of quality criteria has to be carried

out at all levels: between institutions, between programmes and between departments/chairs within each university. Public funding will be granted with priority to institutions, programmes and departments demonstrating high quality performances. Academic mediocrity can no longer be supported with public money.

#### *Actions*

### **7.1. External evaluation of all public and private higher education institutions**

The purpose of this evaluation will be to differentiate between universities, according to output and process quality. The results of evaluations will be published and will inform the Government for future adequate decisions. **Public universities** that are not satisfying minimum functioning standards will no longer receive public funds, going into bankruptcy or being absorbed by the more competitive ones. **Private universities** that do not perform at minimum standards level will lose the right to have their diplomas recognised by Romanian state institutions. They will no longer be a part of the national higher education system, and the issued diplomas will not be recognised by the Ministry of Education and Research or by the Ministry of Labour, bearing all the consequences related to wages and labour market employment. The Ministry of Education and Research will create an institutional development fund, which will be exclusively granted to the best-placed universities, either public or private. In order to implement these options, accredited higher education institutions will be evaluated by RQAAHE and NURC (National University Research Council), based on strict criteria and measurable performance indicators, in order to be ***differentiated and graded in 4 categories:***

- a) intensive research (offering the following degrees: Bachelor's degree + Master's degree + Ph.D. + post-doc, focusing on gradual and post-gradual study programmes),
- b) education and research (Bachelor's degree + Master's degree),
- c) education (Bachelor's degree),
- d) vocational (military, arts, music, physical education and sports institutes).

Deadline: 2009-2011.

## **7.2. Evaluation of distance higher education**

During 2009-2011, on the basis of a special and internationally relevant methodology, RQAAHE will assess all distance higher education networks and field branches of accredited universities, with the purpose of re-accreditation. As a result of re-accreditation processes, universities that offer distance-learning programmes should create a specific department, responsible for distance learning. At the same time, at national level, a Methodological Centre for Distance Higher Education will be established, attached to RQAAHE and using own funds, with the aim of elaborating instruments and guides for the development of the quality of distance higher education.

Deadline: 2009-2011.

## **7.3. Evaluation and ranking of study programmes**

Study programmes are easier to compare and to rank than institutions. According to specific methodologies, approved by Government decision, study programmes within the same study programme will be compared and differentiated at national level. Ranking results will be made public. Top-level study programmes will receive priority funding by study grants. Low quality programmes from public universities will no longer receive public funding for student tuition.

Deadline. 2009-2012.

## **7.4. Universities will proceed to the evaluation of departments / chairs and to their classification following 5 performance levels, according to a methodology established by the Ministry of Education and Research**

Rectors, by means of the institutional contract concluded with the Ministry of Education and Research, become directly accountable for allocating institutional resources, prioritizing the most competitive departments/chairs. Less competitive departments/chairs will be submitted to rigorous monitoring for 2 years, and will be liable to be dismantled if they do not significantly improve their performances.

Deadline: 2009-2011

### **7.5. Establishment of the Romanian Institute for Advanced Studies (ISAR)**

The Romanian Government, together with the Presidency and the Romanian Academy, will establish ISAR. Its main purpose will be to provide the institutional framework for the scientific Diaspora and top researchers in Romania to develop joint scientific projects and study programmes (Master's degree, Ph.D., post-docs), in very important scientific fields.

Deadline: 2011.

## **8. Reform of human resources policies**

### *Arguments*

Human resources are the main factor behind the excellence of a university. After 1990, universities benefited from a large autonomy concerning human resources management. Unfortunately, except for several excellence clusters, rather due to personal skills than to institutional policies, the quality of a considerable part of teaching and research staff within universities is very poor. This fact is proved by internal and international statistics regarding quality of publications and number of patents.

### *Actions*

#### **8.1. Ensuring full responsibility and autonomy for universities in defining teaching and research load**

Universities which will be mainly focused on research will thus have the possibility to define loads differently from universities focused on education or vocational universities. Differentiating higher education institutions will remain merely a concept if the latter will not be autonomous in defining their positions' content.

Deadline: 2010.

