

REPUBLIC OF ARMENIA

MINISTRY OF EDUCATION AND SCIENCE



STRATEGY
OF PRELIMINARY (CRAFTSMANSHIP) AND MIDDLE
PROFESSIONAL EDUCATION AND TRAINING
OF THE REPUBLIC OF ARMENIA

YEREVAN 2004

This document was developed for the Ministry of Education and Science by the team managed by Arcadis BMB (www.bmb.nl) Consultants within the framework of TACIS 2003/69090 project “Support to the Development of a Strategic and Legal Framework for the Implementation of the VET Reform” funded by the European Commission.

The Strategy was approved by RA Government on 6 May, 2004.

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1. INTRODUCTION

The strategy paper of the Armenian preliminary (craftsmanship) and middle professional education and training (hereafter VET) was developed through the joint efforts of Armenian and international experts. This document presents the reform principles of VET and offers its most important areas and problems. It is based on the international experience applicable in Armenia and needs to have a legislative framework for making it more pragmatic.

While developing the strategy the requirement for the harmonization of its provisions with constitutional acts, general educational policy of the country, national programme of socioeconomic developments and priorities was taken into consideration.

The strategy is based on the following approaches:

- identification of long-term prospect (6-10 years) which as a result of the definition of roles and competences will ensure enough time to achieve results, as well as will facilitate any changes to be made in the strategy later;
- identification of realistic objectives and outline of definite ways to implement them.

At all stages of the strategy development interested parties have been involved to the most possible extent, and large-scale discussion and consultancy have been carried out with their attendance.

2. THE CURRENT STATE OF PRELIMINARY AND MIDDLE PROFESSIONAL EDUCATION SYSTEM IN ARMENIA

Various degrees of education in Armenia are implemented through different educational programmes. An educational programme defines the contents of education of certain level and direction, the scale (extent) of necessary knowledge, abilities and skills.

The Armenian law on education defines the following educational programmes, which are currently underway in Armenia:

1. general educational programmes (basic and supplementary)
2. professional educational programmes (basic and supplementary)

2.1. Overview of the preliminary and middle professional education system

Professional educational programmes are aimed at the preparation of specialists with relevant qualification through the sequence of the general and professional levels of education the shaping of abilities and skills, enlargement of the scope of knowledge and increase of qualification.

The basic professional educational programmes are the follows:

1. preliminary professional (craftsmanship)
2. middle professional
3. higher professional
4. post-graduate professional

The purpose of the *preliminary professional (craftsmanship) education* is the preparation of personnel with craftsman qualification on the basis of general education.

The preliminary vocational education can be implemented in preliminary vocational educational institutions – vocational schools, in training centres of organizations, as well as middle professional and higher educational institutions.

Until 2001 the preliminary vocational education (formerly: professional–technical education had been implemented in vocational training schools. In 2001 there were 58 vocational training schools in Armenia, from among which 19 were under the subordination of the Armenian Ministry of Education and Science and 39 – under the subordination of provinces (marzes) of Armenia, including the Yerevan city council.

Since vocational training schools were not anticipated as a separate type of educational institution by 1999 within the framework of the programme on the rationalization of the Republic of Armenia preliminary and middle professional education system approved by the Armenian government, the operating vocational training schools in Armenia were reorganized and reshaped into high schools with vocational shifts (45 vocational training schools) and were reunited with middle professional educational institutions (9 vocational training schools) or were dissolved (4 vocational training schools).

Currently the preliminary professional education is implemented in 10-12 middle professional educational institutions.

The purpose of the *middle professional education* is the preparation of personnel with middle professional qualification enlargement and deepening of general and professional knowledge based on secondary (complete) general education.

