Approved
by the Government Decision no. 944
of 14 November 2014

EDUCATION DEVELOPMENT STRATEGY 2014-2020 'Education-2020'

I. PREAMBLE

In the Republic of Moldova education is a national priority. Education is a cornerstone in the creation and conveyance of new knowledge and general human and cultural values, in development of human capital, shaping of national consciousness and identity, promotion of European integration aspirations and plays an overarching role in creating preconditions for sustainable human development and building of a knowledge-based society. Quality of education determines, to a great extent, the quality of life and creates opportunities for each citizen to make the most of his/her abilities.

The Ministry of Education proposes changing the emphasis in education in favour of quality of educational process and competencies that young people gain in the process of education. Success of an individual depends on his/her ability to adapt to changes and continuous learning, and the education system shall provide appropriate environment for development of these abilities. Amid the backdrop of global changes and sharp demographic decline, lifelong learning becomes an important concern of the education system.

The Ministry of Education counts on the development of high expectations of the citizens from the education system and relies on their broad involvement in the reform. Education in the Republic of Moldova is first in the rankings describing the level of citizens' satisfaction with the main aspects of social-economic life. The share of people satisfied and very satisfied with the education services accounts for over 50% (Institute for Public Policies, Barometer of Public Opinion, 2001-2012). This perception coupled with poor results at international and national tests, low level of employment of young graduates and poor connection between professional development and labour market requirements, as well as with high rate of informal payments (Institute for Public Policy and the Centre of Sociological Investigations and Marketing 'CBS-AXA', Formal and informal payments paid by parents to pre-university education institutions, 2013) suggests a lack of information of the population about the mission of the education system. The quality of life and the country's economic competitiveness depend on accessibility, quality and relevance of education.

The Education Development Strategy 2014-2020 ‘Education-2020’ (hereinafter the ‘Strategy’) is the main policy document in the field of education. It sets out medium-term objectives and tasks for development of education and defines the priority orientations and directions for development of the Moldovan education system. To achieve an integrated coordination of sectoral strategic planning in education, provisions of the Strategy have been aligned to relevant policy documents, the reforms launched in the education system, and other reforms that in operation terms continue the actions envisaged in the National Development Strategy ‘Moldova – 2020’.

The Strategy is organized on the basis of three pillars: access, relevance and quality. The education system is designed to ensure development of potential of each person and training of a competitive workforce. In this context, the Strategy is result-oriented and addresses problems and solutions both as per education levels and cross-cutting subjects. Many of the problems analysed are linked with each other and do not refer to a single pillar of the Strategy, but are included in a specific chapter to ensure a coherent approach.

Implementation of the Strategy will be organized both on the basis of policy documents and through legislative amendments. The strategic directions and specific objectives set out in the Strategy will be included in the strategic development programmes of the central public authorities, and will be implemented through strategic planning documents at the level of ministries, in particular the Medium-Term Budget Framework (MTBF), the annual budget and the annual action plan. The legislative framework for the strategic directions and the specific objectives provided for in the Strategy is built by the draft Code of Education, which is in line with the Strategy's provisions. The Strategy implementation actions will be funded from the state budget, local budgets, by attracting grants, fund-raising, sponsorships and other legal sources, focusing on the programme- and performance-based budgeting methodology.

II. GOAL, GENERAL OBJECTIVES AND FUNDAMENTAL PRINCIPLES OF THE STRATEGY

GOAL OF THE STRATEGY

This Strategy provides a diagnosis of the current state of the education system in the Republic of Moldova, reveals the key problems of the system, selects and proposes the solutions best suited to solving them so that the education system becomes the key diver of economic and social growth of the country.

GENERAL OBJECTIVES OF THE STRATEGY

This Strategy has the following objectives:

sustainably developed education system able to form an integral, active, social and creative personality – the main divers of human development and social-economic growth of the country;

enhanced access to quality education for all children and young people by delivering a friendly and protective school environment and by consulting pupils, students and parents in the decision-making process;

established priority directions for development of education in the Republic of Moldova and mechanisms for their implementation;

higher efficiency of spending public money invested in education so that available resources are rechannelled to improve learning outcomes, including by investing in teaching staff, educational process and infrastructure of educational institutions;

higher efficiency of the education system, expanded and diversified educational offer by using the opportunities offered by information and communication technologies;

expanded and diversified adult lifelong training system in terms of general training and continuous vocational training, tailored to the needs of individual and to social-economic needs;

structural and qualitative compatibility of national education with the European education area.

PRINCIPLES OF THE STRATEGY

Rigour. The analysis conducted, the solutions proposed and the strategic vision concern each process and component of the education system, so that operationalization of the Strategy leads to full achievement of all proposed objectives.

Reconsideration. Some problems of the education system in the Republic of Moldova have not been solved for more than 20 years, despite successive attempts to improve it all this period of time. The Strategy proposes a new institutional construction based on modern principles and approaches that would also result in changed mentality of stakeholders: teachers, pupils, students, parents, businesses, etc.

Efficiency. The educational processes and the problems revealed are necessarily analysed in terms of how efficiently public funds are invested, as one of the objectives of the Strategy is to maximise quality with the funds allocated for education.

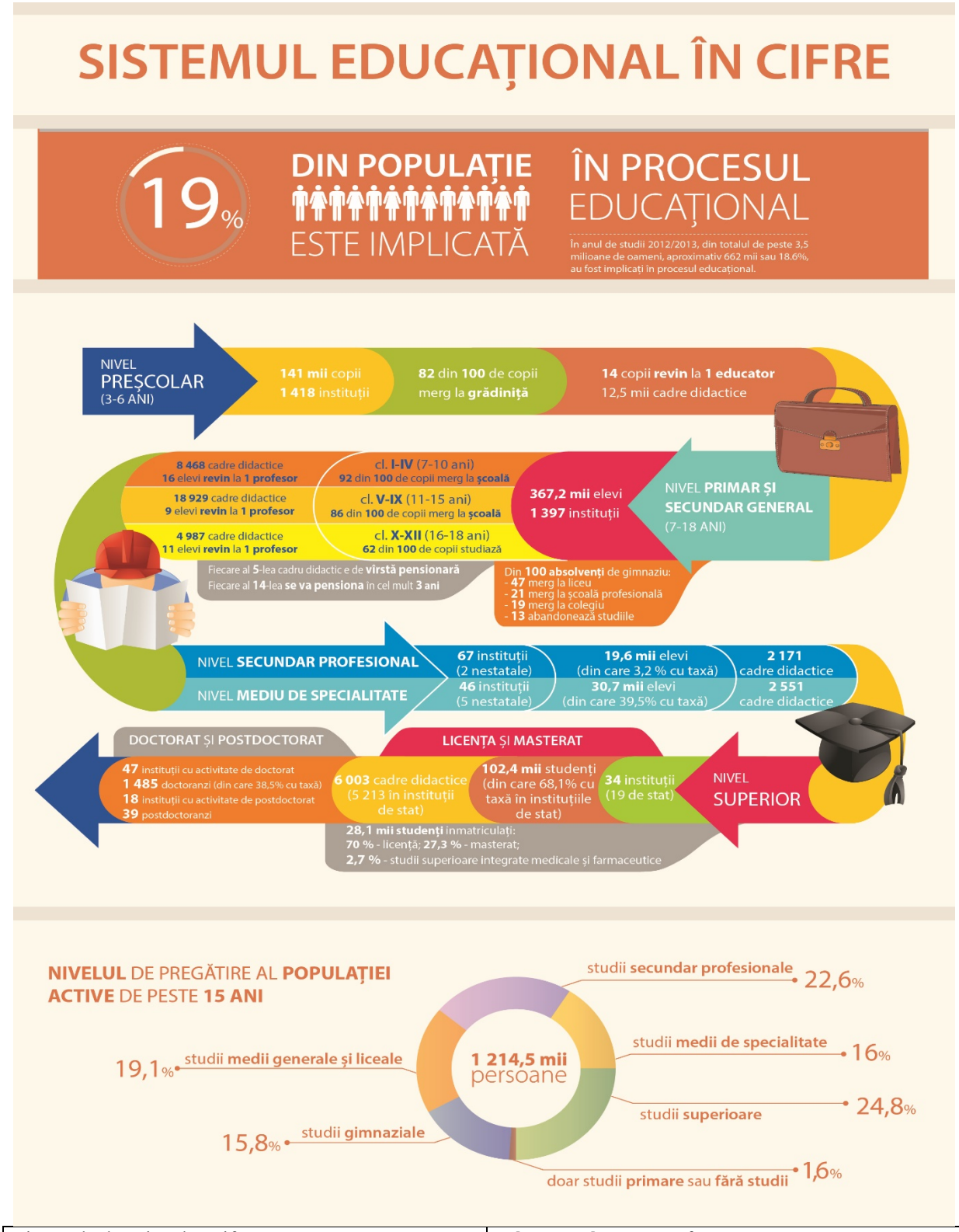
Piloting and reproduction. Many of the proposed solutions have been piloted and the others will be experimented and only those that have proven or

will prove to be viable in the particular conditions of the Republic of Moldova will be selected.

Adaptation. The solutions successfully applied in other countries have been proposed to be tailored to the cultural, economic and social realities of the Republic of Moldova so as to impact as much as possible increase of relevance and quality of educational processes.

Institutional viability. The proposed institutional construction has been analysed in details in terms of functionality, so that responsibilities of each decision-making level in the education system, as well as relations between different types of institutions, based on compliance with the principle of subsidiarity and balance in decisions, is clearly established and delimited.

III. CURRENT SITUATION, REVEALED PROBLEMS AND GENERAL TRENDS

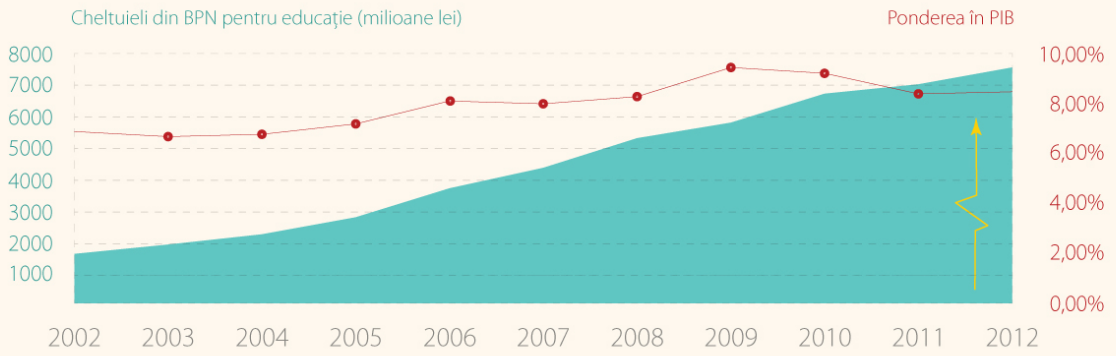


Sistemul educațional în cifre 19% din populație este implicată în procesul educațional În anul de studii 2012/2013 din totalul de peste 3,5 milioane de oameni, aproximativ 662 mii sau 18,6%, au fost implicați în procesul educațional.	Educational system in figures 19% of the population is involved in the educational process In the 2012/2013 academic year, about 662 thousand or 18.6% out of a total of over 3.5 million people were involved in the educational process.

Nivel preșcolar (3-6 ani) 141 mii copii 1418 instituții 82 din 100 de copii merg la grădiniță 14 copii revin la 1 educator 12,5 mii cadre didactice 8468/18929/4987 cadre didactice … elevi revin la 1 profesor cl. I-IV (7-10 ani) 92 din 100 de copii merg la școală cl. V-IX (11-15 ani) 86 din 100 de copii merg la școală cl. X-XII (16-18 ani) 62 din 100 de copii studiază 367,2 mii elevi 1397 instituții Nivel primar și secundar general (7-18 ani) Fiecare al 5-lea cadru didactic e de vârstă pensionară Fiecare al 14-lea se va pensiona în cel mult 3 ani Din 100 absolvenți de gimnaziu: - 47 merg la liceu - 21 merg la școală profesională - 19 merg la colegiu - 13 abandonează studiile NIVEL SECUNDAR PROFESIONAL NIVEL MEDIU DE SPECIALITATE ,,, instituții (.. nestatale) 30,7 / 19,6 mii elevi (din care 39,5% cu taxă) 2 551 / 2 171 cadre didactice DOCTORAT ȘI POSTDOCTORAT … instituții cu activitate de doctorat 1 485 doctoranzi (din care … cu taxă) … instituții cu activitate de postdoctorat …. Postdoctoranzi 6 003 cadre didactice (5 213 în instituții de stat) 102,4 studenți (din care 68,1% cu taxă în instituțiile de stat) … instituții (… de stat) NIVEL SUPERIOR 28,1 mii de studenți înmatriculați 70% - licență; 27,3% masterat; 2,7% - studii superioare integrate medicale și farmaceutice NIVEL DE PREGĂTIRE AL POPULAȚIEI ACTIVE DE PESTE 15 ANI 19,1% studii medii generale și liceale 15,8% studii gimnaziale 1 214,5 mii persoane 22,6% studii secundar profesionale 16% studii medii de specialitate 24,8% studii superioare 1,6% doar studii primare sau fără studii	Pre-school level (3-6 years old) 141 thousand children 1418 institutions 82 out of 100 children go to kindergarten 14 children per 1 educator 12.5 thousand teachers 8468/18929/4987 teachers ... pupils per 1 teacher grades I-IV (7-10 years old) 92 out of 100 children go to school grades V-IX (11-15 years old) 86 out of 100 children go to school grades X-XII (16-18 years old) 62 out of 100 children study 367.2 thousand pupils 1,397 institutions Primary and general secondary level (7-18 years old) Every 5th teacher is reached the retirement age Every 14th teacher will retire in 3 years at most Out of 100 graduates from gymnasium: - 47 go to lyceum - 21 go to vocational school - 19 go to college - 13 abandon studies SECONDARY VOCATIONAL LEVEL SECONDARY SPECIALIZED LEVEL ,,, institutions (… private institutions) 30.7 / 19.6 thousand pupils (of which 39.5% pay a fee) 2 551/2 171 teachers DOCTORAL AND POST-DOCTORAL LEVEL ... institutions with doctoral activity 1,485 doctoral students (of which ... pay a fee) ... institutions with postdoctoral activity .... postdoctoral students 6,003 teachers (5,213 in state institutions) 102.4 students (out of which 68.1% pay a fee in state institutions) ... institutions (... state institutions) HIGHER LEVEL 28.1 thousand of enrolled students 70% - licence degree; 27.3% master's degree; 2.7% - higher medical and pharmaceutical integrated degree LEVEL OF EDUCATION OF THE ACTIVE POPULATION AGED OVER 15 19.1% general secondary and lyceum education 15.8% gymnasium education 1 214.5 thousand people 22.6% secondary vocational education 16% specialized secondary education 24.8% higher education 1.6% only primary education or none

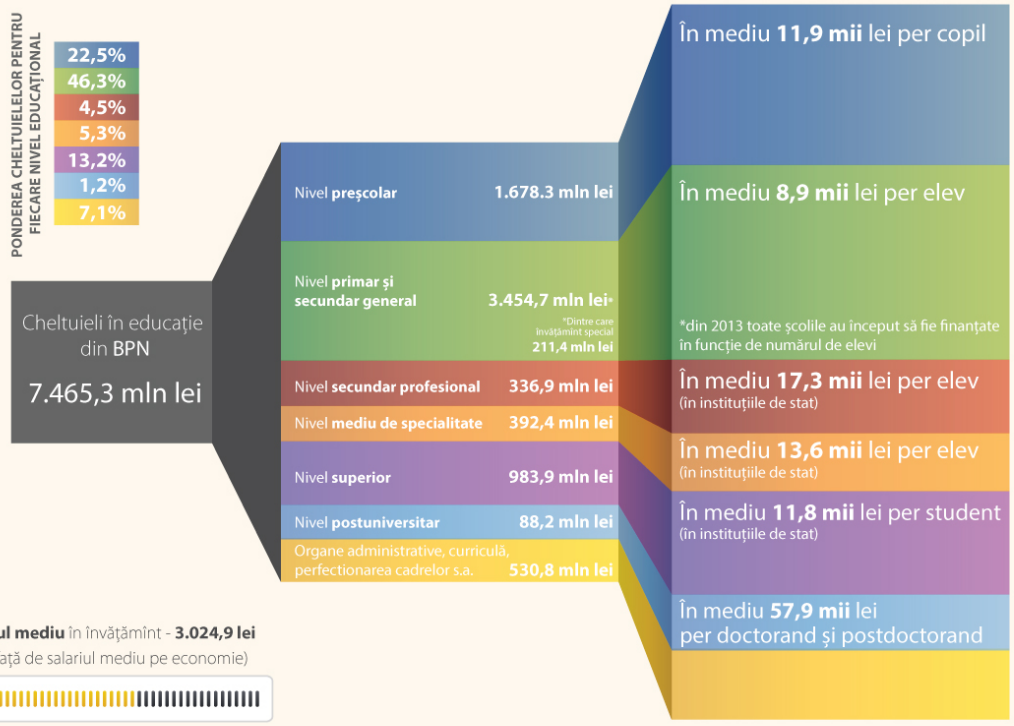
2002-2012

CHELTUIELI DIN **BPN** ȘI PONDEREA ACESTORA ÎN **PIB**



2012

RESURSE UMANE ȘI FINANCIARE



Salariul mediu în învățământ - **3.024,9 lei** (**87%** față de salariul mediu pe economie)

Salariul mediu pe economie - **3.477,7 lei**

Numărul total de persoane angajate în sistem este de 114,3 mii (9.1% din populația activă), dintre care: 59,6 mii cadre didactice și 55,1 mii personal administrativ și auxiliar