## **8.2. Ensuring full responsibility and autonomy for universities in selecting, evaluating, motivating, training and dismissing teaching and research staff**

Ph.D. day-students will be automatically appointed as research assistants or teaching assistants, and their scholarships will be doubled, in order to encourage employment within the educational system. The didactic hierarchy will be simplified and any seniority criteria concerning employment in didactic and research positions will be cancelled. Vacancies advertised by universities will be also available to foreign citizens, not only to Romanian citizens. The right to tutor Ph.D. students will be granted beginning with high performance lecturers' level, taking into account that all higher education institutions will be subject to an external evaluation and re-accreditation process in order to have the right to organize Ph.D. study programmes. All decisions regarding the process of hiring lecturers or teachers remain at university level and so does the funding responsibility. Academic freedom will be consolidated and guaranteed by Law. The Ministry of Education and Research will be able to control, at any time, the quality of study programmes and decide to cease public funding for programmes using low quality human resources or breaching academic freedom by university management.

Deadline: 2010.

## **8.3. Actual functioning of a Deontological code at the level of each university. Consolidating the Deontology Commission at the level of the Ministry of Education and Research, having a role of court of appeal in deontology issues within universities**

The Deontological Code and the Quality Assurance Code become appendices of the institutional contract between each university and the Ministry, based on which public funding is granted. The signature of the institutional contract for the following year will depend upon a presentation of reports on **budget execution, quality assurance and deontology observance** that

universities submit to the Ministry following Rector's approval. These reports are made public.

Deadline: 2009-2010.

#### **8.4. Ensuring grant portability**

Applying to grant competitions will be carried out directly by the researcher, and the approval role of the university only concerns its guarantee to provide all necessary facilities to the researcher. The grant is awarded to the researcher, and he/she manages it in compliance with the legislation in force (funding focused on the researcher, not the institution). The researcher's transfer or movement to another institution automatically implies the grant's transfer/movement to the respective university. Focusing grants on the researcher and their portability should increase researchers' negotiation power and should constitute an important factor of institutional innovation and development. Rectors will have to listen and respect the point of view of the best researchers at the university.

Deadline: 2009-2010.

### **9. Promoting a student-centered university**

#### *Arguments*

Universities have to permanently improve the quality of services provided to students. Students will be considered equal members of the academic community, and their rights, obligations and freedoms must be stated in a **Student Code**. Student participation in decision making processes must be real, not decorative, in order to contribute to an increase in efficiency, quality, equity and relevance of higher education. Universities must play an active part in assuring equality of chances, by everyday practices as well as by financial measures. At the same time, Romanian universities have to become attractive for an increased number of foreign students. Internationalisation will bring substantial benefits not only to the university but also to its own students.

### **9.1. The students' rights, freedoms and obligations will be included in the Student Code**

The rights of students, as academic community members, refer to fields such as: equality of learning access and success chances, freedom to participate in any class within their university and in any academic activity of interest, equitable examination, right to use all university facilities, free access to clear, rigorous and detailed information on study programmes and academic staff or on academic quality assurance, right to establish student associations, to be represented in academic institutional decision bodies and to participate in academic decision-making process. Student freedoms aim *inter alia* at the freedom of expression, freedom of association, freedom of political, religious, or other options. The obligations' area concerns learning and examination, participation in activities stipulated by study programmes, observance of institutional regulations. The **Code** should be thus elaborated in order to guarantee a balance between rights, freedoms and obligations. ***The Code is associated with a rigorous institutional system.*** If we want the **Code** to be more than a simple document to be invoked in festive or critical situations, each university should initiate an application and monitoring system for the observance of its provisions.

Deadline: 2009-2010.

### **9.2. Improving services provided to students**

Each university will have the obligation to offer all students career guidance and counselling services, an e-mail account and access to virtual databases (libraries) specific to their field of study, as well as an electronic system allowing them to rapidly visualise their academic record. Relations with the institution, which are now mediated by inefficient and often corrupt secretariats, must be substantially de-bureaucratized. At each faculty level there will be a *Student Relations Office*, functioning as a "single office" for all their issues. At university level, a *Student Relations Department* will be founded, having a similar function at institutional level. The staff employed within these offices and departments will be chosen primarily among students.