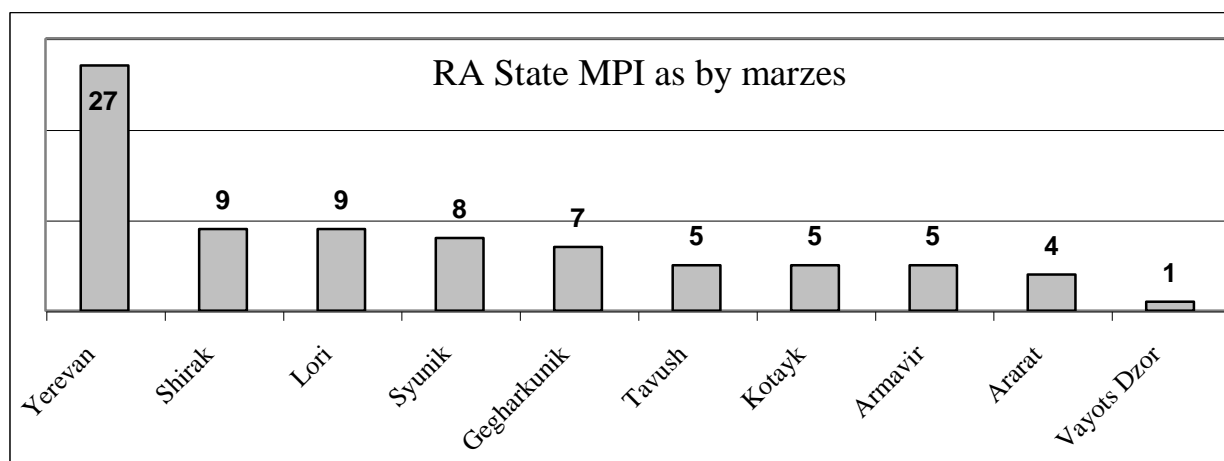
The middle professional education is implemented in middle professional educational institutions: colleges.

The graduates who have completed the attestation in middle professional educational institutions are granted the qualification of middle professional junior specialist.

Currently 80 state middle professional educational institutions operate in Armenia. They are listed in Annex 1. In 2002 in the Armenian state MPI there were 29310 students from among whom 19348 or 66% were women, 22268 students or 76% studied on paid basis.

In private MPI (22) the number of students was 1747, from among whom 1268 or 72.6% were women.

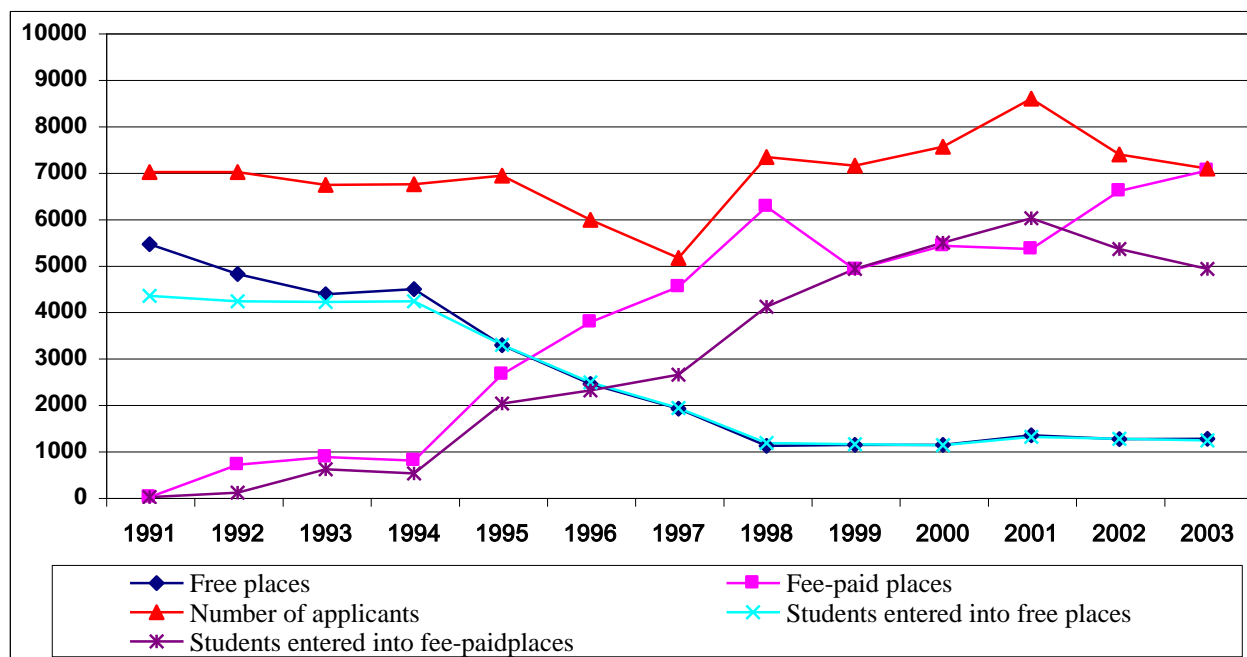
Currently in the middle professional education system 0.29% of the population is involved. The highest indicator was registered in 1980 (0.52%). Since 1965 the lowest indicator was registered in 1995 (0.21%).