Salarizarea pe nivele educaționale (pe post), lei

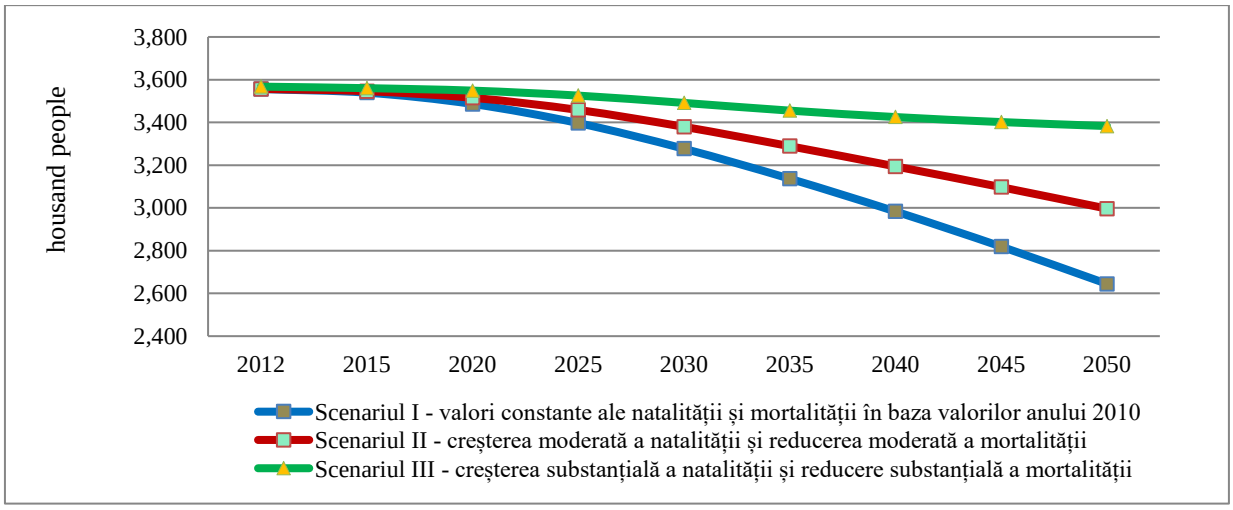
Salariul în sector este direct proporțional stagiului de muncă și gradului didactic al profesorului. Diferențe salariale nu se fac între treptele de învățământ

CHELTUIELI DIN BPN ȘI PONDEREA ACESTORA IN PIB	EXPENDITURES FROM THE NPB AND THEIR SHARE IN THE GDP
Cheltuieli din BPN pentru educație (milioane lei)	Expenditures from the NPB on education (million MDL)
Ponderea în PIB 10,00% 8,00%….	Share in the GDP 10.00% 8.00% ....
RESURSE UMANE ȘI FINANCIARE PONDEREA CHELTUIELILOR PENTRU FIECARE NIVEL EDUCAȚIONAL	HUMAN AND FINANCIAL RESOURCES SHARE OF EXPENDITURES PER EACH EDUCATIONAL LEVEL
Nivel preșcolar 1.678,3 mln lei	Pre-school level 1,678.3 million MDL
Nivel primar și secundar general 3.454,7 mln lei*	Primary and general secondary level 3.454,7 million MDL *
*Dintre care învățământ special 211,4 mln lei	* Of which on special education 211.4 million MDL
Nivel secundar profesional 336,9 mln lei	Secondary vocational level 336.9 million MDL
Nivel mediu de specialitate 392,4 mln lei	Secondary specialized level 392.4 million MDL
Nivel superior 983,9 mln lei	Higher level 983.9 million MDL
Nivel postuniversitar 88,2 mln lei	Post-graduate level 88.2 million MDL
Organe administrative, curriculare, perfecționarea cadrelor s.a. 530,8 mln lei	Administrative, curricular bodies, staff professional improvement, etc. 530.8 million MDL
În mediu 11,9 mii lei per copil	On average 11.9 thousand MDL per child
În mediu 8,9 mii lei per elev	On average 8.9 thousand MDL per student
*din 2013 toate școlile au început să fie finanțate în funcție de numărul de elevi	* in 2013 funding of all schools switched to funding according to the number of pupils
În mediu 17,3 mii lei per elev (în instituțiile de stat)	On average, 17.3 thousand MDL per pupil (in state institutions)
În mediu 13,6 mii lei per elev (în instituțiile de stat)	On average 13.6 thousand MDL per pupil (in state institutions)
În mediu 11,8 mii lei per student (în instituțiile de stat)	On average 11.8 thousand MDL per student (in state institutions)
În mediu 57,9 mii lei per doctorand și postdoctorand	On average 57.9 thousand MDL per doctoral student and post-doctoral student
Salariul mediu în învățământ - 3.024,9 lei (87% față de salariul mediu pe economie)	Average salary in education - 3,024.9 MDL (87% of the average salary in the economy)
Salariul mediu pe economie – 3.477,7 lei	Average salary in economy - 3,477.7 MDL
Numărul total de persoane angajate în sistem este de 114,3 mii (9,1% din populația activă), dintre care: 59,6 mii cadre didactice și 55,1 mii persoane administrativ și auxiliar	The total number of employees of the system is 114.3 thousand (9.1% of the active population), of whom: 59.6 thousand of teachers and 55.1 thousand of administrative and auxiliary staff
Preșcolar Primar și secundar general Secundar profesional Superior Cadru didactic Personal auxiliar Salarizarea pe nivele educaționale (pe post), lei	Pre-school education Primary and general secondary education Secondary vocational Higher education Teachers Auxiliary staff Salary per educational levels (per position), MDL
Salariul în sector este direct proporțional stagiului de muncă și gradului didactic al profesorului. Diferențe salariale nu se fac între treptele de învățământ	Salary in the sector is directly proportional to the length of employment and degree of teachers. There are no salary differences between education levels

The difficult economic transition and demographic decline affect the situation in the education system as well. Although the share of investments in education increases, competitiveness of the economy is still low.

The Republic of Moldova has passed through a difficult transition period. The last two decades have been marked by economic recession, demographic decline, emigration and, more recently, effects of the 2008-2009 financial crisis. Although the economy has grown more than twice since the early 2000s, the GDP per capita at purchasing power parity is still low, making up $ 3,424 in 2012, the lowest in South East Europe (World Bank, http://data.worldbank.org/indicator/ NY.GDP.PCAP.PP.CD). The favourable period of economic growth in 2000-2008 was due to remittances rather than to capital inflows, exports or direct foreign investments (World Bank, Country Economic Memorandum, Moldova - after the global crisis: promoting competitiveness and shared growth, April 2011). Remittances have become a pillar on which the Moldovan economy is currently based and remains an important hallmark of the economic development.

The demographic decline leads to continuous reduction of the population engaged in the educational process. According to the National Bureau of Statistics, demographic trends show reduction of the country's population since the early ‘90s, which in the last decade has reduced by about 60 thousand people, and a constant negative trend of natural growth. This demographic decline is due to falling birth rates, maintained high mortality and massive emigration of young population. Moreover, demographic forecasts based on different scenarios confirm a demographic decline until 2050 (Figure 1). Thus, if until 2050 birth rate and mortality reach constant values equal to the 2010 values (birth rate - 11.4 live new-borns per 1000 inhabitants and mortality - 12.3 deceased per 1000 inhabitants), the population of the country can decrease by about 900 thousand inhabitants, thus making up at the end of the projection period 2,644.6 thousand inhabitants. Given the current reduction of young generations and increase in the share of old people, reduction of school population becomes more obvious.



Scenario I – constant values of the birth rate and mortality based on 2010 values
Scenario II – moderate growth of the birth rate and moderate decrease of mortality
Scenario III – substantial growth of the birth rate and moderate reduction of mortality

Figure 1. Dynamics of population until 2050.
Source: Academy of Sciences of Moldova, based on data of the National Bureau of Statistics.

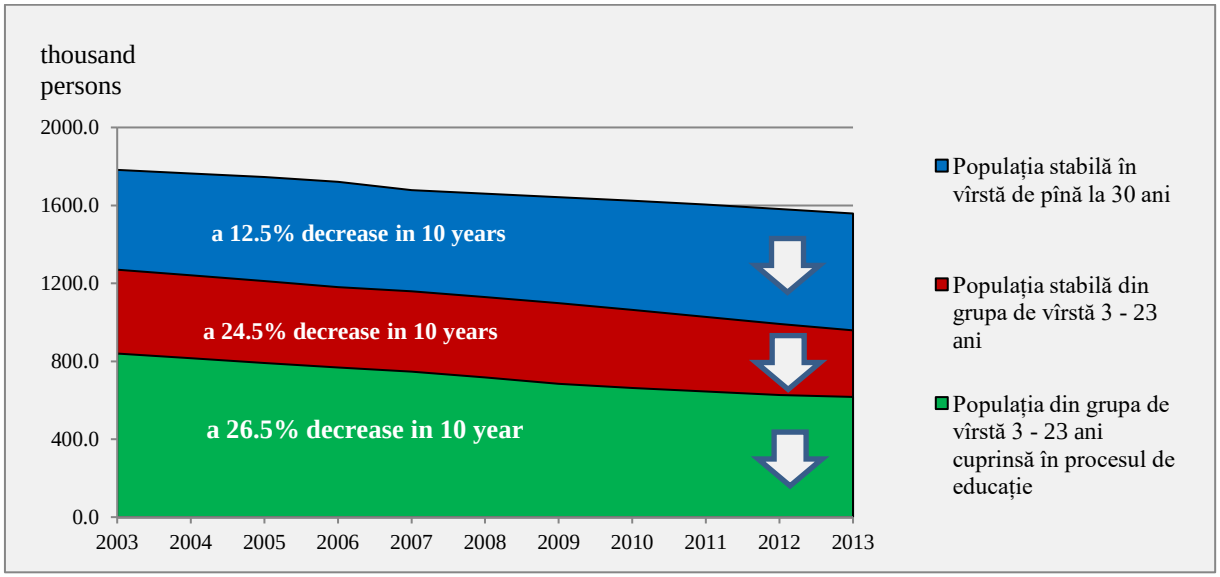
Investments in education do not make competitive the national economy. In 2005-2012, the share of public expenditures on education in the GDP increased from 7.9% to 8.4%. The share of public expenditures per pupil/student in the GDP per capita increased as well, from 34.9% in 2005 to 45.2% in 2012. A part of them is socially-oriented expenditures and cannot be classified as investments in education. In 2012, about 13.5% of the education budget was spent on food, scholarships and maintenance of dormitories (CASE Moldova, funded by UNICEF, Report on exhaustive analysis of budgetary expenditures on social protection in the education system of the Republic of Moldova in 2008-2010 and existing practices in the region to finance education-related costs, 2012). However, expenditures in education steadily increased, but investments made over the last few years failed to cover the needs of a sector that aims to prepare a competitive workforce for a global economy. In the current conditions, a comprehensive and innovative policy approach to education is required.

ACCESS

The demographic decline entails a significant reduction of the population involved in the educational process and creates problems of over-dimensioning of the school network. However there are still problems in accessing certain levels of education.

The demographic decline caused by the negative population growth and the outflow of population abroad lead to a sharp drop in the number of pupils and students. Therefore, in early 2013 the number of stable population aged up to 30

years accounted for 1,558.9 thousand people, i.e. decreasing by 7.1% compared to 2007, and by 12.5% compared to 2003. The population aged 3-23 years reduced by 17.3% compared to 2007, and by 24.5% compared to 2003, and the number of children and young people involved in the educational process (3-23-year-olds) decreased by 14.0% compared to 2007, and 26.5% compared to 2003 (Figure 2) (National Bureau of Statistics, Population and Demographic Processes, 2013).



Stable population of 30 years old
Stable population of 3-23 years old
Population of 3-23 years old involved in the educational process

Figure 2. Evolution of the stable population of 30 years old and population involved in the educational process, 2003 – 2013.
Source: National Bureau of Statistics.

Negative demographic trends create problems of over-dimensioning of the network of educational institutions, in particular, in general education, leading to inefficient use of resources and do not allow investing in upgrading of schools and coverage of their needs. Even if since 1990 the school population halved and the number of schools decreased by 14.6%, access to education is still a problem due to various factors at different levels of education.

Requests of small children to enter the education system constantly increases, but the existing kindergarten network meets only a part of the requests. Discrepancy between enrolment rate in urban and rural areas is maintained.

The number of pre-school education institutions increases, after the sharp decline in the period of recession of ‘90s. In early 2013, there were 1418 pre-school institutions, or by about 6.3% more than in 2007. This increase entailed increased number of children enrolled in these institutions of up to 141.1

thousand children in 2012, i.e. 17.5% more than in 2007. Thus, the gross rate of enrolment in pre-school education institutions increased, making up 82.1% in 2012 compared to 72.6% in 2007. However there are still discrepancies between the rate of enrolment in urban and rural areas, accounting for 29.1% in 2012 compared to 25.2% in 2007 (Education in the Republic of Moldova, statistical publication, 2012/2013) (Table 1). Although a part of these discrepancies can be explained by enrolment of children from rural areas in urban kindergartens, the difference is till significant.

Table 1

Gross rate of enrolment in pre-school education institutions, in %

Year	Gross rate, total	Gross rate, urban area	Gross rate, rural area	Discrepancy
2007	72.6	88.8	63.6	25.2
2012	82.1	100.5*	71.4	29.1

*The rate of enrolment above 100% can be explained by enrolment of children older than 7 years or those coming from places of residence other than urban areas.

Source: National Bureau of Statistics.

Given the importance of early education in further development of children, the Government reviewed the Millennium Development Goals, setting out the following objectives for pre-school education: increased rate of enrolment in pre-school programmes for 3-6-year-olds from 41.3% in 2002 to 78% in 2015, and for 5-6-(7)-year-olds – from 66.5% in 2002 to 98% in 2015, and reduction to less than 5% of disparities between rural and urban areas, among groups of chidden from disadvantaged and middle-income families. As the objective of enrolment of 3-6-year-olds has already been reached, the objective of enrolment of 5-6-(7)-year-olds made up 93.5% in 2012.

Although in the recent years the situation of children's access to pre-school education has improved, the rate of enrolment in kindergartens is still low. According to the Ministry of Education, at the beginning of the school year 2013-2014 about 8,000 children were included in the lists waiting for a place in kindergartens in Chisinau municipality. At the beginning of 2014, 157 settlements did not have kindergartens, or about 9% of the total number of settlements. Development of pre-school education services in villages is difficult because of limited budget or poor management of funds locally, as well as because of poor awareness of importance of investing in child from the earliest age.

According to official data, there are no private pre-school institutions in the Republic of Moldova. In fact, there are private institutions providing pre-school education services, but they are organized as institutions of other type,

such as education centres, public associations, etc. The main constraint in development of private services is flawed legislation, which provides for too harsh requirements for owners and status of the institution's property, as well as rigid sanitation and hygiene standards.

In many settlements where the number of pre-school children is small, opening of community centres for early education solved in part the problem of access to pre-school education. However, parents, especially those from rural areas, see pre-school institutions mainly as child care institutions that provide food, rest and security of children, enabling parents to get a job, and the reduced time of 4-6 hours spent on educational activities of the community centres do not meet the requirements of the parents employed full time. Thus, early education services need to be diversified according to local needs by encouraging development of private services in the field, including at family level.

The rate of enrolment in general compulsory education slightly decreases. Access problems have social and institutional roots, being more emphasized in case of disadvantaged groups. At the same time, the school network is oversized and obsolete, thus leading to inefficient use of resources. The new formula of funding per pupil puts larger schools in an advantageous position and makes resources available for long-term investments. However, in order to ensure that the school budget is used efficiently, management capabilities shall be strengthened and a functional system for accountability of school managers shall be built.

According to the official statistics the rates of enrolment in primary education in the last 4 years are stable, showing a constant decrease of the rate of enrolment in gymnasium education (Tables 2 and 3). In 2012, the gross rate of enrolment in primary education in urban areas accounted for 107.4% and just 86.1% in rural areas. For gymnasium education, these indicators accounted for 96.2% and 81.1%, accordingly. At the same time, the lack of tools for coherent data collection and indicator measurement, as well as of an information system for monitoring and evaluation of the situation in the system, raises serious obstacles for accurate measurement of enrolment and for effective educational management. Development of the Education Information System (EIS), piloted by the Ministry of Education in 2013, will provide data and allow analysing the relevant indicators at school, local public administration and national levels.

Recent studies on the problem of children left out of school and the phenomenon of school dropout revealed a number of children who have not been enrolled in education or do not attend a school. According to the official data of the Ministry of Education, in 2011-2012 about 143 children did not attend a school. Absenteeism is still a cause for increased concern. Recent studies of the World Bank and UNICEF revealed a connection between the level of schooling

and the number of absences. Thus, in the 2011-2012 academic year, each pupil enrolled in primary education was absent on average 24 hours, those in gymnasium education - 65 hours. Significantly, the number of absences is as a whole high in urban areas, while the share of absences without reason is higher in rural areas. Boys are absent more frequently than girls, having a significant number of absences without reason.

Table 2

Gross rate of enrolment in primary education, in %

Year	Gross rate, total	Gross rate, urban	Gross rate, rural	Discrepancy
2007	94.0	100.9	90.5	10.4
2012	93.8	107.4	86.1	21.3

Source: National Bureau of Statistics.