Deadline: 2009-2015.

### **9.3. Student participation in decision-making**

Students should become an active component, not only in collective decision bodies (Teaching staff councils, Senate), where their vote is often unimportant, but also within the **executive management** of the institution. At faculty level, the position of **Students' Vice-dean** will be created, and at university level, the position of **Students' Vice-rector**. These positions, established by Law, will be occupied by Master's degree and Ph.D. students and will be remunerated accordingly, having the same statute as the other vice-dean/vice-rector positions. Universities will have to include students in quality assurance and deontology commissions. The students' vice-rector has the obligation to annually present to the Senate a Report on quality assurance and a Deontology report, expressing the students' point of view in this respect. These reports are made public.

Deadline: 2009.

### **9.4. Development of a loan system for students**

The Romanian Government will create a state-guaranteed loan system for students. Loans will not only cover tuition fees but also the cost of living during studies (rent, food, learning materials etc.). The loans should be returned once graduates obtain employment. Interest and main fees will be different according to the graduate's wages. The loan return will be interrupted during any possible unemployment period or if the graduate has serious health problems. The state will be able to grant preferential-interest loans for students coming from the rural environment or belonging to disadvantaged groups, thus fostering access to higher education and ensuring equality of chances. Graduates practicing their profession for at least 5 years in a rural environment will be exempted from 75% of the loan, this part being taken over by the state.

Deadline: 2009-2012.

### **9.5. Internationalisation of studies by attracting foreign students**

The Romanian state will grant a significant number of scholarships for foreign students. These scholarships will be granted only to universities and study programmes fulfilling the highest quality standards, either public or private. Universities may use the entire income obtained from foreign students' education. The Ministry of Education and Research will develop a **Nation-wide Unique Student Registry**, including both Romanian and foreign students who study in accredited universities, to assure a strict control of diplomas.

Deadline: 2009-2015.

## **10. Modernisation of university management and leadership**

### *Arguments*

At present, the internal organisation and structure of universities are strictly regulated by Law; therefore universities cannot configure their internal organisation in compliance with its declared mission and development strategy. A university willing to focus on research and excellence is obliged to have the same department organisation, the same institutional structure as a vocational or an education-focused university. A fundamental management principle is infringed, according to which **the structure of an organisation is established according to its declared strategy**. Currently, universities are free to establish their strategy but they are compelled to accept an imposed internal structure.

Professionalization of academic management is very poor. Generally, each academic, and especially lecturers and teachers, is considered to be able to manage a faculty or a university without any kind of prior managerial training. Unfortunately, practice as well as expert research shows that the lack of managerial skills cannot be compensated by academic qualities, a fact that generates deficiencies at the level of institutional development with every change of deans and rectors.

### *Actions*

### **10.1. Issuing a Law giving universities the right to establish their own structure and organisation for internal processes, on the basis of university autonomy**

The state will periodically assess the quality of services provided by each university and the level of responsibility in using public funding, but will no longer regulate the organisation and internal structure of universities. Universities will be able to choose a structure with powerful departments or several small chairs, a larger or smaller number of faculties within the university, a matrix organisation (by departments and trans-departmental programmes, with financial and decision-making autonomy of the latter) or, on the contrary, a traditional organisation. The structure will follow the strategy; once it has established its development strategy, each university will be able to implement the internal structure which will maximise its chances of success.

Deadline: 2009-2010.

### **10.2. Implementing the managerial system in academic leadership**

The academic peer leadership system (= the leading bodies are elected by collegial vote) proves to be increasingly obsolete. Only 7 of the top 500 world universities continue to operate with a peer leadership. The managerial system, which is based on top-management recruitment and corporate leadership, proves to be more qualified to face the challenges affecting universities nowadays. The managerial paradigm will need at least 3-4 years to be assimilated and will need to be fostered, by all means, by the Ministry of Education and Research.

Deadline: 2009-2012.