0.11% of the population is involved in the preliminary professional educational system, which coincides with indicator of 1936 – the year first educational institutions of the system were established. The highest indicator in this field was also registered in 1980 (1.73%).

Over the recent years there are growing trends of the number of applicants for middle professional educational institutions.

The following chart presents the picture of admission MPI of the Armenian Ministry of Education and Science for the years 1991 to 2003.



2.2. Implementation of the preliminary and middle professional vocational education

The tuition in professional educational institutions is implemented both on paid and free of charges basis. The number of admission seats of free studies in state institutions is annually approved by the Armenian government according to professions stemming from the demand for relevant specialists and the extent of funding anticipated by the state budget for professional education.

The seats approved by professions are allocated by ministries to the institutions under their subordination. The relevant ministries determine the number of admission seats for paid tuition according to institutions and their professions.

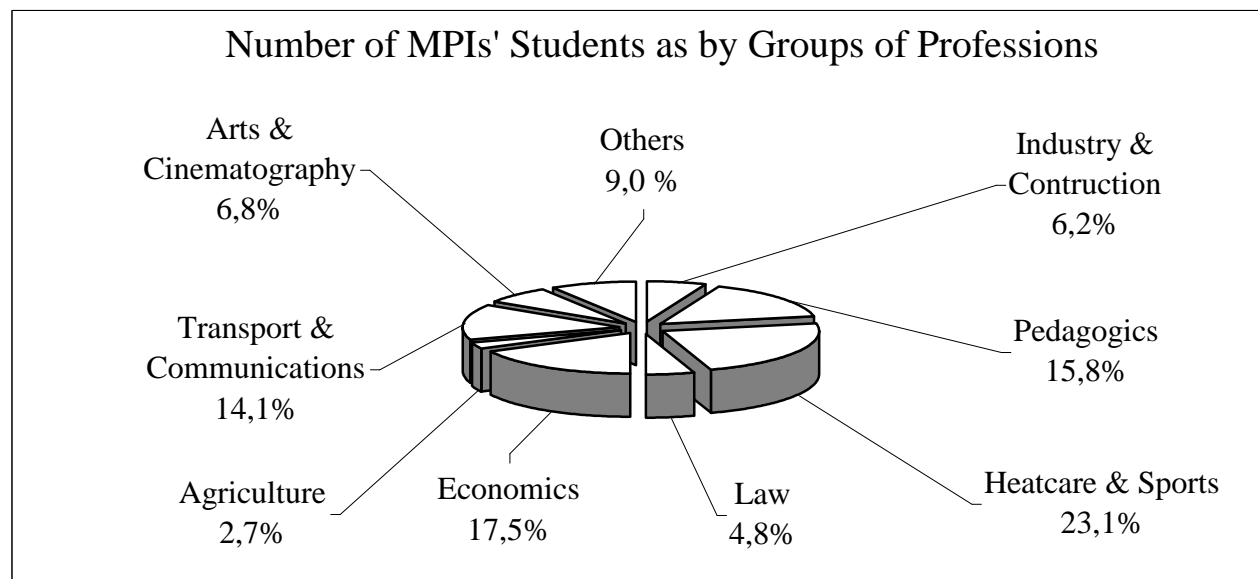
The amount of the tuition fee is determined by the educational institution. It ranges from 60 to 350 USD in their equivalent in drams and depends upon the profession.

The admission to vocational educational institutions takes place on competitive basis. Entrance exams for 2-4 subjects are anticipated for admission of each profession of free tuition.

In 2002 the Armenian Government approved the new list of professions for middle professional education, and in 2003 those of preliminary professional education (Annexes 2 and 3), which should to the maximum extent comply with Armenia's economic requirements, its directions and in the mean time meet the requirement of comparison with the operating professions in other states, and in the first place in the CIS countries with the view of ensuring the mutual recognition of certificates and qualification of specialists to be prepared. The training in preliminary and middle professional institutions is implemented through curricula of professions, which include

the list of subject taught, the time-table anticipated for each of them and distribution according to terms. In conformity with RA law on education curricula and subject programmes pursuant to the state educational standards approved by the state body authorized for education, are developed and approved by educational institutions.

Teachers with university degrees work in professional educational institutions. Teachers



with no university degree but having middle professional education comprise 3-4% of the pedagogical personnel of the entire system. In 2001-2002 academic years the number of teachers in vocational educational institutions totalled 4210, from among which 3088 are full-time teachers. Women constitute 73.8% of the staff (personnel), which is basically due to remuneration conditions unattractive for men. Another concern is the age of the teachers. The average age is 55. The average number of students per professor is 70, which is not a rational relationship.