Table 3

Gross rate of enrolment in gymnasium education, in %

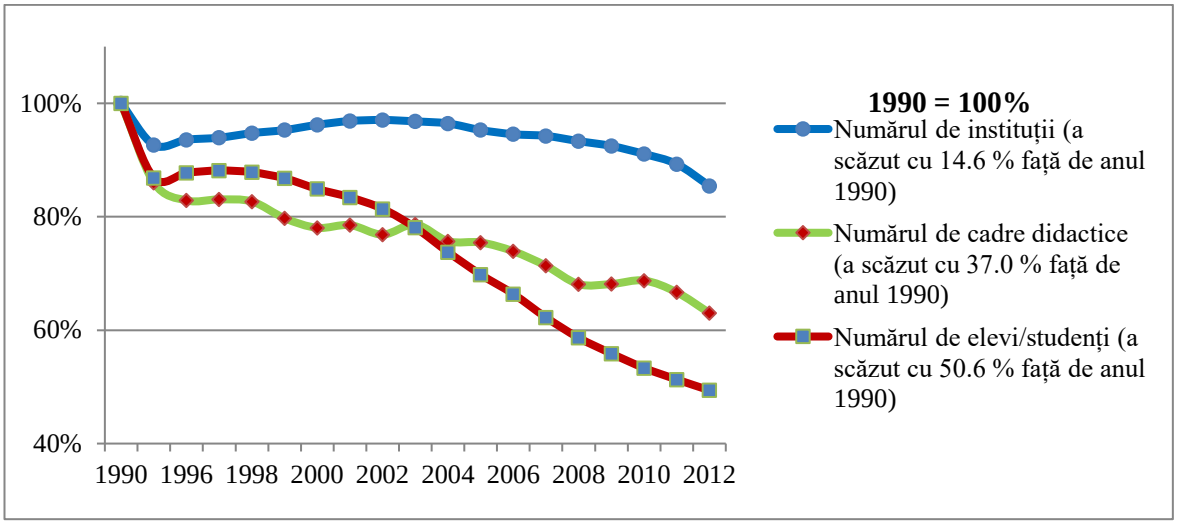
Year	Gross rate, total	Gross rate, urban area	Gross rate, rural area	Discrepancy
2007	90.1	95.4	87.3	8.1
2012	86.7	96.2	81.8	14.4

Source: National Bureau of Statistics.

Fall of the rate of enrolment in rural areas is due partly to enrolment of children from rural places of residence in institutions from urban areas. The main causes of reduction of rates of enrolment in primary and gymnasium education are, in particular, disparities in access between urban and rural areas and income groups, problems of inclusion of children with special educational needs and migration of children for family reunification. However, the relatively low rate of enrolment, especially in the gymnasium cycle, is still a worrying concern. At the same time, there is no clear system of record keeping of school-aged children and accountability of parents, teachers, heads of educational institutions and authorities of local public administrations in children schooling.

General education has an oversized network of schools and inefficient use of their capacity does not allow investing in upgrading of institutions and providing them with adequate equipment. In the period 1990-2012, the number of pupils halved, while the number of school institutions reduced only by 14.6% (Figure 3). The average number of pupils per school decreased from 437 pupils

in 1990 to 267 in 2012. Consequently, in 2005 the Ministry of Education began to reorganize the school network and to set up district schools. In the period 2005-2013, 206 institutions of general education were reorganized. Most of reorganizations consisted in transforming lyceums into gymnasiums or gymnasiums into primary schools. As a result, the phenomenon of decrease in the average number of pupils per educational institution was stopped: the average number of pupils per class increased from 19.2 in May 2012 to 20.0 in October 2012 (for comparison, in 2002-2003 there were 22 pupils per class), and the average number of pupils returning to a teaching position increased from 10.9 in May 2012 to 11.2 in October 2012 (in 2009 the average number in OECD countries was 14.0) (Skills beyond schools, OECD, http://www.oecd.org/edu/skills-beyond-school/48631144.pdf).



Number of institutions (down by 14.6% as compared to 1990)
Number of teachers (down by 37.0% as compared to 1990)
Number of institutions (down by 50.6% as compared to 1990)

Figure 3. Evolution of the number of pupils, teachers and educational institutions
Source: National Bureau of Statistics.

Since 2013, funding of all primary and general secondary education institutions was switched to funding on a standard cost-per-pupil basis. The new way of funding makes possible balancing expenditures per pupil, simplifying and strengthening budget forecasting, increasing transparency in school funding, and extending school autonomy. School autonomy enables administrations of educational institutions to decide on how to distribute the approved funds with due regard to the needs and investment expenditures.

The new funding mechanism promotes efficiency, putting schools with more pupils in advantageous position compared to those with small number of pupils, and motivating local public authorities to reorganize small and inefficient

schools. In the Republic of Moldova small schools are considered those with 41 or less pupils in primary cycle and 91 or less pupils in secondary cycle (Government Decision 728 of 2 October 2012 ‘On funding on standard cost-per-pupil basis with use of adjustment coefficients in the manner established by the Government for the primary and general secondary education institutions funded from budgets of administrative-territorial units’). The average number of pupils per school in these institutions is 23 pupils in primary cycle and 46 pupils in gymnasium cycle.

Although it takes time for the benefits of the new funding formula to be felt, some positive effects can already be noticed. Until implementation of the new funding formula, investments in educational institutions were made in a centralized manner from the state budget, but now all districts and schools with a larger number of pupils have resources for investments. The budget execution analysis for 2013 reveals expenditures of 132.4 million MDL for capital investments from district budget only. Investments were made in 483 schools, including in capital repair of ceremonial, sports halls, class rooms, school canteens, sanitary facilities, dormitories, land plots, etc. (191 schools), replacement of doors and windows (82 schools), capital repair of roof (78 schools), capital repair of heating systems (61 schools). At the same time, a number of larger schools have their own budget sufficient not only for school maintenance, but also for improving the educational process and investments. For example, ‘Olimp’ Theoretical Lyceum in Singerei made capital repairs amounting to 720 thousand MDL, and several gymnasiums and lyceums from Ungheni district invested a total of 1471.2 thousand MDL in replacing windows, provision with equipment, etc.

Infrastructure investments are needed, because the state of buildings in which school units are located are not fully safe so as to ensure protection and health of pupils. According to data of mapping of educational institutions, 41% of school buildings need capital repairs and only in 11.2% of them access ramps can be built for people with limited mobility. Heating of school rooms, especially in rural areas, is so far a stringent problem. About 29% of such schools do not have modern heating systems, seriously affecting the educational process and children's health during the cold period of the year. Most schools do not have centralized water supply systems and sanitary facilities inside. In the absence of a vision on how to optimize the school network, quite low investments made in the last decade were inefficiently focused on schools without development prospects. The Ministry of Education has encouraged projects on building thermal insulation and improvement of efficiency of heating systems for schools.

Implementation of the reform of the residential child care system helped to reduce the number of institutionalized children. It is difficult to include children

with special educational needs in general schools due to both the lack of the required conditions and misunderstanding and reluctance of school managers, teaching staff and parents.

The residential child care system subordinated to the Ministry of Education has 3088 children placed in institutions. The residential system includes 35 residential institutions: 10 boarding schools for orphans and children left without parental care; 1 children's home; 2 senatorial boarding schools for children suffering from neuropsychiatric disorders, diseases of the cardiovascular system and joints; 6 special institutions for children with physical and sensory impairments and 17 additional boarding schools for children with mental disabilities. Most children attend special institutions for children with physical and sensory impairments and additional boarding schools, and the number of these children fell from 4,000 pupils in the 2007-2008 academic year down to 1,700 in the 2013-2014 academic year. At the same time, about 3,500 children with special educational needs benefit from inclusive education in 400 general education institutions, and individual home-based training is organized for about 1600 children, who cannot attend the school for different reasons.

Implementation of the National Strategy on reform of the residential child care system 2007-2012 has contributed to halving the number of institutions, reducing the number of children separated from family by about 62%, and organizing and developing social services for children and inclusive education of children with special educational needs. Deinstitutionalization is based on a comprehensive approach focused on initial assessment of children and their families, development of an individual assistance plan for each child, reintegration of deinstitutionalized children into biological/extended family, development of community and specialized services (professional parental assistance, family-type children’s homes), preparation and transfer of children to social services and integration of deinstitutionalized children into general education institutions. The Regulation on redirection of financial resources as part of the reform of residential institutions (Government Decision no.351 of 29 May 2012 ‘On approval of the Regulation on redirection of financial resources within the reform of residential institutions’) introduced a financial mechanism for rechannelling funds from the residential system to community and family-type services and development of inclusive education.

The problem of inclusion is still at the forefront despite the policies of the Ministry of Education aimed at integrating children with special educational needs in traditional schools. Pupils with special educational needs in inclusion in general education are supported by organizing district/municipal psycho-pedagogical support services and inter-school multidisciplinary commissions, building teams for development and implementation of individual educational plans, employment of supporting teachers and setting up resource centres for

inclusive education at the level of general education institution. However, inclusion is difficult. The key impediments to inclusion are lack of conditions required for integration of these children (teaching staff prepared to work with children with special educational needs, adapted infrastructure and teaching materials), as well as reluctance of some school managers, teaching staff and parents to changes.

About half of graduates of gymnasium education continue their education in lyceums. The 12.8% of graduates remaining outside of schooling have a low employability.

Graduates of gymnasiums may continue their education in lyceums or enrol in secondary vocational and secondary specialized education, which offers the possibility to choose profession or specialty depending on individual interests and capabilities. Thus, almost half (46.5%) of the 38.6 thousand graduates of gymnasium education in 2012, continue their education in lyceums, 21.4% study in secondary vocational education institutions, and 19.2% – in secondary specialized education institutions. The number of graduates of gymnasiums that remain unschooled decreased from 18.7% in 2007 to 12.9% in 2012. Even in these circumstances, given the low employability of these young people, compulsory education shall be extended to complete general secondary education or secondary vocational and technical education.

Secondary vocational and secondary specialized education is not enough attractive for pupils, but expensive for the state. The network of secondary vocational and secondary specialized education institutions is oversized and has an outdated infrastructure, entailing unjustified maintenance costs. At the same time, over 1/3 of the total number of unemployed are graduates of secondary vocational and secondary specialized education. Collaboration between such educational institutions and the economic environment is poor.

Over the last two decades secondary vocational and secondary specialized education became less demanded. In the period 1990-2013, on the background of the demographic, economic decline and expansion of higher education, where the number of students doubled, the number of pupils enrolled in secondary vocational and secondary specialized education decreased by over 57% (from 109.5 thousand to 47.5 thousand people).

In spite of some increased financial allocations, the number of pupils enrolled in secondary vocational education decreased. The total education costs per pupil in vocational and craft schools tripled from 2006 to 2011, and doubled in colleges (Table 4). However, effectiveness of these expenditures is still low – in 2012 the number of unemployed with secondary vocational and secondary specialized education made up 25.1 thousand persons or 37.1% of the total number of unemployed, being higher than the number of unemployed with

higher (15.9 thousand), lyceum, general secondary (15.3 thousand) and gymnasium (10.2 thousand) education.

Table 4

Total education costs per pupil/ student at each level of vocational education for one academic year (MDL)

	2006	**2007**	**2008**	**2009**	**2010**	**2011**
Secondary vocational education	5,399	7,366	8,510	10,224	15,335	16,776
Secondary specialized education	6,979	6,900	8,200	8,709	14,725	15,029
Higher education	4,714	5,050	5,873	6,802	17,861	20,158

Source: IDIS Viitorul, calculations of the Ministry of Education.

Infrastructure of the 67 secondary vocational education institutions is used at only half of the capacity. The average number of pupils per institution in 2013 was 272, while institutions have an average capacity of 500-600 places. On the background of the demographic decline, maintaining a large number of institutions whose capacity is not fully used implies unjustified maintenance costs to the detriment of investments in the quality of education. At the same time, the existing infrastructure is physically and functionally outdated. Most units of the network of institutions are situated in the northern and central areas of the republic, and their profile does not match the social-economic characteristics of the region where they are located. Infrastructure of secondary vocational and secondary specialized education institutions is not adapted to provide access to education to people with special educational needs.

The technical and material basis of secondary vocational and secondary specialized education institutions does not facilitate development of professional competencies demanded in the labour market and requires major investments for modernization. Collaboration of these institutions with the business environment in use of modern equipment and technologies for vocational training of pupils is poor and occasional.

In January 2013, the Government approved the Vocational/Technical Education Development Strategy 2013-2020 and the Action Plan for Strategy Implementation (approved by the Government Decision no.97 of 1 February 2013 ‘On approval of the Vocational/Technical Education Development Strategy 2013-2020’), which provide for an extensive structural, content and modernization reform of the secondary vocational and secondary specialized education system, which is in the initial stage of implementation.

The number of students of higher education institutions decreases after a significant increase in the '90s. There are still structural imbalances in training of specialists with higher education as per specialties and specializations.

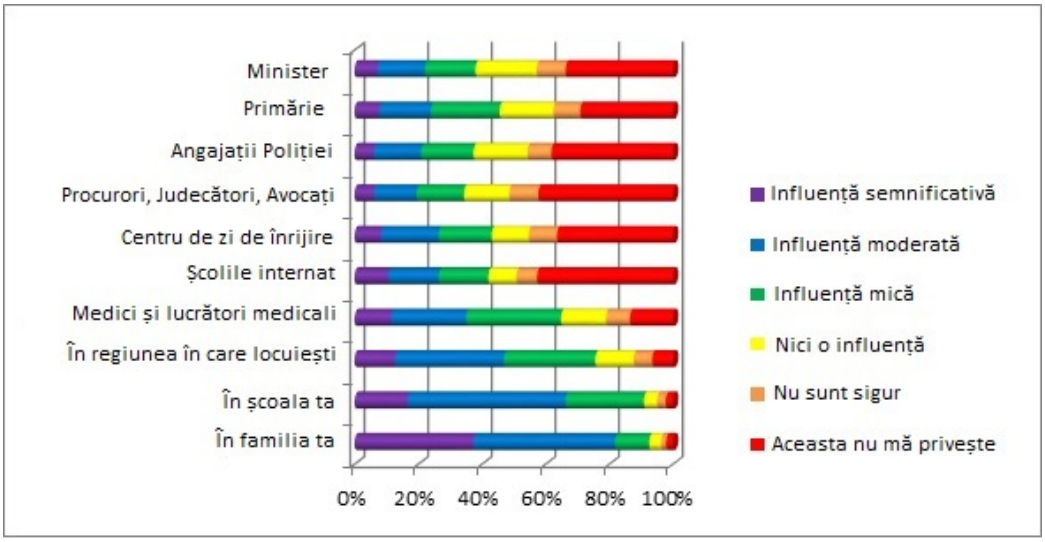
After doubling of the number of students of higher education institutions in the '90s, it has steadily decreased in the last few years. The number of students enrolled in the 32 higher education institutions accounted for 97.3 thousand people at beginning of the 2013-2014 academic year, or 20.9% less than in the 2007-2008 academic year (but 1.8 times more than in the 1990-1991 academic year). Thus, at the beginning of the 2013-2014 academic year, there were 273 students and 70 graduates per 10,000 inhabitants, as compared to 344 students and 56 graduates in the 2007-2008 academic year. During the last five years there has been a fluctuating evolution of the number of graduates, due both to graduation from higher education of two cycles and pre-Bologna higher education (4-5 years of study without cycling).

At the same time, higher education institutions are not sufficiently adapted either for modern training or to meet demands of people with special educational needs. They do not have access infrastructure in education buildings and dormitories, specific training technologies and student-centred curricula. The technical and material basis does not allow new teaching technologies to be implemented and market researches to be conducted.

Depending on the general fields of education, a higher share of students studied economic sciences - 24.5% in the 2012-2013 academic year, being followed by students of education sciences - 14.4%, law - 14 , 0%, engineering and engineering activities -11.0%.

Involvement of children and young people in decision-making processes is sporadic and limited. The right of every child to be heard in family, at school and in the whole society is not properly respected.

Children, members of working groups on children's rights, say their participation in school decision-making is formal, and children's opinion is often asked on less important issues and is not always taken in account (Children's rights monitored by children, Children's report on compliance with the UN Convention on the Child Rights CIDDC, CNPAC, 2012). They think they can influence little or moderately the decisions made in school or in society (Figure 4).



Minister
Mayor's Office
Police officers
Prosecutors, judges, lawyers
Day care centre
Boarding schools
Physicians and medical workers
In the region where you live
In your school
In your family

Significant influence
Moderate influence
Small influence
No influence
I am not sure
This does not concerns me

Figure 4. How much influence do you think you have on decisions made by adults? To what extent can you influence and change these decisions?

Source: Council of Europe (2013). Participation of children and young people in Moldova.

Even though there are examples where opinion of children was asked in school, this is not regular, permanent and uniform. The way in which the concept of children's participation is perceived shall be changed, so that it is integrated into all decision-making processes and at all levels. In this respect, child consultation mechanisms need to be institutionalized and decision-makers need to be trained to facilitate children's participation (Council of Europe, *Participation of children and young people in Moldova*, 2013).

The number of cases of violence against, and abuse of, children is relatively high, and not all cases are reported. Procedures for recognition, prevention and reporting of abuse cases have been adopted, but to be applied special training shall be carried out.

Although studies report a relatively high rate of abuse cases, many of cases of violence are not reported. According to the National Study 'Violence against Children in the Republic of Moldova' (2007), 25% of children say they are physically abused by parents and 10% say they have known someone who had been sexually abused. The same study reveals that one third of children are

verbally assaulted by teachers, 13% of children are physically abused by teachers, and one in ten parents knows teachers who have harassed or sexually abused children. Nearly 24% of children acknowledged that they had been discriminated against by teachers, especially children from low-income families. Many of the cases of violence against children identified by school were not reported, including because employees of the education system did not know the identification and referral procedures, and school management did not have tools to monitor the situation.