### **10.3. Establishment of the National Centre for Higher Education Manager Training**

This Centre will be established by collaboration between the Ministry of Education and Research and the National Council of Rectors, and will act as a managerial training body not only for those in management positions, but also for all academics who consider academic management as a career development option. Thus, the

recruitment pool of adequate staff for higher education middle-management (dean's offices) and top-management (rector's offices, agencies and national councils) will be substantially enlarged. Accumulation of know-how in matters of academic management and leadership will stimulate change. The Centre will function as a resource base and will provide managerial assistance for existing leaderships.

Deadline: 2009-2010.

## **11. Differential and flexible financing of universities. Increasing public accountability of higher education institutions**

### *Arguments*

The academic financing will include 4 categories of funds:

- a) **basic funding** (to cover the standard cost/student);
- b) **complementary funding** (for investments and major repairs);
- c) **universities' own resources** (from tuition fees, research – development – innovation activities, services etc.);
- d) **additional funding** (excellence). Additional funding is granted from public funds in order to foster excellence of institutions and study programmes both in public and private universities.

Public financing and academic autonomy generate an increased accountability level for higher education institutions. The Ministry of Education and Research must set a clear system of sanctions ranging up to dismantling low performance universities that inefficiently use public funds and face quality and professional deontology issues.

### **11.1. Flexible funding by study grants**

The current funding – funding on student equivalent – is non-transparent and inflexible. It is not based on real study costs and universities cannot change it in order to adapt it to their own conditions. Based on a methodology established by the Ministry of Education and Research, universities will establish real costs for studies on each subject. The Ministry of Education and Research will ensure **basic funding** by means of study grants, equivalent to the average cost per student per subject. Study grants will be awarded primarily to those subjects contributing to national sustainable

development and, within the subject, primarily to the best placed programmes. In this way, the state will ensure maximum educational benefit for public money allocated. Universities will have the right to manage incoming grants according to their own regulations. A university willing to foster excellence will be able to accumulate study grants, awarding a substantial amount to remarkable students; thus, excellence programmes will be able to operate with small groups of students. Other universities will be able to choose, for example, to divide the study grant, offering the chance of partial funding to several students. Universities will be strongly encouraged to consider cost reduction measures, any difference between the study grant and real cost remaining available to the university for necessary expenses.

**Complementary funding** is granted only to public universities and only if they have viable institutional development projects. Funding will be carried out according to institutional development projects.

**Additional funding** is only granted to excellence programmes, regardless if they are developed in public or private universities.

Funds obtained from universities' **own resources**, including those from foreign students, remain entirely available to given institutions.

Funding is granted on a multi-annual basis, by study cycles. The result is a funding system which makes academic costs and decisions transparent, which provides flexibility, predictability and uses public money with maximum efficiency.

Deadline: 2009-2011.

## **11.2. Public accountability of universities**

Increased autonomy means increased social accountability. The Law on higher education will set a clear academic accountability for: a) **quality** of management and processes within the university (admission, teaching-learning, research, evaluation etc.); **public funding management**; c) professional **deontology**; d) **student rights and freedoms**. For each of the above-mentioned issues, universities will present on an annual basis a report which will become public and will be posted on the website. The public presentation of these reports becomes a fundamental condition for concluding the institutional contract for the next budgetary year,

therefore for future funding. The Law should also stipulate a system of rewards and sanctions by means of which the Ministry of Education and Research will encourage academic public accountability.

Deadline: 2009-2010.

## **12. Assuring higher education quality and relevance**

### *Arguments*

Education quality and relevance for personal development and for a knowledge economy are the basic criteria for the advancement of Romanian higher education. Quality and relevance assurance measures must be taken at system and institutional level.