Theoretical teaching continues to prevail during the studies. Usually a three to four months-long theoretical teaching is followed by practical training lasting for two to four weeks.

The following types of practical training are applied: educational (implemented in educational institutions), technological (implemented in organizations) and pre-diploma (implemented immediately before the attestation)

Currently due to the industrial decline, abrupt reduction of the demand for specialists and privatization of enterprises serious difficulties are encountered in organizing practical training. For these reasons practical training are not fully implemented and in some cases they are of a formal nature, which has a very negative impact on the degree of graduates' professional qualification.

Despite the availability of premises for all vocational educational institutions in Armenia their logistics is quite different: laboratory and workshops facilities, didactic aids, training and methodological literature. With the exception of a number of

humanitarian educational institutions which are provided by comparatively modern training facilities the rest, in particular, institutions of technical orientation, are equipped both by physically and morally deprecated property (furniture) not least complying with the modern production and technological requirements. It has not been refurbished over the last 15-20 years basically due to the unavailability of financial resources. Most institutions have one or two computers and only some of them dispose of Internet.

Textbooks also continue to be extremely insufficient, since over the last years specialized literature has not been published in Armenia, and mass procurement of foreign literature is impossible due to the lack of financial resources and is also senseless for students who do not have satisfactory knowledge of foreign languages, except for Russian.

In Armenia there are no special educational or training programmes for the vulnerable groups of the population: disabled and socially denied people, etc. The legislation only provides that disabled persons, orphans and children and spouses of the killed military are privileged while entering state-owned professional educational institutions.

2.3 Governance of preliminary and middle professional education

In the Republic of Armenia the Armenian Ministry of Education and Science is the authorized body for the state governance of education.

However a number of other Armenian ministries also have middle professional educational institutions under their subordination. The direct management of an educational institution is implemented by the director, who is appointed and fired in conformity with the regulation of the educational institution. In the case of state educational institutions it is implemented by the relevant ministry.

Territorial local self-governing bodies do not enjoy the right to develop and implement preliminary and middle professional education policy.

Practically an organized system of professional orientation does not exist, not a single body responsible for that issue operates. Each educational institution independently fulfils that function, which is not of substantiated orientation and consulting nature. As a result the inclinations and abilities of the individual and situation in the labour market are not taken into consideration from the perspective of the possible future employment.

2.4. Funding of preliminary and middle professional education

State educational institutions in the free of charge system are completely funded from the state budget. However the state actually provides only maintenance expenses: salaries of teachers, scholarships, some public utilities' expenses. These allocations are provided due to the number of the students in the free tuition system.

Expenses necessary for the development of the system, namely, reconstruction of premises, procurement of modern furniture and equipment, training of management and

professors, development, procurement of new training and methodological literature handbooks are reserved to the educational institutions and should be carried out at the expense of extra budgetary resources. However these resources are also very scarce and are basically anticipated for the payment of salaries.

In the 2001-2002 academic year the receipts of state middle professional educational institutions totalled 2,175,094 thousand dram, which in the average for one institution is 29 mil. drams or 46.5 drums or 46.5% was allocated from the state budget, constituting ca 4% of republic's education and science budget; 1 117 149 thousand drams or 51.4% was obtained from the tuition fees of student; 45978 thousand drams or 2.1% – from other sources, including the amounts from various paid services by institutions.

To compare we should mention that the receipts from private middle professional educational institutions totalled 113716 thousand drams or ca 5 million drams per one institution.

Over the recent years ca 11% of the state budget of Armenia or 2.7% of the GDP were spent in the field of education and science. It is less than the average world percentage (3.4%), less than countries with average incomes (3%) and less than the developed European and Central Asian countries (5%). In line with this Armenia lags behind countries with low incomes for its state expenses on middle and higher professional education. In 1989 the state expenses for higher education constituted 0.9% of the GDP or 1.3% of the state budget, in 2000 (in 2000 the budget allocations for education constituted 2.63% of the GDP) 0.3% of the GDP or 1.14% of the state budget were spent on higher education; 0.11% of the GDP or 0.4% of the state budget - for middle constituted education, which is rather low than the world indicators. It is also less than these of countries with low incomes.