In order to ensure contribution of kindergarten and school to encouraging children to recognize, prevent and report abuse cases, the Procedure of institutional organization and intervention of employees of educational institutions in cases of abuse, neglect, exploitation, child trafficking was introduced by Order of the Minister of Education no. 77 of 22 February 2012. In accordance with this procedure, each education directorate and educational institution has appointed child protection coordinators tasked with training employees of educational institutions, establishing collaboration relationship with multidisciplinary teams in settlement, monitoring and reporting of the situation in cases of abuse and neglect, and actions taken at school level. Due to this procedure, in 2013 specialists of education directorates, school managers and classroom teachers were trained.

RELEVANCE

The labour market has a substantial imbalance between demand and supply and a shortage of qualified workforce. The analysis of employment areas and the structure of unemployment show that the education system is not sufficiently linked to labour market requirements and does not offer relevant qualifications.

Emigration of the workforce, coupled with the demographic decline, challenges the myth that the workforce in the Republic of Moldova is much, qualified and cheap. The level of employment sharply fell from 54.8% in 2000 to 39.3% in 2013. At the same time, the unemployment rate made up only 5.1% in 2013. However, this indicator, seen separately, does not adequately reflect the state of the national economy. The relatively low number of well paid jobs discourages demand, and people prefer to be unemployed or to go to work abroad.

Recent surveys on the quality of business environment report that the lack of qualified workforce becomes an important constraint in business development: 66.7% of companies say that they face this problem (Labour relations in the Republic of Moldova viewed by companies, carried out with the support of the UNDP and the Belgian Government). In particular, businesses report that professional

knowledge and competencies of graduates of secondary vocational education institutions do not match their needs. Companies require higher professionalism and specific competencies. Moreover, some vocational schools prepare workers of crafts/ professions that are not demanded on the labour market. As confirmed by 52.2% of corporate respondents, companies report that young workers do not prove commitment to work (Labour relations in the Republic of Moldova viewed by companies, carried out with the support of the UNDP and the Belgian Government). Low labour productivity and poor quality of products and services build a vicious circle that causes small salaries.

Even if there are no rigorous indicators of measurement of the relevance of education, a faulty connection between the labour market and the education system can be noticed. The analysis of the structure of the employed population by age groups and by level of education reveals that 36.3% of the employed 25-34-year-olds have only primary or general secondary education, working without having followed professional institutionalized training. Young people enrolled in vocational education do not find a job in the studied field. The first job of 32.4% of graduates has nothing to do with their specialty (Situation of young people on the labour market, the Academy of Economic Education of Moldova, and the National Employment Agency, 2008). The problem of unemployment is more acute for graduates of secondary vocational education than for graduates of secondary or higher education.

Curricular contents are congested and do not ensure relevance for personal, social and professional development and affirmation of beneficiaries of the educational process.

The curricular reform in the pre-university education, initiated between 1997 and 2001, failed to move on to the modern learning content building paradigm. After a period of implementation, monitored and supported through teacher training programmes, a new edition of curriculum documents was published in 2006 aiming ‘decongestion’ or reduction of theoretical information. However, this decongestion was achieved neither in 2006, nor in the next phase of the curriculum reform. In 2010, the curriculum review focused on embedding the concept of competencies, proceeding from the key competencies covered by European documents and ending with specific competencies of the school disciplines and the so-called ‘sub-competencies’, a term that generated controversial discussions in the academic and school environment.

The main problems reported by teaching staff, pupils, parents, and the studies of various non-governmental organizations, include:

high degree of curriculum theorization;

low relevance and practical applicability of curricular content at all levels of lifelong learning and subsequent personal, social and professional fulfilment of learners;

excessive focus on formative and summative evaluation of knowledge learning and content reproduction to the detriment of evaluation of competencies;

insufficient entrepreneurial competencies and life skills, skills of communication in official state language and foreign languages, problem solving, cooperation and team working, design and management of own learning process, use of technologies and information resources etc.;

lack of a career counselling and guidance system to support pupils in designing a successful career path from school desks.

Familiarization of pupils with ICT is limited by insufficient provision with computers and their use at a later age. Limited application of interactive ICT methods and devices for teaching and management purposes does not allow achieving quality, inclusion and efficiency objectives that would prepare young people to meet labour market requirements and have a satisfactory social-economic life.

Familiarization of pupils with ICT is limited by insufficient provision with computers and their use at a later age. In the 2012-2013 academic year the education system had about 35,584 computers. The problem is rooted not only in insufficient number of computers: about 15 pupils/students per computer, compared to a maximum of 3 children per computer in the EU, but also in their high wear: half of computers are outdated. Moreover, pupils are familiar with ICT due to the Computer Science school subject, which is compulsory taught since the VIIth grade. However, in the overwhelming majority of the EU Member States, teaching of ICT in one or another form begins in primary grades.

Interactive ICT methods and devices are not widely used in teaching of subjects. In the 2012-2013 academic year only 6,061 computers were used by teaching staff. To integrate ICT deeper into the learning process, about 140 schools were provided with specialized software for basic disciplines, but they are used in a different proportion because of low motivation and insufficient training of teachers in the field.

Of the total 1400 teachers of Computer Science in general education, 50% have a university degree in real sciences and only 36% graduated from special education in the field of teaching computer science. Most teachers do not engage in continuous training activities and often do not have access to curriculum adapted to the field of computer science. The curriculum for grades VII-IX does not meet the European requirements. Difficulty of the material taught in a non-

discriminatory way is well above the requirements specified by both UNESCO and the Council of European Schools.

Communication at school management level is mainly classical – meetings, letters on paper, etc. Use of ICT in management of school institutions would streamline time and reduce expenditures. At the same time, it would make transparent the educational process and would discipline teachers through creation of electronic logs, development and placement of digital contents and homework in electronic format in order to be viewed by pupils and parents and would be an example of effective use of ICT resources in community.

In the absence of the National Qualifications Framework, the updated Training Nomenclature and occupational standards, vocational training at all levels of education does not provide the set of competencies required by labour market.

The National Qualifications Framework for lifelong learning, which would describe and classify learning outcomes at different levels of education and training and would be the main link to the required competencies in the labour market, is being developed. The National Qualifications Framework for higher education was developed and approved, but it will be extended to cover other areas of vocational training such as arts, education sciences, etc. At the other levels of education, development of the National Qualifications Framework is still at the initial phase. All projects are to be updated in line with the new provisions of the European Qualifications Framework and the latest changes in the structure of the national economy.

The current nomenclatures by areas, specialties and crafts in secondary vocational education and secondary specialized education, which shape the offer of study programmes and qualifications awarded by the educational institutions, are outdated, do not reflect the needs of the labour market and are not aligned to the Eurostat European Classifier and International Standard Classification of Education ISCED-2011. In particular, secondary specialized education continues to offer study programmes according to the Nomenclature developed for vocational training in short-term higher education, although the status of colleges was modified in 2003 and vocational and craft schools train enrolees for very narrow or endangered crafts and occupations (for example, deboner, stove maker, etc.). Consequently, the programmes and qualifications offered in the national secondary vocational and secondary specialized education system are not clearly delineated, are not attractive to beneficiaries of the education and are irrelevant to employers, reduce employability of graduates and raise barriers to academic and professional mobility.

Development of occupational standards for professions included in the Classifier of Occupations is at an early phase. Occupational standards describing the competencies required for occupations are developed by sectoral committees with involvement of private sector. Currently only 4 sectoral committees are set up that deal with: 1) agriculture and food industry (2009); 2) constructions (2008); 3) transport and road infrastructure (2012); and 4) vocational training in information and communication technologies (2012). Sectoral committees face a number of difficulties in their work, such as lack of a well-defined legal status and limited capacities. At the same time, the methodology for development of occupational standards is too complicated, as many countries have adopted easily transferable occupational standards for standard professions. Consequently, only 6 occupational standards have been developed so far: four in constructions (painter, locksmith, installer of sanitary equipment, steel bender and stonemason) and two standards in agriculture and food industry (confectioner and grape grower).

Vocational training and retraining courses for unemployed people face the same problems of relevance as formal education. Despite the shortage of qualified workforce, there are no mechanisms for recognition of skills, experience and qualifications obtained through non-formal and informal learning. Qualifications of migrants, other than academic ones, are not recognized.

Vocational training and retraining courses for unemployed people are mostly offered in existing vocational training institutions and therefore have the same relevance shortcomings as formal education. The National Employment Agency offers vocational training courses for unemployed and other groups (e.g. seekers of retraining) through educational institutions, employers' and trade union training centres, state-owned enterprises, commercial companies and non-commercial organizations etc. Authorized vocational training providers offer contents similar to the initial education and thus face the same problems of relevance. In addition, the name of professions for which training courses are organized corresponds to the Nomenclature of crafts (professions) for training of staff in secondary vocational education, which is partially outdated.

Experiences and skills required for a craft obtained through non-formal and informal learning cannot be invoked upon employment. There is no opportunity to validate and certify competencies obtained through learning, otherwise than formally. Use of experience of people in an occupation, gained in non-formal and informal environments, is central to raising the employment rate, as it provides the right to official recognition of competencies and hence build a path to the labour market. Therefore a system allowing identification, validation and certification of professional competencies of people shall be set up. The problem of recognition of qualifications and skills is particularly important for

migrants. At present, there are no mechanisms for recognition of qualifications of migrants acquired abroad, except for academic ones.

QUALITY

Development standards for children from birth to 7 years old and the Early Education Curriculum have been prepared, but teachers do not have the required competencies to effectively apply these policy documents in designing educational activities.

Even if there are development standards for children from birth to 7 years old, educators can not apply them correctly in designing vocational education standards for teachers from early education, curriculum, guides for educators, which impairs quality of early education (use of regulatory documents evaluation study: Education curriculum for pre-school aged children, development standards for children from birth to 7 years old, professional standards for teachers). This highlights the need to build an effective system of continuous training of young teachers at workplace, such as mentoring, as well as a system for monitoring and evaluation of quality of early education services.

Another problem is related to effective integration of interactive learner-focused methodologies into everyday practice. Many pre-school teachers apply methods specific to primary education, tacitly turning kindergarten into school, which is not correct in terms of principles of pre-school education and child-centred education. The methodology of teaching in the Ist grade of primary education shall be revised as well, making a stronger emphasis on games and ensuring continuity in education.

The system for monitoring, evaluation and ensuring the quality of school results is not linked to the curricular provisions on building competencies and to rigours of international evaluation programmes.

A steady decline in school performance is noticed in general education. The average grade for the baccalaureate examinations in 2013 was 6.11, down from 7.71 in 2008. Grades for assessments of pupils' performance undertaken in the course of the year in schools do not match the final assessment grades. A relevant example in this respect is the results of the baccalaureate examinations held in 2013, when the average grade of the academic years of about 42% of candidates was 8 and higher, but only about 8% of candidates got the average grade of 8 and higher for baccalaureate examinations. Besides, the baccalaureate examination passing rate was 68.17% in 2013, down from 95.78% in 2009. This fall is partly due to applying more severe penalties for copying and introduction in 2010 of the automated data processing system, due to which information is secured and the process is better monitored. However, the need for

modernization and a better correlation between examination and assessment system and curriculum is widely recognized.

The modest results of the Republic of Moldova obtained in the international assessment PISA clearly depicts symptoms and challenges of the quality of the education system. The results of PISA 2009 Plus of 15-year-old Moldovan pupils for reading, mathematics and sciences are among the lowest in the region. The performance gap between the Republic of Moldova and its neighbours, including the CIS countries, is measured every two school years (each 40 points equal about one school year. According to estimates, a 50-point increase in the PISA score results in a percentage of annual economic growth. The scores of participating countries are made available on the Organization for Economic Cooperation and Development website). According to PISA, more than half of 15-year-old pupils in the Republic of Moldova do not have the basic level of literacy and numeracy required to effectively and productively involve in the social-economic life. These results reveal the need to continue, strengthen and expand curricular development reforms, assessment of pupils and teachers, and quality of textbooks.

Lack of different standards and poor application of the existing ones significantly impedes building of a performance-based education system. Efficiency standards of learning each of the school subjects developed in 2010 failed to become an effective tool for teachers, as most of them did not know how to use them. Quality standards, from a child-friendly school perspective, were approved in 2013, but in order to become a real tool for evaluation of quality of educational institution, teachers' empowering and management programmes are needed. The lack of professional standards for teachers and managers makes impossible an adequate assessment of their performance and hence building a performance-based salary system.

Last but not least, lack of a specialized institution empowered to control and evaluate educational institutions and teaching staff engaged in pre-university education is a hindrance to quality assurance. The current inspection system is flawed and is similar to obsolete models inherited from the Soviet system. Inspection actions undertaken by district/municipal education directorates and the Ministry of Education are often formal, having a stressful effect and being a control and sanctioning tool rather than an assessment and support one. Inspection specialists have not been specially trained as inspectors, and in many cases their teaching education is even poorer than of those assessed.

The quality of vocational training, both for beneficiaries of education and employers, is below expectations. The mechanism for assessment and certification of learning results is imperfect, inefficient, and is at a high

corruption risk. The quality assurance system does not work at all levels of the education system.

In secondary vocational and secondary specialized education, assessment and certification of graduates is not reliable. As there are no adequate methods and tools, pupils are not assessed objectively. This is also due to the lack of a labour market relevant nomenclature of qualifications and occupational standards at national level, which would make clear the knowledge, skills and competencies that a qualified worker shall have. The final assessment examination, which is also a graduation examination, is internal, subjective in nature, and incentivises neither students, nor teachers to achieve higher performance, and the certificate issued upon graduation is not reliable for employment to the required extent. Teachers and masters engaged in vocational training often do not have the required qualification, and continuous and improvement training is not perfect and sufficiently funded.

In the recent years, the curriculum for vocational and technical education has been revised for some crafts and specialties, but the lack of an evaluation and accreditation structure for educational institutions and training/ professional development programmes impeded improvement of quality of graduates.

The higher education was reformed only structurally in line with the European Higher Education Area standards, but as there are no quality institutions, procedures and culture, the education is of poor quality and irrelevant, and investments in higher education are inefficient.

Despite the measures undertaken to modernize higher education, the national system has not yet been harmonized with the European system: although doctoral education has become the IIIrd cycle of higher education, it is not yet structured according to the European good practices, academic mobility is formal, and university autonomy has not been strengthened. The imitative nature of the reforms and integration of old contents into the new structure resulted in a poor quality of the educational process, as only a structural reform, rather than a reform of quality in the European spirit, was implemented.

As there is no a national agency for external evaluation and accreditation, it is difficult to objectively assess quality of the university system. The Regulation for Evaluation and Accreditation of Higher Education Institutions provides for accreditation every 5 years (in exceptional cases - 7 years), but a significant number of universities in the Republic of Moldova continue to work without having been re-accredited.

The mechanisms of interaction of the higher education institutions with the research-development, business environments and with the labour market,

are inefficient. A study on the research capabilities of higher education institutions, showed that the latter remain largely only providers of training and graduates, as well as of reproduction of social structures, as the reforms under the Bologna Process are not completed, and scientific research within universities is underestimated. Thus, they do not assume the role of generator of knowledge and competencies, through a financial and moral investment in what generates progress – scientific research. In 2012, only 49.4 million MDL or 16.4% out of 302.5 million MDL allocated for basic expenditures in the field of science and innovations were channelled to the universities. Under-funding of the university system is not just a driver of uncertainty (in terms of material basis, supporting development of human resources and rewarding performance or effort). Under-funding leads to an unhappy 'innovation' at the administrative and bureaucratic level: excessive workload of staff engaged in research while carrying out teaching activities (Association for Social-Economic Development and Promotion 'Catalactica' with the financial support of Soros Foundation-Moldova, 'Evaluation of the Research Capacity of Higher Education Institutions in the Republic of Moldova', January 2014).

Research performance in universities in the Republic of Moldova is far below the potential showed by Armenia and Georgia, countries with similar size and economic power. There are scientific fields that are very poorly represented in university scientific research, although they are present in higher education, which suggests a weak concern of the academic environment on scientific research in the universities of the Republic of Moldova.

According to the data presented by SCImago (a brief analysis of the countries' research performance can be made based on data provided by SCImago Journal & Country Rank http://www.scimagojr.com/index.php, a portal that includes scientometric journals and indicators developed on the basis of the information contained in the Scopus database of the publishing company Elsevier BV - the largest publisher of scientific publications in the world) for the period 1996-2012, the contribution of the scientific community of the Republic of Moldova to the world and regional scientific heritage in Eastern Europe is quite modest, accounting for about 0.02% and 0.25%, accordingly. The data show that the research environment in the Republic of Moldova contributes with decreasing trend of the world and regional scientific and cultural heritage, with temporary short-term revival and low intensity.

Unlike similar countries, the Republic of Moldova has a poor performance in terms of productivity and quality of researches. Moldova ranks 20th in scientific productivity out of 24 countries of Eastern Europe, while many of the countries with similar size of population and economy rank much higher. For example, Armenia, with about 2.9 million inhabitants and a GDP of $ 9.9 billion, ranked the 16th in 2012, with a scientific output more than double than the Moldovan one, while Georgia, with 4.5 million inhabitants and a GDP of $ 15.8 billion ranks the 17th, with a scientific output higher by about 65% than the

Moldovan one. In a ranking of quality of research results, measured by the number of citations of scientific publications with authors affiliated to institutions of the Republic of Moldova and expressed by the Hirsch index, the Republic of Moldova ranks the 19th, with Hirsch index of 60 points, being again advanced by Georgia, which ranks the 16th, with Hirsch index of 78 points, and by Armenia, which ranks the 14th with Hirsch index of 105 points.

Evolution of the scientific productivity of research groups in various fields active in the Republic of Moldova between 1996 and 2012 shows that several fields of science are poorly represented or even absent in the landscape of scientific publications prepared in the Republic of Moldova although they are represented in higher education and would be expected to have results in profile research. Poor productivity is noticed in the arts and human sciences, economics, dentistry, earth sciences, energy, etc. It is all the more important to note that the field of energy is one of the priorities of the Research Strategy 2006-2012 and appears to be one of the priorities of the Research Strategy 2013-2020. However, the constant attachment over time of research teams in certain fields, such as chemistry, physics and engineering, which do not appear to be affected by funding fluctuations, should be appreciated (Table 5).