### *Actions*

#### **12.1. Creation of a National Higher Education Qualifications Framework**

For each study programme, universities must strictly define the qualification targeted by the programme in terms of competences and learning outcomes. The curriculum will be thus established to maximise the qualification attainment, and the different subject shares in acquiring the final qualification will be reflected in the assigned credit units (ECTS). At national level, the qualifications framework will be established by collaboration between universities, professional associations and employers. The quality of a study programme will be assessed according to the extent the curriculum leads to the formation of the required qualification. Each study programme proposed by a university must be publicly presented, with specifications referring to the academic qualification profile and to the development curriculum, including the academic staff involved in its development. The Ministry of Education and Research will initiate an academic movement for the curricular reconstruction of Bachelor's degree studies. This process will take into consideration the following aspects: updating

teaching material and making it compatible with learning resources within the most competitive European and trans-Atlantic universities, establishing joint and minimum subject cores for each academic qualification, modernising student examination techniques and the final Bachelor's degree examination.

Deadline: 2010.

### **12.2. Quality assurance for Master's degrees and Ph.D.'s**

Master's degree and Ph.D. programmes represent the main weaknesses of Romanian higher education. In order to fix this situation, the Ministry of Education and Research and the universities should urgently carry out the following actions:

- (1) Establishing the professional status of Master's degree graduates (access to high expertise professional positions, wages), compared to Bachelor's degree graduates, by a joint legislative initiative of the Ministry of Education and Research and of the Ministry of Labour;
- (2) Establishing, by Government decision, 4 types of Master's degree diplomas: a) master of science (mathematics, natural sciences and social sciences); b) master of engineering; c) master of arts (humanities, arts and sports disciplines) and d) professional master (vocational). Admission requirements, learning process and final dissertation for acquiring a Master's degree will be specified for each type of Master;
- (3) Accreditation by RQAAHE of all universities capable of carrying out Master's degree and Ph.D. studies. Accreditation will be carried out by study fields, not by Master's degree/Ph.D., thus allowing universities to develop their own Master's degree and Ph.D. programmes in a flexible manner. Universities that are not accredited by RQAAHE for Master's degree and Ph.D. studies will not have their diplomas recognised by state institutions, with adequate remuneration and professional consequences;
- (4) Preferential funding for Master's degree studies in internationally spoken languages and for Ph.D.'s jointly organised with well-known foreign

universities. Masters of business administration, public institutions' management, science and advanced engineering will be also encouraged;

- (5) Establishing partnerships with economic agents and professional associations in order to develop professional Master's degrees, which should directly respond to market requirements. At least 30% of Master activities must be supported by experts in the respective field. Training of teaching and managerial staff must be carried out especially by means of professional Master's degrees.

Deadline: 2009-2010.

### **12.3. Optimising the functioning of the Romanian Quality Assurance Agency for Higher Education (RQAAHE)**

RQAAHE needs a new methodology focused on process and output indicators, an intensive training for evaluators, staff professionalisation and development of institutional capacity. It should become an assistance and expertise provider for the development of quality assurance mechanisms within universities. A **common core of quality indicators and criteria** should be immediately elaborated together with NURC (National University Research Council), NCHEF (National Council for Higher Education Financing), ACPART (National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment) and ANCS (National Authority for Scientific Research). Students should become partners with equal rights in RQAAHE.

Deadline: 2011.

### **12.4. Promoting entrepreneurial practices and culture in universities**

Universities promoting entrepreneurial practices and culture have more chances to adapt to an increasingly competitive and globalised world. Fostering academic intrapreneurship and entrepreneurship must become a major objective for Romanian universities in the following period. By a series of legislative and financial measures, the state will encourage the development of academic entrepreneurial periphery (business incubators, spin-off companies) and will establish a risk capital in order to finance initiatives of economic valorisation of

research – development – innovation results. On the other hand, universities should correlate rewarding systems (salaries, promotions, sabbatical year etc.) with entrepreneurial (intrapreneurial) successful employee outcomes. The matrix organisation (by departments and trans-departmental programmes with decisional and financial autonomy) will increase the academic capacity to approach relevant inter and intra-discipline problems, with great impact on the social-economic environment outside the university.

Deadline: 2012.

### **13. Reorganisation of the research-development-innovation system**

#### *Arguments*

The performances of our research-development-innovation system are modest compared not only to the European average, but also to the neighbouring countries. This fact is equally caused by (financial and human) resource deficit and by defective research management.