In state middle professional educational institutions 47% of financial resources were spent for salaries, 16.9% – for compulsory social insurance payments, 12.3% – for scholarships and only 5.2%, which in the average totals 2300 USD for one institution, for capital construction, procurement of furniture and equipment. With such financial resources it is difficult to expect the refurbishment of the logistical base, which, as it was mentioned above, is both physically and morally out-dated (depreciated) and basically does not meet the current requirements.

3. BASIC OBJECTIVES AND TASKS OF THE REFORM STRATEGY OF THE PRELIMINARY AND MIDDLE PROFESSIONAL EDUCATION SYSTEM IN ARMENIA

3.1 Basic Objectives of the Reform

The basic objectives of the reform through the establishment of a democratic and efficient system of preliminary and middle professional education in Armenia are as follows:

- ensure the preparation of qualified specialists, effectiveness of a system aimed at the establishment of their abilities and skills;
- ensure the formation of a modern individual and citizen promoting a new level of the nation's developments; reproduction and development of the intellectual potential and labour force of the society, competitiveness and social consolidation leading to the political stability and democracy;
- ensure life-long possibilities for the success of everybody based on individual abilities of students, and harmonization of economic and labour market requirements.

3.2 Strategic tasks of the reform

The strategy of the reforms of the Armenian VET system puts forth a number of tasks, and the result of their solution should be as follows:

1. **An open and democratic system**, which ensures equal access for all citizens to this system from different starting points and/or following various stages of the previous education or work experience depending on individual characteristics. This should be equally applicable for all organizations meeting the respective standards implementing middle professional education and training irrespective of their legal status and properly type.

2. **Continuity of education**, which will enable an individual to ensure the continuity of education to the extent he/she will wish. For these purposes various levels of education: secondary, preliminary and middle professional, higher professional should be interconnected. This in particular relates to the preliminary professional education system.

3. **Quality of educational services** - its insurance implies the establishment of a system providing professional education and training including up-dated general knowledge and scientific achievements, technological developments, cultural and training methods. This requires the integration of general and specialized subjects, a new national professional programme (educational standard), procurement of modern equipment, involvement of respective teachers, launching a training system for trainers, improvement of practical training in two directions - establishment of modern

laboratories and in the first place, organization of different stages of practical training in working places.

4. Providing skills by individual abilities for which the VET system should offer new, more efficient means and procedures of orientation and monitoring based on individual inclinations and abilities of students (respectively before admission and during the studies). However given the restricted financial resources the system needs to be rationalized taking into consideration the requirements of the labour market and possibilities to invest.

5. Providing skills according to economic and labour market needs - the prerequisite is the VET system which more flexibly responds to the on going changing needs of production. There will be a better combination if the entire available information and a more comprehensive survey of the labour market national, regional and locals levels are used. It will be implemented on permanent (institutional) basis with the participation and cooperation of all interested parties and social partners.

6. Efficiency of expenses, which will be conditioned by the comparison of the available and potential sources of funding. For these reasons a result accounting system of the unit investment will be introduced. The current approach of rendering the same services by different systems will be reviewed with the view of increasing the efficiency.

7. Inclination of different forms of VET with in a single statutory framework, which stems from the need of defining the responsibilities of interested parties and leads to the definition of different types of professional education activity, initial and continuous professional preparation and their relationship within a single statutory framework. Instead of a VET system operating under the subordination of different bodies there is a proposal to establish a national structure with its regional branches for the efficient coordination of all functions of vocational training. Guided by the same principle the current infrastructure and human resources of professional education system could be used for the implementation of vocational training functions coordinated by the Armenian Ministry of Labour and Social Issues.

8. Rationalization of the management and administration of professional educational institutions, which will ensure its efficiency and transparency inspiring confidence to all players. The systems of the appointment of the leadership of educational institutions and decision-making in this field should be reviewed, significantly improving the management skills of the leaders of all levels.

9. Social partnership which will be revealed through the development of almost all components of VET: structure of system coordination, disclosure of skills and needs, modernization of curricula, accreditation, funding, etc, and will be implemented by the principle of long-term tripartite cooperation directing towards the review and clarification of roles and responsibilities of the social partners.

10. Transparency and accreditation, which are the basis for an easy comprehensive system for students, parents, teachers and employers, where the conditions for the

reasoning of decision -making and processes are known in advance. The attestation of the students implemented through this approach will reflect the level of the educational programme and achievements of the students leading to the inclusion of a national system of accreditation based on the principle of credit ability. This should involve not only the representatives of the state (RA Ministry of Education and Science) but also social partners, in particular representatives of employers.