The low social prestige of teaching and research positions and unattractive salaries are not likely to motivate students to get involved in research or to pursue an academic career. The share of young researchers, aged <35 old, employed in the field of science and innovation in the Republic of Moldova, makes up 22%. In higher education institutions, where plurality of positions in research projects achieved a large scale, the share of young researchers is 27%. Both figures are below the EU level where the scientific potential is evenly distributed. In the case of the Republic of Moldova, the situation is even worse as each fourth researcher is already a pensioner or will reach the retirement age in the near future (Association for Social-Economic Development and Promotion 'Catalactica' with the financial support of Soros Foundation-Moldova, 'Evaluation of Research Capacity of Higher Education Institutions in the Republic of Moldova', January 2014).

Table 5

Performance of teams from different areas of research in the Republic of Moldova

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Agricultural and Biological Sciences	11	9	8	9	7	5	9	4	11	3	12	6	14	12	10	9	15
Arts and Human Sciences	-	-	1	-	-	1	-	2	2	2	2	1	1	9	1	1	5

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Biochemistry, Genetics and Molecular Biology	22	10	10	15	10	4	11	32	7	16	25	21	17	14	20	33	23
Business, Management and Accounting	-	-	1	-	-	-	-	1	1	1	-	1	-	-	-	2	7
Chemical Engineering	1	2	3	2	3	5	4	2	4	2	1	9	6	6	6	7	4
Chemistry	50	49	41	46	42	45	40	63	56	70	73	65	59	65	51	55	63
Computer Science	5	7	3	2	6	-	1	1	9	15	16	8	9	9	10	12	14
Science of decision-making	-	1	1	-	1	-	-	-	-	-	1	1	-	2	-	2	-
Dentistry	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Earth and Planetary Sciences	1	2	6	5	2	1	4	1	2	-	3	2	2	2	5	3	4
Economics, Econometrics and Finance	-	-	-	-	-	-	-	-	-	-	1	1	-	1	-	1	1
Energetics	1	2	1	-	2	3	2	3	-	3	1	-	1	1	1	1	1
Engineering	50	37	41	31	65	47	47	43	50	74	23	40	59	78	66	79	85
Environmental Sciences	1	-	7	5	2	1	5	-	1	6	4	3	3	5	1	5	10
Health	-	-	-	-	-	1	-	-	-	-	-	-	1	1	-	-	1
Immunology and Microbiology	-	1	1	1	2	-	3	1	-	1	1	-	8	2	5	3	4
Science of Materials	44	36	46	45	40	46	55	74	46	80	66	61	100	98	92	114	87
Mathematics	21	21	18	11	10	10	8	12	15	20	23	15	17	21	19	28	45
Medicine	4	3	5	9	2	4	3	7	11	17	11	11	16	18	15	21	19
Multidisciplinary	2	1	-	-	-	-	-	-	1	1	-	1	2	1	-	-	2
Neuroscience	-	-	-	2	-	-	1	-	-	-	1	1	-	-	1	1	-
Health Sciences	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-
Pharmacology, Toxicology and Pharmaceutics	-	4	-	2	1	1	1	1	2	5	3	5	3	3	2	6	1
Physics and Astronomy	62	70	61	65	73	57	65	67	52	99	91	81	121	121	111	137	110
Physiology	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Social Sciences	-	-	1	3	-	1	1	1	3	1	2	2	1	11	5	6	8

Source: SCImago.

The professional competencies of teachers and their development are not linked to changes in the education system.

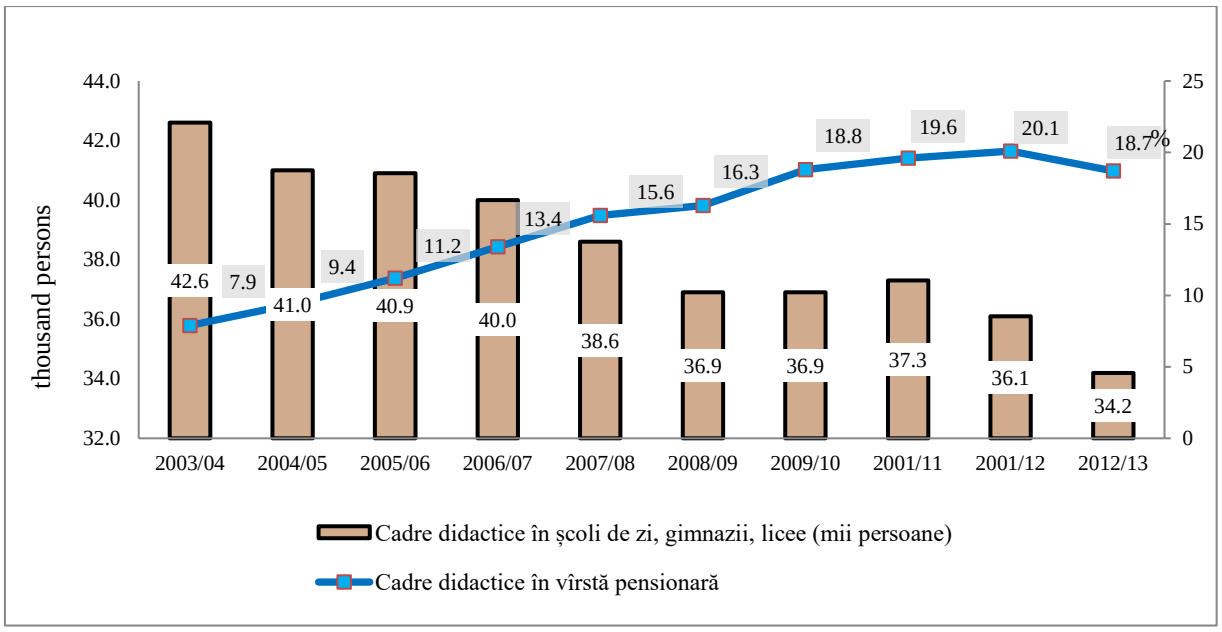
Decrease of teachers' professional competencies negatively affects the quality of education and does not contribute to development of a knowledge-based society and economy. Worsening quality of human resources engaged in the education system derives from several factors: economic instability and demographic changes that have led to migration of human resources abroad, as well as decline of the prestige of the profession due to erosion of importance of education in society.

Lack of a fair salary system in education, the degree of competence of the staff, discrimination of educators in relation to other groups of teaching staff creates problems for both process and results.

The professional competencies of pre-school teachers are obsolete. The pre-school educational process is provided by 12,532 teachers (as of 1 January 2013). Only 46.5% out of 92% of teachers with a teaching qualification have a university degree. 58.3% of employees have over 15 years of work experience and only 44.2% have teaching degrees, suggesting obvious problems related to their professional competencies.

Unlike other categories of teachers, educators are discriminated. The teaching work time standard of early education teaching staff is 35 hours a week, i.e. 15 hours more than that of primary school teachers and 17 hours more than that of gymnasium and lyceum teachers. The leave of educators is 42 days, i.e. 20 days shorter than the leave of teachers. The minimum salary of an educator is 2000 MDL, while the salary of a primary school teacher is 2200 MDL. All this negatively affects motivation of employees of early education and choice of young people of this profession and creates staff turnover.

The number of general education teachers decreased continuously, but at a much slower pace than that of pupils. As a result, in 2000 - 2013, the pupil/ teacher ratio decreased from 15 to 11.0. At the same time, in the last decade, a rapid aging of the teaching staff was noticed: in 2012, 18.7% of the teaching staff was retired, as compared to 6.8% in 2002. The government support programme for young teachers, approved in 2005, aimed to improve the situation in the system, but its impact was insignificant: 20% of the young specialists distributed within the programme left the educational institutions at the end of the subsidy period. However, over the last two years, this ratio stopped to 10% in 2010-2011, and to 2.3% in 2011-2012.



Teaching staff in day schools, gymnasiums, lyceums (thousand persons)
Teaching staff of retirement age

Figure 5. Share of teaching staff of retirement age in total teaching staff.
Source: National Bureau of Statistics.

Aging of the teaching staff is not accompanied by improvement of their qualification. The share of persons with the first (8.6%) and a higher (2.1%) teaching degree (Institute for Public Policies, Report 'Collection and analysis of data on general education in the Republic of Moldova') in general education is relatively small and most of them are pensioners and pre-pensioners. Distribution of management staff according to the management degree shows that 71.6% of the general education managers have no management degree. This situation is worsened by the poor quality of young teachers who enter the system: the teaching specialties have the lowest average number of enrolees, and the average grade upon graduation from higher education institutions and of the pedagogical environment is 7.80.

Despite the large number of teachers prepared at pedagogical institutions, there is still a staff shortage. In 2013, 3176 teachers graduated from pedagogical education institutions, or about 30% more than in 2012. Although the number of teachers required was 1052, only 781 graduates requested a job under the distribution programme in the education system. However, not all distributed graduates appear later at the workplace. In 2012, only 453 of the 671 distributed teachers appeared at the workplace.

Continuous training programmes are not focused on the needs of teachers. The institutions providing continuous training need to modernize the training

process and to assess the real training needs, focusing on building professional competencies needed to ensure a quality educational process.

Curricular development requires shifting the emphasis from formation of knowledge on formation of professional skills and competencies (by extending teaching internships and by deepening techniques and methods so that the educational process becomes more efficient). Also, the initial teacher education curriculum at state universities does not include the management component, preparing management staff for educational establishments without an adequate training.

Vocational training/continuous development of teachers is compulsory (Article 54 of the Education Law) and is carried out at least once every 5 years, aiming permanent connection of the qualification level with the methodological, curricular and technological conceptual renovation of education, depending on system requirements, as well as individual options. Continuous vocational training of teaching and management staff is usually carried out at higher education institutions or other competent institutions. At present, 1319 out of 27,408 teachers have the highest teaching degree, 5,920 have the Ist teaching degree and 7,087 do not have a teaching degree at all. In the 2012-2013 academic year, 6,256 teachers and managers improved their professional skills at 13 training/professional development centres.

Assessment of teaching/management staff is currently an important factor in professional advancement in the teaching career, but its implementation mechanism is outdated. A modern performance-focused evaluation system is needed to ensure objectivity of evaluation and modernization of the teaching/ management assessment system, based on the tendency to improve the quality of this process through the professional credit system that will ensure transparency and objectivity in awarding and confirming teaching degrees, following the principle of intelligence and professionalism.

Lack of interest in the teaching profession decreased the quality of enrolees for teaching specialties. In vocational education, teachers of specialized disciplines often do not have the required qualification. There is no mechanism for recruitment, motivation of teachers, and assessment, development and measurement of performance of teaching and research staff are not efficient.

Teachers often do not have a proper qualification. Thus, in 2012 47.2% of the pre-school teaching staff had secondary specialized degree, and the share of teaching staff with a university degree engaged in general secondary education was 87.1%, and 3.8% in the secondary specialized education, accordingly. In higher education institutions, the teaching staff with an academic degree accounts for 2.7 thousand people or 44.2%, which is below the standard of 45%.

Over the last 3 years the number of teachers with secondary vocational education increased. It is worth mentioning that the staff teaching in workshops, in large part, has never worked in real production conditions. The average age of teachers and maters-instructors engaged in secondary vocational education is 52 years old. According to a number of reports over the past 10 years, most of the teachers did not participate in continuous vocational training activities (Reference Study in the context of the 'Torino Process', ETF, 25 May 2010).

Under the conditions of financial autonomy, the role of institutional management, from process manager to system administrator, has been reconceptualised. However, the way in which managers of educational institutions are selected and held accountable, is flawed and does not promote the most competent candidates.

Along with implementation of the structural reform in education, the profile of manager (principal) of the educational institution has changed. The manager of the institution, besides the task of ensuring quality of the training process, is also responsible for human resources management, as employer and secondary budgeting officer, having new powers in strategic and budgetary planning. Although the structural reform mainly targeted general education, the finding is the same for all state institutions of pre-university, secondary vocational and secondary specialized education. Given that educational institutions become legal entities entitled to manage human and financial resources, the procedure for selection of principals becomes an essential one.

The bad practices, prior to 2010, of appointing school principals by an order, without a contest, for an indefinite period, did not encourage competition and promotion of the best managers in the sector. Currently, 170 managers, or 29.2% out of the total of 582 educational institutions (lyceums, residential institutions, vocational schools and colleges) have been appointed for an indefinite period. This state of affairs also results in a lack of a system of accountability for managers based on results. Thus, in parallel with establishment of a transparent and impartial mechanism for selection of managers of educational institutions, the need to modify the legal framework for organization of contests for managers to be appointed for an indefinite period is obvious.

The lack of internal and external quality assurance mechanisms aligned to the European standards (ESGs), decreases credibility of education, blocks academic and professional mobility, and hinders development of higher education.

The culture of quality in the education system, is relatively poor. The lack of effective assessment, monitoring and reporting institutions and mechanisms, and insufficient quality management competencies at all levels of the education system, explains the poor quality and relevance of education.

Most universities have set up their own internal quality management systems. There are, however, more problems in institutional quality management systems, such as insufficient quality management competencies in those involved in quality assurance in higher education institutions; inefficient focus on beneficiary in quality assurance approach; mentality, reactive instead of proactive attitudes and behaviours; inefficient communication with internal and external partners; insufficient financial resources for investments in laboratory equipment, information technology and multimedia equipment; insufficient national funding programmes and projects to ensure quality in education.

IV. STRATEGIC VISION
EUROPEAN CONTEXT

The education approach at European level shows that education at all levels is a fundamental pillar of the European success. Moreover, in a constantly changing world, lifelong learning is increasingly becoming a need and a priority – it is the key to employability, economic success and enables citizens to get fully involved in social life. In this context and since each EU Member State is responsible for its own education system, EU-level policies are designed to support national actions and to contribute to addressing across the EU the common challenges, such as: aging of societies, shortages of qualifications in the labour market and global competition. The long-term strategic objectives of education policies at European level are:

implemented lifelong learning and mobility;

increased quality and efficiency of educational and learning processes;

fostered equity, social cohesion and active citizenship;

incentivised creativity and innovation, including entrepreneurship, at all levels of the education system.

In a knowledge-based society, key competencies, such as knowledge, skills and attitudes appropriate to each context, are fundamental for each individual. They provide added value to the labour market, social cohesion and active citizenship, offering flexibility and adaptability, satisfaction and motivation. As all citizens should acquire them, the European Parliament and the Council of the EU adopted the Recommendation 2006/962/EC of 18 December 2006 on key competencies for lifelong learning, which proposes a reference tool for EU countries to ensure full integration of these key competencies into the strategies and policies of the countries concerned, especially in the light of lifelong learning. Against the background of the European integration vision of

the Republic of Moldova, the European framework of key competencies shall also be integrated into the strategies and policies of the country.

Table 6

Key competencies for lifelong learning

Framework of Key Competencies for Lifelong Learning

This framework defines eight key competencies and describes the knowledge, skills and attitudes of each of them. The key competencies are:

communication in the mother language, which is the ability to express and interpret concepts, thoughts, feelings, facts and opinions both verbally and in writing (listening, speaking, reading and writing) and to interact linguistically adequately and creatively and in a full set of cultural and social contexts;

communication in foreign languages, which, besides the main dimension of communication skills in the mother language, also involves abilities of intercultural mediation and understanding. The level of knowledge depends on several factors and the ability to listen, speak, read and write;

mathematical competence and basic competencies in science and technology. Numeracy is the ability to develop and apply mathematical thinking to solving different problems in everyday situations, focusing on process, activity and knowledge. The basic competencies in science and technology relate to mastery, use and application of knowledge and methodologies to explain the surrounding world. This involves an understanding of the changes caused by human activity and responsibility of each individual as a citizen;

digital competence implies confident and critical use of information society technology (IST) and therefore basic abilities of information and communication technology (ICT);

capability to learn the learning process is related to learning, ability to pursue and organize own learning, either individually or in groups, according to own needs, as well as awareness of methods and opportunities;

social and civic competencies. Social competencies refer to personal, interpersonal and intercultural competencies and to all forms of behaviour that enable each person to involve effectively and constructively in social and professional life. These competencies are related to personal and social well-being. It is essential to understand codes of conduct and habits from different environments in which people work. Civic competencies, in particular knowledge of social and political concepts and structures (democracy, justice, equality, citizenship and civil rights), make active and democratic participation of people possible;

spirit of initiative and entrepreneurship is the capability to turn ideas into action. This spirit requires creativity, innovation and risk-taking, as well as the capability to plan and manage projects to achieve objectives. The person is

aware of the context of his/her own activity and is able to use the opportunities that have arisen. This is a foundation for gaining more specialized skills and knowledge needed to those who establish or contribute to a social or commercial activity. This should include awareness of ethical values and promotion of good governance;

cultural consciousness and expression, which involves appreciating importance of cultural expression of ideas, experiences and emotions through a series of channels (music, theatre, literature and visual arts).

All these key competencies depend on each over, and in each case focus is put on critical thinking, creativity, initiative, problem solving, risk assessment, decision-making and constructive management of feelings.

STRATEGIC VISION 'MOLDOVA 2020'

The key priority of the National Strategy 'Moldova 2020' is the education sector, targeting 'Harmonization of the education system with the requirements of the labour market, in order to raise productivity of workforce and employment rate in the economy'.