#### *Actions*

#### **13.1. Evaluation of research grants carried out only by researchers with internationally relevant scientific results**

Grant evaluation will be exclusively carried out according to international performance criteria. "Equivalence" practices will be fully abandoned. Only individuals with remarkable results, confirmed by internationally relevant patents and publications, may acquire the status of research project evaluators. In this respect, research-funding agencies will proceed to a rigorous selection of evaluators based on criteria that are comparable to European criteria, including as many as possible foreign evaluators. RQAAHE will do the same in evaluating institutional quality.

Deadline: 2010.

**13.2. Reorganisation of the research-development management system by establishing two National Agencies and a National Council for Science Policy (CNPS), based on European and American models**

Both agencies – one focused on research, the other focused on development-innovation, will manage funds and implementation of research programmes. CNPS will establish the framework and priorities of RDI activities in Romania. We will overcome the current situation, where those establishing the research development plan also manage the funds.

Deadline: 2009.

**13.3. Creation of a fiscal mechanism by means of which private companies would be able to donate 2% of the tax on profit for public research institutions**

This mechanism draws upon an existing counterpart, by means of which natural persons may donate 2% of their income tax for the activities of non-profit organisations. The share of private funding to the research budget will thus grow, having multiple beneficial outcomes.

Deadline: 2010.

**13.4. Reduction of fragmentation of the RDI system**

The patrimony of bankrupt public RDI institutions should be privatised only when no other public RDI institution expressed its intention to take over the respective patrimony, within 6 months from a public privatisation notice.

Deadline: 2009.

**13.5. Preventing access to public funds for research of all persons proven guilty of plagiarism, as well as of those who inefficiently administered research funds or who did not obtain significant results attested by publications or patents**

Deadline: 2009.

### **13.6. Total transparency of financing of RDI activities from public funds and public accountability of project managers for project results**

This mechanism will be doubled by a reduction of the bureaucratic process of implementing research grants.

Deadline: 2009.

## **IV. IMPLEMENTATION CONDITIONS**

The successful implementation of the “Education and Research for a Knowledge Society” strategy requires the observance of three fundamental conditions: coordinating implementation actions, enforcing the strategy at Government level and establishing a monitoring mechanism.

**A good coordination of actions is needed above all.** The proposed strategic measures need a rigorous coordination of several types of actions:

- **legislative** actions, elaboration of a Law package: Law on Permanent Education – as framework Law; Law on Pre-university Education; Law on Universities and Teaching Staff Statute;
- **administrative and public policy** actions – reorganising education institutions and redefining relations within them;
- consistent education and research **financing** actions, requiring a minimum of 7% of GDP and efficient use of available European funds;
- **human resources training** actions, in order to ensure that the new legislation will be applied, systemic management will be improved and financing will be used with maximum efficiency and accountability.

**All these actions should be initiated at the same time.** It would be an illusion to think that simply by changing Laws the system will become more efficient or that a new legislation can be applied to the same administrative structures or that simply by increasing funds we will become more competitive. Similarly, human resources of the highest quality but lacking legislative, financial or administrative instruments cannot solve serious systemic issues. The success of the proposed strategy depends fundamentally on the coordination of all types

of actions, generating by their aggregate effect a necessary critical mass for the reorganisation of the system.

**On the other hand, enforcing for the strategy at governmental level is essential.** The Ministry of Education and Research will not be able to complete by itself the implementation of the strategy. A majority of the proposed measures require convergent and coordinate actions from many ministries, such as Education, Labour, Internal Affairs, Finances or Health, thus requiring a commitment of the entire Government and of the Prime Minister. **Enforcing the strategy at Government level by Prime Minister decision becomes compulsory for the success of its implementation.**

**Finally, there is a need for monitoring.** The Presidency or Parliament will have to establish an expert commission in order to monitor the implementation of the strategy, to identify beforehand problems that could emerge and propose solutions for rectifying them. The Commission will periodically submit independent monitoring reports, which will be published.

**Enforced by the Government, implemented as a whole and rigorously monitored, the proposed Strategy maximises our chances to fulfil the objectives that we all want to achieve. It is up to us to decide how our future will look like.**