Education relevant to career

Alignment of the educational supply to the labour market demand will have a considerable impact on the economic development. Upgrading of the vocational training system and improvement of continuous training of the workforce will enable citizens to adapt to new conditions on the labour market. The partnership between the education system and the labour market will result in an educational offer matching the demand for workforce in quantitative, qualitative and structural terms. This, in turn, will help reducing unemployment rate and the flow of citizens going abroad, as well as the rate of population at risk of poverty or social exclusion.

The education policy will target ensuring quality of education.

STRATEGIC VISION "EDUCATION 2020"

The education system of the Republic of Moldova in 2020 will be accessible to all citizens; will provide quality education, relevant to society and economy, in terms of economic efficiency.

The strategic vision includes the following components of the education system:

beneficiaries of the education system proving the competencies required for personal, social and professional growth and development throughout life;

educational process focused on educational needs of learners and a relevant curriculum harmonized with the demand of the labour market;

fair assessment system focused on measuring competencies relevant to individual's life and the labour market;

teachers rewarded according to their professional performance, able to design learning activities focused on individual educational needs of beneficiaries;

professional management staff able to manage educational institutions effectively;

a network of educational institutions efficiently dimensioned in accordance with demographic and social trends and in line with current quality standards;

learner friendly infrastructure and learning environment;

modern, flexible and functional institutional framework that contributes to quality of education;

sustainable academic and social partnerships focused on common long-term benefits.

V. STRATEGIC DIRECTIONS, PRIORITY ACTIONS AND EXPECTED RESULTS

ACCESS TO EDUCATION AND EQUAL CHANCES

STRATEGIC DIRECTION 1: INCREASING ACCESS TO, AND INVOLVEMENT IN, EDUCATION AND VOCATIONAL TRAINING ALONG THE LIFE

As a whole, decision on enrolment in educational and vocational training processes is considered as being fundamentally determined by many factors, including social-economic ones, as well as by the degree of previous involvement in educational processes, even since early education. The analyses show that impediments to involvement of individuals in education are different, they do not exclude or can even enhance each other, intensifying reluctance of individuals and their families to involve in educational processes at all levels. The transversal nature of these barriers underpinned setting of the following specific objectives aimed at increasing involvement and access to lifelong learning.

Specific Objective 1.1. Enhancing access to quality early education so that the rate of inclusion in pre-school education of 3-6-year-olds raises from 82% in 2012 up to 95% in 2020, of 6-7-year-olds - from 92% in 2012 up to 98% in 2020.

Priority Actions:

1.1.1. Improvement of the policy framework on early education for all children and equal access to quality services at national, local, institutional and family levels.

1.1.2. Development and upgrading of the network of institutions so that all children have access to quality education by renovating and building pre-school institutions according to local needs.

1.1.3. Early identification of individual needs of children by development areas and development of mechanisms and intervention programmes to empower/rehabilitate them.

1.1.4. Diversification of early education services to better meet individual needs of children and the local ones.

1.1.5. Systematic approach to early education services by fostering collaboration between education, healthcare and social assistance through provision of integrated services.

1.1.6. Supporting disadvantaged communities/ institutions/ families to provide them with access to early education programmes.

Specific Objective 1.2. Provision of access to 12-year general compulsory education (lyceum or secondary vocational education), so than by 2020 the rate of enrolment of persons aged under 19 years reaches 100%.

Priority Actions:

1.2.1. Implementation of programmes on accountability of family, local public administration, community, educational institutions so that all children/ students have access to quality education.

1.2.2. Elaboration and implementation of measures to prevent and reduce school dropout.

1.2.3. Setting up of an enrolment monitoring system.

1.2.4. Promotion and implementation of an educational process that provides building of skills needed for personal, social and professional fulfilment and growth.

1.2.5. Extending the offer of psycho-pedagogical services and career counselling.

1.2.6. Diversification of extracurricular activities.

Specific Objective 1.3. Increasing attractiveness and facilitating access to technical vocational education so that the share of pupils targeting this education increases by 10% by 2020.

Priority Actions:

1.3.1. Design and upgrading of the network of vocational and technical education institutions according to the social-economic development of the regions.

1.3.2. Development of a normative framework to stimulate involvement of businesses in initial and continuous training of specialists in professions and crafts important for development of the national economy.

1.3.3. Provision of adequate infrastructure of vocational and technical education institutions to develop practical skills relevant to the professions and crafts learned.

1.3.4. Provision of adequate infrastructure and living conditions in dormitories of vocational and technical education institutions so that vocational education becomes more attractive.

1.3.5. Provision of transversal mobility of beneficiaries of vocational training programmes between different education levels and qualifications.

1.3.6. Creation of programmes to incentivise employees without professional qualification to pursue secondary and specialized education.

1.3.7. Development of tools for recognition of qualifications obtained in formal and non-formal education.

1.3.8. Ensuring access for people with special educational needs to vocational and technical education, according to their potential and participation capacity.

1.3.9. Ensuring correlation of vocational and technical education policies with other sectoral policies.

Specific Objective 1.4. Raising the rate of enrolment in higher education in areas important for social-economic development of the country, so that the share of graduates of higher education among 30–34-year-olds reaches 20% by 2020.

Priority Actions:

1.4.1. Provision of a legislative framework to strengthen correlation between the level of qualification and competencies demanded by the labour market.

1.4.2. Foundation, development and implementation of the transferable study credit system and financial incentives to increase access to education.

1.4.3. Development of a normative framework and fostering alternative (open, distance, mixed) forms of education.

1.4.4. Promotion of social dimension to ensure access to education and vocational training for people with special educational needs and disadvantaged groups of the population.

Specific Objective 1.5. Extending and diversifying the lifelong learning system, so that by 2020, 10% of the adult population (25-64-year-olds) participates in training programmes.

Priority Actions:

1.5.1. Development of a normative framework on adult education in the European context.

1.5.2. Development of funding mechanisms for adult education system.

1.5.3. Facilitation of development of lifelong learning programmes giving priority to development of key competencies: digital, entrepreneurial, linguistic, intercultural and other new competencies demanded by the labour market.

1.5.4. Creation of an information system on lifelong learning opportunities.

1.5.5. Development of tools for recognition of qualifications obtained in non-formal and informal environments within lifelong learning programmes and implementation of transferable study credit tool.

Specific Objective 1.6. Fostering and ensuring inclusive education at the level of the education system so that the rate of access to education of children with special educational needs increases by at least 10% annually.

Priority Actions:

1.6.1. Harmonization of the national normative framework for development of inclusive education with the relevant European policies and norms in order to ensure access to quality education for each child, young or adult, including people with special educational needs.

1.6.2. Promotion of the role of inclusive education at family, local public administration, community, educational institution levels in ensuring equal opportunities of quality education for all children.

1.6.3. Implementation of the National Programme and action plans for development of inclusive education in the Republic of Moldova for 2011-2020.

1.6.4. Establishment/ reorganisation of structures, forms, positions, etc. to provide psycho-pedagogical assistance necessary for development of child with special educational needs (services, centres, supporting teacher, psychologist, social worker, etc.).

1.6.5. Provision of infrastructure and material conditions appropriate for inclusive education in educational institutions across the country.

Specific Objective 1.7. Social-educational reintegration of children placed in residential institutions so that the number of children in these institutions reduces by 25% till 2015 and by 50% till 2020, and transformation till 2015 of at least 20% of the residential education institutions in general education ones, and at least 25% till 2020.

Priority Actions:

1.7.1. Reorganization of the residential-type system for education and childcare with special educational needs.

1.7.2. Rechannelling financial resources from reorganized residential institutions to development of alternative social and educational services.

Specific Objective 1.8. Provision of conditions and implementation of actions so that school dropout in primary and general secondary education decreases by at least 10% annually.

Priority Actions:

1.8.1. Development and implementation of the National Programme and action plan to combat school dropout in primary and general secondary education.

1.8.2. Elaboration and promotion of cross-sectoral tools to prevent and reduce school dropout.

1.8.3. Organization of information and awareness campaigns for parents (including Roma) about the need to school and enrol children in compulsory education, and to continue their education.

1.8.4. Improvement of monitoring systems on school attendance and school performance.

Specific Objective 1.9. Provision of conditions favourable to socio-linguistic integration of representatives of ethnic minorities and migrants.

Priority Actions:

1.9.1. Elaboration and implementation of the National Programme and the action plan to increase the quality of learning process of the Romanian language in institutions with teaching in languages of national minorities.

1.9.2. Upgrading of teaching of Romanian language and literature in schools with education in languages of national minorities by aligning it to provisions of the European Framework of Reference for Languages.

1.9.3. Supporting the socio-linguistic integration of pupils who do not speak Romanian by increasing the number of school subjects studied in Romanian.

1.9.4. Development and implementation of a programme and an action plan for intercultural education in the education system.

1.9.5. Ensuring the quality of teaching the Romanian language to foreigners by monitoring, evaluating and improving implementation of the Methodology of Romanian Language Courses for Foreigners.

Specific Objective 1.10. Development of the system of career counselling and career designing throughout life.

Priority Actions:

1.10.1. Development of the conception and implementation of career counselling and career planning services as an integral part of educational public services.

1.10.2. Ensuring career counselling and design at general education, initial training and continuous training levels.

1.10.3. Supporting development of a network of specialized institutions to provide career guidance and career design services throughout life.

Specific Objective 1.11. Ensuring a protective school environment able to prevent violence against children and promptly intervene to identify, refer and assist child victims of violence.

1.11.1. Development and implementation of child protection policies at all levels, with due regard to children’s rights, children development capabilities and local needs.

1.11.2. Development of methodological support and completion of the initial and continuous training curricula of the management and teaching staff on

institutional organization and intervention of employees of educational institutions in cases of abuse, neglect, exploitation, child trafficking.

1.11.3. Training of teachers and managers to prevent violence against children and to integrate child protection policies into the educational process.

1.11.4. Capacity building of the bodies empowered to inspect schools in monitoring and reporting the situation on cases of violence against children.

1.11.5. Empowering children, parents and community members to recognize, prevent and report cases of violence against children.

EDUCATION RELEVANT TO ECONOMY AND SOCIETY

STRATEGIC DIRECTION 2: ENSURING RELEVANCE OF EDUCATION FOR LIFE, ACTIVE CITIZENSHIP AND SUCCESSFUL CAREER

Economic competitiveness of a country depends essentially on the level of training of its own workforce, which, in turn, depends on the quality of the education and training system of the country concerned. As a whole education is perceived as crucial tool to boost economic competitiveness and quality of life. The analysis of the education system in the Republic of Moldova shows that there is a substantial imbalance between demand and supply on the labour market, as well as a shortage of qualified workforce, and that the education system does not offer, to a large extent, relevant qualifications. Also, the lack of the National Qualifications Framework, updated vocational training nomenclatures and occupational standards is a major impediment in offering the set of competencies required on the labour market. In addition, despite the shortage of qualified workforce, there are no mechanisms for recognition of skills, experience and qualifications obtained through non-formal and informal learning. In these circumstances, concrete actions focused on the following specific objectives are required and proposed.

Specific Objective 2.1. Ensuring child-centred early education and successful transition to school.

Priority Actions:

2.1.1. Upgrading of the early education curriculum in line with child development standards from birth to 7 years old.

2.1.2. Holding the teaching staff accountable for effective and accurate application of child development standards from birth to 7 years old.

2.1.3. Assessment of performance of teaching staff involved in early education based on professional standards.

2.1.4. Assessment of impact of the curriculum and implementation of schooling assessment tools.

2.1.5. Monitoring of the level of early childhood development based on child development standards from birth to 7 years old.

Specific Objective 2.2. Ensuring relevance of primary and general secondary education.

Priority Actions:

2.2.1. Improvement of the normative framework for design and updating of pre-university curricula and reforming the institutional framework for design, development, implementation, monitoring and assessment of the National Curriculum in general education.

2.2.2. Development of curricula for pre-university education with due regard to relevance of skills acquired for life (digital skills, effective skills of communication in Romanian and in at least two modern languages, negotiation, teamwork, decision-making, joint problem solving, critical thinking skills, stimulation of creativity and innovation, strategic thinking and strategic management skills, research skills, skills of managing own learning process, information management, financial inclusion skills, environmental education, health education, entrepreneurial education, intercultural education, etc.) and focusing on pupil.

2.2.3. Promotion of curriculum decided by school (CDS), cross-curriculum and empowering teachers for CDS design.

2.2.4. Improvement of mechanisms for development and edition of textbooks and other teaching materials on competitive basis.

2.2.5. Elaboration of the normative framework for development and use of digital teaching and assessment contents and tools.

2.2.6. Elaboration of pupils' assessment standards in pre-university education.

2.2.7. Elaboration of the general framework and specific regulations for validation and recognition of learning outcomes acquired in non-formal and informal environments.

Specific Objective 2.3. Curricular and methodological provision of vocational and technical education, in accordance with the National Qualifications Framework by 2020.

Priority Actions:

2.3.1. Elaboration and implementation of the National Qualifications Framework for vocational and technical education.

2.3.2. Updating of the craft nomenclature and the specialty nomenclature (mixed specialties) in line with the country's economic needs and the European standards (Eurostat).

2.3.3. Elaboration of the competence assessment mechanism in the labour market and strengthening curricular design competencies based on this assessment.

2.3.4. Revision of the normative framework on curriculum design and development of curriculum design competencies of teaching staff.

2.3.5. Upgrading of curricula of vocational and technical education in line with the Key Competencies Framework for Lifelong Learning and labour market needs.

2.3.6. Preparation and implementation of the Transferable Study Credit System in post-secondary vocational and technical education.

2.3.7. Improvement of the methodology for assessment of educational funding, including by introducing external assessment upon graduation of vocational and technical education.

2.3.8. Creation of conditions for implementation of dual vocational education with effective involvement of businesses.

2.3.9. Reconsideration of internships to raise quality of initial vocational training.

Specific Objective 2.4. Upgrading of the university curriculum from the point of view of focusing on competencies, learner and needs of the economic environment.

Priority Actions:

2.4.1. Change of the paradigm of the university curriculum in line with new curricular trends and concepts: centred on cross-curricular themes, on competencies (in line with the Key Competencies Framework for Lifelong Learning) and on learner.

2.4.2. Involvement of the business environment in curriculum development and the National Qualifications Framework.

2.4.3. Foundation and promotion of curricular management at national, local and institutional level.

2.4.4. Modernization of the university curriculum from the perspective of modern teaching technologies, including information and communication ones, focusing on student, skill building required for professional qualification.

2.4.5. Matching the university curriculum with the National Qualifications Framework.

Specific Objective 2.5. Fostering of research as an advanced vocational training tool and a vector for promotion of performance and quality in higher education.

Priority Actions:

2.5.1. Fostering research performance as a criterion for assessment and promotion of quality of vocational training programmes and higher education staff.

2.5.2. Elaboration of minimum standards of research performance required to obtain scientific titles.

2.5.3. Separate funding for doctoral programmes.

2.5.4. Setting up and application of mechanisms for attraction of successful young researchers in academic career.

2.5.5. Setting up and application of transparent and competitive mechanisms for financial support of research of university teaching staff with proven professional performance.

STRATEGIC DIRECTION 3: EFFICIENT INTEGRATION OF ICT INTO EDUCATION

Educational policies should support training of young people to enable them to actively engage in building and developing a society of knowledge that is the engine of competitive social-economic development of the whole country. Information and communication technologies have enabled development of a wide range of educational and vocational training tools so that use of ICT in education has become a common feature of developed countries with strong economies. Analysis of the current situation in Moldova showed that familiarization of pupils with ICT is limited as provision with computers and their late use is not sufficient. Since interactive ICT methods and devices for teaching and management purposes are used to a limited extent only, quality, inclusion and efficiency objectives to prepare young people to meet labour market demands and to get fully integrated into social-economic life, cannot be reached. To effectively integrate ICT into education, priority actions aligned to the specific objectives described below, have been envisaged.

Specific Objective 3.1. Enhancing access to quality education by providing education institutions with modern equipment useful to the educational process.

Priority Actions:

3.1.1. Implementation of the pilot project ‘One computer for each pupil’ in 10 schools, since 2013.

3.1.2. Elaboration of a medium-term plan on provision of education institutions with modern equipment, access to the Internet and the infrastructure

necessary for successful implementation of information and communication technologies in the educational process.

3.1.3. Provision of school libraries with modern equipment and access to the Internet so that the needs of information and documentation of pupils and teachers are met.

3.1.4. Provision of access to quality education by putting in place distance learning models, especially for pupils in small schools.

3.1.5. Facilitation of creation of networks of communication and exchange of best practices among teachers.

3.1.6. Provision of schools with special equipment needed to train people with disabilities.

Specific Objective 3.2. Development of digital competencies by preparing and applying digital educational contents in the educational process.

Priority Actions:

3.2.1. Development of ICT skills, including skills to develop and use digital pedagogical contents in the future teaching staff of higher education.

3.2.2. Development and implementation of programmes on training and incentivizing teachers to use ICT in education, including to create and publish their own digital contents.

3.2.3. Diversification of the offer of optional courses in primary and general education by introducing courses in which information technologies are used or promoted.

3.2.4. Development of standards for digital textbooks and their application at textbook tenders.

3.2.5. Creation of a unique educational platform that combines digital educational contents in the Republic of Moldova and that can be accessed by pupils, teachers and parents.

3.2.6. Use of ICT in examination and assessment.

3.2.7. Fostering of use of existing digital educational contents (e.g. Discovery School, Khan Academy, etc.).

3.2.8. Improvement of quality of university education by integrating online courses (Massive Open Online Courses - MOOC) into university curricula.

Specific Objective 3.3. Enhancing effectiveness and efficiency of school management at system, school and class levels by means of information technologies.

Priority Actions:

3.3.1. Implementation of an Educational Management Information System, comprising a register of schools, pupils and teachers, based on the school census, and regular and accurate collection of data in schools.

3.3.2. Improvement of school management by providing training for management staff with school management software (accounting, budget planning, etc.).

3.3.3. Improvement of the quality of teaching-learning, pupils' performance record keeping and communication between pupil, teacher and parents by gradually introducing classroom management software into schools.

QUALIFIED HUMAN RESOURCES, EFFICIENT MANAGEMENT AND QUALITY ASSURANCE

STRATEGIC DIRECTION 4: DEVELOPMENT, SUPPORTING AND MOTIVATION OF TEACHERS TO ENSURE QUALITY EDUCATION

Human resources are the key engine in any quality education system. They may compromise everything or may be a real promoter of reform measures. The analysis carried out in elaboration of this Strategy highlighted several aspects with a major impact on performance of the education system. The professional competencies of teachers and their development are not aligned to changes in the education system. There is no fair salary system in the education system and the teaching staff have low competencies. Discriminatory remuneration of educators as compared to other categories of teaching staff raises problems in terms of both process and results. Continuous training programmes are not focused on the needs of teachers. Institutions offering continuous training programmes need to upgrade training and to assess the real training needs, focusing on creation of professional competencies needed to ensure a quality educational process. In order to remedy these shortcoming, strong actions are proposed with the following specific objectives.

Specific Objective 4.1. Enhancing attractiveness of the teaching profession, attracting and maintaining skilled teaching staff in the system, so that the average age of teaching staff engaged in the education system decreases by 3 years until 2020, the average salary of teaching staff matches the average salary in the economy and the rate of early abandonment of teaching activity decreases by 10%.

Priority Actions:

4.1.1. Improvement and promotion of the image and status of teacher through the media.

4.1.2. Motivation and incentivisation of teachers by aligning salaries with individual performance.

4.1.3. Elaboration and implementation of an effective and transparent system of professional promotion of teachers based on results and professional performance.

4.1.4. Depoliticization of recruitment and professional promotion of teachers.

4.1.5. Reforming the teacher salary system .

4.1.6. Reduction of the period required to reach the maximum salary level.

4.1.7. Diversification of options/pathways for professional promotion of teaching staff and growth of salary.

4.1.8. Improvement of the salary system of administrative and technical staff engaged in education in order to strengthen the new institutional functions, performance-based motivation and to strengthen capacity of institution.

4.1.9. Examination of the opportunity and the possibility to provide an annual compensation to teachers for provision of teaching aids and other materials necessary for teaching activity.

4.1.10. Elaboration of a normative framework ensuring flexibility in entering into, and returning to, the teaching career.

4.1.11. Diversification of benefits granted to young teachers employed in educational institutions from rural areas.

4.1.12. Examination of the opportunity and the possibility of reviewing setting of teaching work time standards by levels of the education system with a view to make it rational in the whole education system, to take into account the time of preparation for the teaching activity and to decrease the teaching work time standards at the beginning of career.

4.1.13. Diversification of continuous training programmes for teaching and management staff and encouraging diversity of continuous training programme providers.

4.1.14. Setting up a system of social benefits for teaching staff.

Specific Objective 4.2. Ensuring a quantitative and structural balance between supply and demand of the teaching staff at all levels of the education system, so that education in all institutions across the system is fully assured with qualified teachers of subjects of study.

Priority Actions:

4.2.1 Setting up and maintaining a national register of teaching staff by levels of education and subjects of study.

4.2.2. Ensuring access for pupils of general education schools to school psychologist services.

4.2.3. Creation of the conditions for continuous training of masters in vocational and technical education institutions in real production conditions.

4.2.4. Opening of access for people with professional experience out of the education system to employment in secondary and post-secondary vocational and higher education institutions.

4.2.5 Fostering academic and professional mobility of teachers, masters and researchers.

Specific Objective 4.3. Reconceptualisaton of the initial training of teachers by developing their competencies required to pass the new educational path characteristic to a complex environment, in a globally changing society of knowledge.

Priority Actions:

4.3.1. Strengthening and upgrading of capacity of higher education institutions to provide teacher training programmes.

4.3.2. Development of the National Qualifications Framework and professional standards for teachers, specific to stages of the professional career and levels of the education system.

4.3.3. Upgrading of the framework plan for initial training of teaching staff in terms of building general and specific competencies.

4.3.4. Elaboration and authorization of programmes on research, documentation and dissemination of good practices in education and vocational training.

4.3.5. Setting up of a feedback mechanism (reverse connections) on the quality and effects of educational policies and contents.

Specific Objective 4.4. Enhancing efficiency and flexibility of continuous training system for teachers and managers.

Priority Actions:

4.4.1. Improvement of the normative framework on continuous training of teaching and management staff.

4.4.2. Creation of a free market of continuous training offers in line with professional standards.

4.4.3. Encouraging establishment of professional associations of teachers.

4.4.4. Orientation of the teacher professional improvement system in line with the demand and the need for new competencies, by fostering innovations in pedagogy, psychology, teaching and methodical counselling activities.

4.4.5. Establishment of a three-level mentoring system: mentoring for teaching internships; mentoring for young specialists (insertion); mentoring for professional development at workplace.

4.4.6. Promotion of training activities in educational management within initial and continuous teacher training programmes.

4.4.7. Development of models of continuous vocational training of masters/instructors engaged in technical vocational education from the perspective of the ‚lifelong learning' principle and of the credit system for cumulative professional studies.

4.4.8. Creation of a continuous vocational training system of higher education teachers focused on accumulation of credits for professional studies and self-training.

4.4.9. Implementation of the credit system for professional studies in the practice of granting teaching degrees.

STRATEGIC DIRECTION 5: DESIGN AND INSTITUTIONALIZATION OF AN EFFICIENT SYSTEM FOR ASSESSMENT, MONITORING AND ASSURANCE OF QUALITY IN EDUCATION

In modern society, educational policies aim to ensure excellence in all aspects at all levels and cycles of the education system by promoting quality assurance mechanisms for study programmes and the institutions in which they are offered. Quality assurance mechanisms are designed to give beneficiaries and the general public the confidence that the society benefits from quality education services that ensure economic and social progress for all taxpayers. Diagnosis of the education system in the Republic of Moldova has revealed a number of systemic problems. There are no internal and external quality assurance mechanisms aligned to the European standards, thus leading to poor reliability of studies, blocked academic and professional mobility, and inertia in development of the education system. Also, lack of interest in teaching profession decreased the quality of enrolees for teaching specialties. In secondary and post-secondary vocational education, teachers of specialized subjects often do not have the necessary qualifications. There is no mechanism for recruitment and incentivisation of teachers, as well as a continuous and consistent assessment of their professional performance, and the system of certification, development and measurement of teachers' and scientific performance is not efficient. In these circumstances, the envisaged measures are focused on the following specific objectives.

Specific Objective 5.1. Development of the national education standard system.

Priority Actions:

5.1.1. Ensuring implementation of education, learning and development standards for children from birth to 7 years of age.

5.1.2. Elaboration and implementation of performance standards and indicators for quality assessment and quality assurance in general and secondary vocational education.

5.1.3. Elaboration of standards and performance indicators for quality assessment and quality assurance in higher education.

5.1.4. Elaboration of a national framework of qualifications for lifelong learning, including for technical and higher education.

5.1.5. Elaboration of a teachers' assessment system (including masters from vocational and technical education institutions) in line with professional standards.

Specific Objective 5.2. Elaboration and development of institutional framework for quality assurance in education.

Priority Actions:

5.2.1. Elaboration and assurance of functioning of the normative regulatory framework necessary for functioning of the independent structures for educational audit, external monitoring and assessment of quality in general education.

5.2.2. Establishment and ensuring functioning of the National School Inspectorate for primary and general education (including for assessment of teaching staff).

5.2.3. Establishment of the Curriculum and Evaluation Agency.

5.2.4. Improvement of the institutional regulatory framework on design, development, implementation, monitoring and assessment of the National Curriculum in general education.

5.2.5. Establishment and ensuring functioning of the National Agency for Quality Assurance in Vocational Education.

STRATEGIC DIRECTION 6: IMPROVEMENT OF RESOURCE MANAGEMENT IN EDUCATION

The Republic of Moldova is among the European countries allocating the highest share of the GDP to the education system, nevertheless its performance, measured by standardized methods (PISA tests, for example) show modest results, suggesting a low efficiency of use of the budget allocations invested in education. The analysis of the education system shows that inefficient use of the school network capacity does not allow investing in upgrading of institutions and providing them with adequate equipment. As in 2013 funding of all school institutions switched to funding per pupil, financial resources are expected to be

allocated efficiently. The new funding mechanism in education offers schools greater autonomy and flexibility in using resources. At the same time, along with implementation of the structural reform in education, profile of the educational institution manager has changed. The measures taken to increase efficiency of management in the education system are aimed at the following specific objectives.

Specific Objective 6.1. Improvement of planning and management of the network of educational institutions.

Priority Actions:

6.1.1. Mapping the network of education institutions by education levels.

6.1.2. Upgrading of the network of education institutions by education level in line with regional development prospects of settlement and the demographic situation.

6.1.3. Diversification of complementary education structures.

6.1.4. Development of the normative framework to facilitate provision of private services in education and establishment of sectoral, cross-sectoral, national and international partnerships.

Specific Objective 6.2. Streamlining of education funding.

Priority Actions:

6.2.1. Development and implementation of pre-school, primary and general education funding mechanisms, based on: education priorities, achieved results, number of pupils and their special needs, cost-performance analyzes; budget programmes; cost per pupil.

6.2.2. Promotion of financial autonomy of education institutions while holding them accountable in the light of decentralization.

6.2.3. Implementation of policies diversifying sources of funding and stimulation of accumulation of additional resources to support education.

6.2.4. Foundation and elaboration of supplementary funding mechanisms and norms of the education system based on institutional performance.

6.2.5. Institutionalization of the possibility of higher education institutions to organize and carry out entrepreneurial activities using the institution's teaching and material base in order to obtain own revenues.

Specific Objective 6.3. Upgrading of the infrastructure and the technical and material basis of the educational institutions.

Priority Actions:

6.3.1. Defining quality standards for infrastructure in education by levels of education and updating functional, sanitary and hygienic and safety norms.

6.3.2. Inventory of all institutional spaces.

6.3.3. Elaboration and implementation of programmes and projects for reconstruction and upgrade of buildings of educational institutions, including taking into account the needs of persons with disabilities.

6.3.4. Provision of pupils attending district schools located in other settlements with school transport means, and improvement of the access infrastructure, including for people with disabilities.

Specific Objective 6.4. Provision with textbooks and other teaching materials.

Priority Actions:

6.4.1. Free of charge provision with quality textbooks of pupils of grades V-XII from socially vulnerable families (up to 20% of the total number of pupils).

6.4.2. Editing teaching materials for educators and parents, taking into account the ethno-linguistic situation in the Republic of Moldova.

6.4.3. Provision of education institutions with school equipment for subjects of natural sciences: biology, chemistry and physics.

6.4.4. Provision with methodical and teaching, as well as with technical and material support of educational institutions and early development of children, according to the standards in force, at 80% by 2015 and 100% by 2020.

6.4.5. Provision with textbooks, other teaching materials and school equipment adapted to the needs of people with disabilities, necessary for the educational process in all educational institutions.

6.4.6. Inclusion in the development plans of education institutions of programmes for procurement of scientific and fiction publications, subscription to periodical publications and provision of libraries with access to databases.

STRATEGIC DIRECTION 7: ENSURING SOCIAL COHESION FOR OFFERING OF A QUALITY EDUCATION

Increased satisfaction with the educational process, increased commitment to the learning process, conscious decision-making and application of civic skills are personal benefits of children and young people who participate in elaboration, implementation and evaluation of educational policies. Moreover, involvement of children, young people, parents, civil society organizations and other social partners in decision-making contributes to development of quality, transparent educational policies based on the real needs of different groups of children.

In all countries where education reforms have been successfully implemented, before triggering of transformation processes, a broad national

consensus on the vision of development of the education system and the main options on the structure and priorities has been achieved. Being aware of the importance of national consensus on the beneficial transformation of the education system in the Republic of Moldova, in order to achieve social cohesion and political consensus on the future of the education system, we propose the following specific strategic objectives.

Specific Objective 7.1. Holding society accountable for meeting the need to provide quality education.

Priority Actions:

7.1.1. Diversification of the forms of community and family involvement in decision-making.

7.1.2. Elaboration of community and family incentivisation mechanisms to get involved in decision-making and to solve school problems.

7.1.3. Development of programmes for support of community initiatives to engage in resolution of educational problems.

Specific Objective 7.2. Enhancing pupils' involvement in decision-making, including in elaboration, implementation and evaluation of educational policies

Priority Actions:

7.2.1. Development and institutionalization of mechanisms for asking opinion of all children without discrimination at all levels of education in line with international child participation standards.

7.2.2. Revision of the initial and continuous training curricula of the management and teaching staff in order to integrate the concepts of: children’s rights, children’s opinion, evolving capacities of child.

7.2.3. Training of management and teaching staff to understand importance of the concept of child’s opinion and its integration into the educational process.

7.2.4. Encouraging establishment and support of activities of pupils' councils at local, district and national levels as a platform for communication and educational policy assessment.

Specific Objective 7.3. Ensuring effective parental education to improve childcare and education practices.

Priority Actions:

7.3.1. Elaboration and promotion of viable policies at parental education at national, local and institutional levels.

7.3.2. Conceptualisation and fostering of parental education at initial and continuous training levels.

7.3.3. Elaboration of parental education concept and strategy to improve childcare and education practices.

7.3.4. Organization of campaigns of media coverage and social accountability for parental education.

7.3.5. Elaboration and implementation of parental education programmes.

7.3.6. Ensuring access to parental education programmes for families and other carers, including disadvantaged families.

7.3.7. Establishment of social-psycho-pedagogical assistance services for family.

7.3.8. Streamlining training of teachers to provide parental education services within initial and continuous training programmes.

7.3.9. Training of parental educators according to the international practice model.

Specific Objective 7.4. Fostering of partnerships for education.

Priority Actions:

7.4.1. Ensuring involvement of social partners in policy-making.

7.4.2. Promotion of exchanges of experience between education institutions and teaching and management staff.

7.4.3. Development of mechanisms for building partnerships for quality education.

7.4.4. Fostering of dialogue with civil society and the business environment to establish areas of common interest and to solve educational and community problems.

7.4.5. Elaboration of efficient mechanisms for incentivisation of businesses to contribute to development of the technical and material and teaching basis of technical vocational education institutions, to support organization of long-term internships for pupils and students and to participate in projects for promotion and organization of dual vocational education.

7.4.6. Participation in regional and international cooperation programmes and projects promoted by international organizations.

VI. IMPLEMENTATION, MONITORING AND EVALUATION OF THE STRATEGY

Successful implementation of this Strategy, which contains highly complex public policies, requires detailed description of the objectives and planning of actions provided for in the Strategy, coordination of implementation actions and monitoring of performed activities. In order to determine to what extent planned actions lead to the expected results, implementation of the Strategy shall be regularly evaluated.

PLANNING OF IMPLEMENTATION OF THE STRATEGY

The Strategy will be adopted and thus undertaken at the Government level. The foremost responsibility for achievement of the objectives and implementation of the actions specified in the Strategy lies with the Ministry of Education. The Strategy formulates objectives and identifies actions that also fall within the area of competence of other central public authorities, in particular the Ministry of Labour, Social Protection and Family, the Ministry of Economy, the Ministry of Healthcare and the Ministry of Finance, which will also help to implement the Strategy. For performance of some major actions, mixed working groups will be established, which will be responsible for drafting specified policy papers and for advancing the activities provided for in the Strategy.

Implementation of the Strategy will be organized both on the basis of the policy documents in force, as well as through legislative amendments. Strategic directions and specific objectives set out in the Strategy will be included in the Strategic Development programmes of central public authorities, and their implementation will be planned and performed through strategic planning documents at the level of ministries, in particular the Medium-Term Budget Framework (MTEF), the budget and the annual action plan. This approach will enable integration of the Strategy's objectives into the usual administrative processes and will avoid the bureaucratic burden and the perception that the actions taken are an additional effort to fulfil the functional mandate. The strategic planning documents will describe in details the priority actions; will specify the implementation deadlines, the responsible institutions, the sources of funding and the monitoring indicators.

The legislative framework for the strategic directions and the specific objectives set out in the Strategy is ensured, first of all, by the new draft Code of Education, the regulations of which are in line with the provisions of the Strategy. Adoption of the Code of Education and other legislative acts that may become necessary in time will ensure implementation of reforms at national, local and institutional levels. Legislative, administrative and public policy

actions, including building and enhancement of human resources capacities, will all enable restructuring of the whole education system.

FUNDING OF THE STRATEGY

The costs of implementation of this Strategy can be quite large and difficult to estimate without additional details on the specific way of implementation of some priority actions. Consequently, the accurate costs for implementation of the Strategy will be estimated by the Ministry of Education and other central public authorities in the course of strategic planning, especially within elaboration of the Medium-Term Budget Framework and budget programmes, as well as in prioritizing requests for funding from development partners. Implementation of the Strategy will be funded by the state budget, local budgets, from attracted grants, funds, sponsorships and other legal sources, focusing on programme- and performance-based budgeting methodology.

Even if the accurate costs for implementation of the Strategy can only be presented in the course of operational planning, the general framework of expenditures can be estimated, proceedings from the estimated costs in the course of budget planning in the Sectoral Expenditure Strategy from the Medium-Term Budget Framework for 2014-2016 and external assistance projects scheduled for the next few years.

Table 7 shows the estimated education budget under the Medium-Term Budget Framework for 2014-2015. These financial resources include: current maintenance costs of institutions of the education system; system management costs at central and local levels, and current actions funded from the education budget, such as scholarships, national and international evaluations, olympics, extra-curricular activities, etc.; estimated costs for new activities, the legal basis of which is determined. The estimated budget includes all expenditures on maintenance of the education system, including budgets managed by the local public administration.

Table 8 presents the expenditures from the estimated budget, allocated on the specific objectives of the Strategy, which include both the expenditures estimated in the Medium-Term Budget Framework for 2014-2016, as well as the external assistance programmes scheduled for the next few years, which will support the objectives of the Strategy (Expenditures covered by external assistance projects are estimated based on information provided by development partners of the Ministry of Education on the objectives, budget and duration of the project. Annual expenditures are an annualized estimate based on the budget and duration of the project. Conversion into MDL was made on the basis of the exchange rates used by the Ministry of Finance in budget planning for 2014).

Expenditure analysis shows that not all specific objectives can be funded from existing sources. This is partly due to the fact that most of the expenditures from the estimated budget in education aim organization of the educational process at all levels of education and at this stage cannot be divided and distributed as per objective. However, even these resources will help to implement the Strategy by streamlining their use and rechannelling them towards priorities and by channelling the analytical product of the human resources paid from the state budget towards the policies provided by the Strategy. In other words, some priority actions provided for in the Strategy, such as, for example, implementation of measures to prevent and reduce school dropout, will be performed mainly by mobilizing civil servants and other public employees.

This means that the Strategy has also objectives that cannot be achieved without identifying additional sources of funding. Some of the uncovered costs have already been identified in the course of elaboration of the Code of Education. Enforcement of provisions of the Code will require additional public funds:

a) about 16 million MDL will be required annually for maintenance of the newly established institutional structures;

b) during the period of ‘renewal’ of the teaching staff in the general education institutions, the measures to support the young specialists will require about 61 million MDL annually;

c) social assistance for teaching staff after retirement will account for about 6,750 MDL per person or a total of about 21.9 million MDL, if every year 10% of teachers will be retired.

Table 7

Budget for education estimated in the Medium-Term Budget Framework for 2014-2016 , thousand MDL

Budget Actions	Medium-Term Budget Framework			Budget Programme
	2014	2015	2016	
Development of educational policies: management of expenditures	49,600.3	51,234.6	51,558.5	Policies and management in the field of education
Children's education in pre-school institutions	1,606,330.9	1,691,489.1	1,861,383.6	Early education and pre-school education
Children's education in primary and general secondary education institutions	3,035,574.4	3,188,533.1	3,326,892.5	Primary, gymnasium, lyceum education
Children's education in special institutions	229,002.5	241,361.8	248,441.2	Special education
Organization of training in vocational and craft schools	398,146.4	426,873.9	496,369.2	Secondary vocational education
Organization of the educational process in colleges	408,370.9	429,413.4	463,270.3	Post-secondary vocational and technical education
Organization of the educational process in higher education institutions	616,585.1	659,048.5	712,789.2	Higher education
Organization of post-graduate education (medicine and public administration)	65,275.2	67,867.9	72,175.6	Post-graduate education
Ongoing professional improvement of education staff	16,929.8	16,937.5	16,946.7	Professional improvement of staff
National and international assessments	21,284.4	21,922.8	24,467.7	General education services and Curriculum
Extra-curricular education	355,069.6	385,958.2	419,986.6	Extra-curricular education
General education services (IT, centralized accounting at district level)	182,833.1	284,955.5	310,602.7	General education services
Total:	**6985002.6**	**7,465596.3**	**8,004883.8**	

Funding of uncovered expenditures will be assumed at each budget planning stage, depending on the framework of available resources. Some of the uncovered expenditure can be funded by requesting additional external assistance. The Ministry of Education will ensure channelling of external assistance towards the priority actions provided for in the Strategy and avoiding duplication of efforts. To this end, in September 2013, the Ministry of Education established the Sectoral External Assistance Council and mapped out external assistance, creating a database of projects planned or implemented with external assistance.

Table 8

Expenditures according to objectives of the Strategy, thousand MDL

No.	Specific Objective	Medium-Term Budget Framework / External Assistance			Budget Programme
		2014	2015	2016	
1	2	3	4	5	6
1.1.	Enhancing access to quality early education so that the rate of inclusion in pre-school education of 3-6-year-olds raises from 82% in 2012 up to 95% in 2020, of 6-7-year-olds - from 92% in 2012 up to 98% in 2020				
	'Global Education Partnership' Project, funded by UNICEF and the World Bank	22985.6			
	'Rehabilitation of Pre-school Infrastructure' Project, funding by the Government of Romania	352620.0			
	'Extending the Successful Model of Inclusive Pre-School Education in the Republic of Moldova' Project funded by the Czech Development Agency	5866.8			
1.2.	Provision of access to 12-year general compulsory education (lyceum or secondary vocational education), so than by 2020 the rate of enrolment of persons aged under 19 years reaches 90%.				
1.3.	Increasing attractiveness and facilitating access to technical vocational education so that the share of pupils targeting this education increases by 10% by 2020.				
1.4.	Raising the rate of enrolment in higher education in areas important for social-economic development of the country, so that the share of graduates of higher education among 30–34- year-olds reaches 20% by 2020				
1.5.	Extending and diversifying the lifelong learning system, so that by 2020, 10% of the adult population (25-64-year-olds) participates in training programmes				National Employment Agency - 5 supporting programmes
1.6.	Fostering and ensuring inclusive education at the level of the education system so that the rate of access to education of children with special educational needs increases by at least 10% annually				
	Inclusion of support employee in the staff	29864.5	29864.5	29864.5	Primary education Gymnasium education Lyceum education
	Establishment and provision of inclusive education resources	37224.0	37224.0	37224.0	Primary education Gymnasium education Lyceum education
	Establishment of district/municipal psycho-pedagogical assistance services	22186.5	22186.5	22186.5	General services in education
	Republican Centre for Psycho-Pedagogical Assistance	659.2	701.7	709.4	General services in education

	Training of staff in inclusive education	8729.0	8862.0	8862.0	Professional improvement of staff
	Staff training in inclusive education (pre-school children)	1388.5			Early education
1.7.	Social-educational reintegration of children placed in residential institutions so that the number of children in these institutions reduces by 25% till 2015 and by 50% till 2020, and transformation till 2015 of at least 20% of the residential education institutions in general education ones, and at least 25% till 2020				
	General and vocational education programmes for children in detention	500.0	500.0	500.0	Special education
1.8.	Provision of conditions and implementation of actions so that school dropout in primary and general secondary education decreases by at least 10% annually				
1.9.	Provision of conditions favourable to socio-linguistic integration of representatives of ethnic minorities and migrants				
	Improvement of the quality of learning of Romanian language	4887.5	5681.3	5681.3	General services in education
	Romanian language courses for foreigners	189.0	189.0	189.0	General services in education
1.10.	Development of the system of career counselling and career designing throughout life				
1.11.	Ensuring a protective school environment able to prevent violence against children and promptly intervene to identify, refer and assist child victims of violence				
2.1.	Ensuring child-centred early education and successful transition to school				
	'A good start in life for rural children in Moldova' Project, funded by the Liechtenstein Development Service	1862.0	8310.4		
2.2.	Ensuring relevance of primary and general secondary education (curricula)				
	'Support for Education Reform in the Republic of Moldova' Project, funded by the Open Society Foundation	12733.5	4244.5		
2.3.	Curricular and methodological provision of vocational and technical education, in accordance with the National Qualifications Framework by 2020				
	Piloting and implementation of the entrepreneurial education curriculum		4975.4		
2.4.	Upgrading of the university curriculum from the point of view of focusing on competencies, learner and needs of the economic environment				
2.5	Fostering of research as an advanced vocational training tool and a vector for promotion of performance and quality in higher education				
3.1.	Enhancing access to quality education by providing education institutions with modern equipment useful to the educational process				
	Implementation of educational software in vocational and technical education		6400.0	4800.0	Secondary vocational-technical education
3.2.	Development of digital competencies by preparing and applying digital educational contents in the educational process				

	1:1 e-learning in 15 (10) institutions	6000.0	6000.0	6000.0	Gymnasium education
3.3.	Enhancing effectiveness and efficiency of school management at system, school and class levels by means of information technologies (EMIS)	2227.8	929.4	537.5	General services in education
4.1.	Enhancing attractiveness of the teaching profession, attracting and maintaining skilled teaching staff in the system, so that the average age of teaching staff engaged in the education system decreases by 3 years until 2020, the average salary of teaching staff matches the average salary in the economy and the rate of early abandonment of teaching activity decreases by 10% (salaries and social benefits)				
	Development of a new teacher salary system	1097.4	354.5	180.0	Policies and management in the field of education
	Increase of salaries				
	Social benefits				
4.2.	Ensuring a quantitative and structural balance between supply and demand of the teaching staff at all levels of the education system, so that education in all institutions across the system is fully assured with qualified teachers of subjects of study				
	'Future English Teachers School (FELT School)' project, funded by the Liechtenstein Development Service	709.9	295.8		
4.3.	Reconceptualisaton of the initial training of teachers by developing their competencies required to pass the new educational path characteristic to a complex environment, in a globally changing society of knowledge				
	Professional development at workplace - mentoring service	4551.6			Early education
	Implementation of entrepreneurial courses, foreign languages, etc. in vocational education.		1600.0		
4.4.	Enhancing efficiency and flexibility of continuous training system for teachers and managers				
5.1	Development of the national education standard system				
	Elaboration of occupational standards and national qualifications frameworks	1600.0	1600.0	1600.0	Secondary vocational-technical education
5.2.	Elaboration of institutional framework for quality assurance in education				
	Establishment of the National School Inspectorate for Primary and General Education (including staff assessment)	14994.6	13716.3	6039.6	Ensuring quality in education
	Establishment of the Curriculum and Evaluation Agency	1271.8	1295.9	1436.1	Ensuring quality in education
	Establishment of the National Agency for Quality Assurance in Vocational Education	3000.0	3000.0	3000.0	Ensuring quality in education
6.1	Improvement of planning and management of the network of educational institutions				
6.2.	Streamlining of education funding				
	FF experts from WB PRIM	1060.0	1012.8	321.5	Policies and management in the field of education

	Elaboration of new mechanisms for funding of pre-school institutions		580.0		Early education
6.3.	Upgrading of the infrastructure and the technical and material basis of the educational institutions				
	Work management	561.2	696.3	1864.7	Policies and management in the field of education
	Works of upgrading of primary and general secondary education institutions	90237.3	99198.8	132923.1	Primary education Gymnasium education Lyceum education
	Modernization of pre-school education	3605.3			Early education
	Modernization of dormitories of vocational education and study rooms	9296.0	40292.6	55000.0	Secondary vocational-technical education Post-secondary vocational technical education
	Centres of Excellence - vocational education institutions	4000.0	84000.0	130000.0	Secondary vocational-technical education
	Modernization of higher education institutions		12582.2		Higher education
6.4.	Provision with textbooks and other teaching materials				
	Pre-school institutions	15774.6			Early education
	Vocational and technical education (or 1.5)		1600.0	1600.0	Secondary vocational-technical education
	primary and general secondary institutions	26520.3	39849.2	29838.4	School curriculum
7.1.	Holding society accountable for provision of quality education	668.4	678.6	689.4	General services in education
7.2.	Enhancing pupils' involvement in decision-making, including in elaboration, implementation and evaluation of educational policies				
7.3.	Ensuring effective parental education to improve childcare and education practices				
7.4.	Fostering of partnerships for education				
	Total:	**292094.5**	**425571.0**	**481047.0**	

MONITORING AND ASSESSMENT OF THE STRATEGY

In the context of implementation of this Strategy, performance of the actions will be monitored and the obtained results will be assessed. The monitoring and assessment shall ensure achievement of the priority actions of the Strategy and that they lead to reaching the objectives and vision set out in the Strategy.

The Ministry of Education will coordinate all the actions envisaged in the Strategy for long-term and the short- and medium term planning processes. Implementation will be constantly monitored with development of annual reports. These reports will analyse to what extent the priority actions outlined in the Strategy have been identified, planned and implemented.

During the implementation of the Strategy, the Ministry of Education will twice develop comprehensive reports assessing the extent to which the objectives of the Strategy have been achieved and the changes made in the implementation process. These reports will analyse to what extent priority actions have led to achievement of the objectives and vision of the Strategy. The extent of achievement of the expected results will be assessed based on the result indicators given in Table 9.

Table 9

Strategy's monitoring indicators

Indicators	Source	Initial number (2012 or the specified year)	Intermediary target number (2017)	Final target number (2020)
1	**2**	**3**	**4**	**5**
Access				
Rate of enrolment in pre-school education (3-6 years old),%	National Bureau of Statistics	82	90	95
Rate of enrolment in pre-school education (6-7 years old),%	National Bureau of Statistics	92	96	98
Gross rate of enrolment in primary education,%	National Bureau of Statistics	93,8	97	98
Discrepancy between rural and urban environment, %	National Bureau of Statistics	21,3	8	5
Gross rate of enrolment in gymnasium education, %	National Bureau of Statistics	86,7	95	98
Discrepancy between rural and urban environment, %	National Bureau of Statistics	14,4	7	3
Number of children who dropped out school	Ministry of Education	143	100	57
Number of children with special educational needs attending traditional schools	Ministry of Education	3.500	4.550	5.600
Number of children in residential institutions	Ministry of Education	1.700	1.275	850
Number of residential institutions transformed into general education institutions,%	Ministry of Education	35	28	26
Rate of inclusion in education of persons aged under 19 years,%	National Bureau of Statistics	80,4	92	100

Share of district schools that meet quality standards for a child-friendly school,%	Ministry of Education based on assessment of an independent company	-	35	70
Relevance				
Share of employed persons aged 25-34 who graduated only from primary or general secondary education,%	National Bureau of Statistics	38,9 (2013)	40	35
Increase in the share of pupils targeting vocational education,%	National Bureau of Statistics	-	5	10
Number of developed occupational standards	Ministry of Education	4 (2013)	50	150
Share of graduates with a university degree in the population aged 30-34,%	National Bureau of Statistics			20
Computer coverage rate, pupil/student per computer	Ministry of Education	20	15	10
Increase in the share of the population aged 25-64 who participated in lifelong learning programmes,%	Ministry of Education based on data of the National Bureau of Statistics	0.1	5	10
Quality				
PISA results, % of the OECD average	Organization for Economic Cooperation and Development			
Reading		78,7 (2009+)	85,0	90,0
Mathematics		80,0 (2009+)	85,0	90,0
Sciences		82,4 (2009+)	87,0	93,0
Number of education institutions, where discrepancy between the average grade for the academic years and the average grade of the baccalaureate examination is higher than 1.5 points	Ministry of Education (Examination and Evaluation	249	150	50

	Agency)			
Share of accredited programmes in the total number of programmes,%	Ministry of Education (National Agency for Quality Assurance in Vocational Education)	0	25	50
Share of expenditures on science and researches for universities,%	Research Funding Agency	16,4 (2013)	40	60
Hirsch index (research productivity),% of the average in Eastern Europe	SCImago	13,1	20	50
Pupils /teachers ratio	Ministry of Education based on data of the National Bureau of Statistics	11	15	17
Average monthly nominal salary in education, MDL,% of the average salary in economy	National Bureau of Statistics	87		100
Rate of early abandonment of teaching activity,%	Ministry of Education			Decrease by 10%
Average age of teaching staff in education, years	Ministry of Education			Decrease by 3 years
Share of teachers with the Ist and higher teaching degree,%	Ministry of Education	10,7	12	20
Share of management staff who hold management degree	Ministry of Education	28,4	35	50

VII. RISKS IN THE COURSE OF IMPLEMENTATION OF THE STRATEGY

The analysis of the current situation shows that the problems in education are due not only to the demographic decline, obsolete teaching methods or the flawed system of professional development of teachers. The education system is not isolated, is affected by erosion of governance that affects the entire society, including state institutions, civil society organizations, teaching and management staff, parents and even children. Therefore, the risks that can arise in implementation of the reforms in a large field such as education are numerous and the Strategy can only be successfully implemented if its vision and objectives are assumed at both government and social levels.

The Strategy 'Education 2020' is exposed to the following risks:

1) political instability and global changes of conjuncture;
2) lack of political consensus between the groups covered by the Strategy on the proposed policies and legislative actions;
3) poor implementation capacities of central, local and institutional public authorities;
4) institutional and human reluctance to make the changes proposed in the Strategy;
5) insufficient financial resources to cover the expenditures associated with implementation of the actions of the Strategy;
6) poor capacities of coordination and monitoring of the actions set out in the Strategy.

The Ministry of Education will take all necessary measures to reduce the effect of the risks that it can influence, and to avoid emergence of unpredictable risks. The Ministry of Education will carry out a comprehensive communication and consultation process in order to obtain a broad consensus of the society and political forces on the Strategy and the legislative actions it involves, in particular the Code of Education, so that the documents are implemented sustainably. The Ministry will invest in strengthening capacities of all institutions involved in implementation of the Strategy. Financial risks will be addressed by continuing the measures to improve efficiency of public spending on education, preservation in the education sector of saved resources, better planning of internal resources in the Medium-Term Budget Framework and attracting additional sources, including external ones. Some of the actions outlined in the Strategy are already included in the Medium-Term Budget Framework and, for others the sources are to be identified.

Achievement of the objectives set out in the Strategy depends on both the political will and capabilities of the Ministry of Education, as well as on the ability of other authorities to contribute to fulfilment of the vision of the

Strategy. Undertaking implementation of the Strategy at the Government level is a key condition for the vision and the proposed objectives to become reality. Moreover, implementation of this Strategy requires coordinated actions of other major actors engaged in education, such as local public authorities, educational institutions and the teaching and management staff. Consequently, adoption of the Code of Education and other legislative acts, coordinated with the provisions of the Strategy, is essential for its successful implementation.