11. Integration with international developments in the field of education. The system of accredited qualification will be its basis. It should be obvious and understandable in order to ensure the comparison with internationally accepted procedures and requirements.

12. Life-long learning, which consists of any adaptation or refreshment of the knowledge and skills of the labour force required from the employees in order to preserve their jobs or, from the unemployed for assuming jobs. The labour force should be able to learn during the entire working life in accordance with the wish and/or in compliance with labour market requirements.

4. IMPLEMENTATION OF THE STRATEGIC TASKS OF SYSTEM REFORMS

Below the practical ways of solving the strategic problems of preliminary and middle professional education reforms are presented, which are divided into the following sub points:

1. Substantiation of the problem
2. Ways of solving the problem
3. Responsible body
4. Legal provision of the solution of the problem and measures
5. Dates
6. Necessary means

1. Open and Democratic System

A. This problem is solved through the provision of equal access for every citizen to preliminary and middle professional education and training system, and free learning, according to which citizens, in particular the young people, willing to enter the system, should not meet any obstacle. It is necessary that the qualification of the individual at the end of graduation of studies be recognized, and later the knowledge obtained by the student be strengthened.

Equal and free education is also closely linked with economic inequalities, which create unfavourable conditions for children from needy families. Perhaps such a system of standards should be used, which could take into consideration also the incomes of families. In this way the public resources can be redistributed, which will enable to involve more children from families with low income. In professional educational institutions, at least in the current form the issue of tuition fees is legislatively disputable whereas the phrase “on competitive basis” in the Armenian Constitution requires a clear definition of its legal application.

In the VET system in ensuring equal opportunities for everybody there is one more inconsistency. Male students are in comparatively unfavourable conditions, since attaining the age of 18 they interrupt their education and are called up for a two-year military service. This inequality is of dual nature - on the one hand there is inequality between the rights of young men in the systems of higher and preliminary and middle professional education, on the other hand between the rights of male and female students.

For a satisfactory activity of a democratic system it is necessary to define a complex of respective standards, which will be equally applied for all educational institutions irrespective of their legal status and property form.

B. One of the most important objectives of the proposed strategy is the elimination of system inequalities, which will increase the prestige and attraction of the preliminary and middle professional education.

However if in conformity with the phrase “on competitive basis” only applicants with high scores should have access to free education, the law should approve a more socialized programme for the inclusion of students. It will be clearly formulated that while attaining the age of 18 male students of preliminary and middle professional education system are given the right to postponement of military service till the end of their education, which, perhaps, is a matter of future.

C. The issue of ensuring an open and democratic system of preliminary and middle professional education system in Armenia is within the powers of the National Assembly of Armenia and Government.

D. The safeguards of the solution of the problem should be clearly laid down in the law on “Preliminary and middle professional education” and other RA laws.

E. The required changes of the system will be applied starting from 2005-2006 academic year following the passage of the respective law and sub legislation. One year after the implementation of new provisions positive results will be expected.

F. Extra financial resources will not be required at the initial stage of the application of the provision on financial assistance anticipated for students from families with low incomes, since the resources currently allocated from the state budget will be redistributed. An option is proposed: further enlargement will be implemented if the financial burden is assumed by the Armenian Governments.

2. Continuity of Education

A. Any system of professional education and training should enable its students to continue their education path as long as they wish.

Continuous education is perceived as a process ensuring the uninterrupted development of an individual, which is divided into stages, each of which creates prerequisites for the transition to a new, higher level (degree).

In this respect it is necessary to fully ensure the access or return of the students to the system, if it takes place following their removal from their work or previous education degree for a certain period of time. However this requirement relates to the recognition of the qualification acquired at any stage, which will ensure the link of the students with previous educational pathways and current prospects. The qualification should be transmissible for the students in restoring themselves in the system.

The qualification should be harmonized with the internationally accepted standards of qualification (scale suggested by the CEDEFOP and approved by ETF).

Special attention should be drawn to the requirement of ensuring continuity of education implemented by diverse institution.

These preliminary professional (craftsmanship) educational programmes are implemented in:

- a. preliminary professional (craftsmanship) educational institutions – crafts colleges
- b. craftsmanship shifts of senior schools of general educational institutions
- c. middle professional educational institutions
- d. training centres
- e. penitentiary institutions
- f. individual professional training (apprenticeship)

Middle professional educational programmes are implemented in:

- a. middle professional educational institutions - colleges
- b. higher educational institutions

The system of preliminary and middle professional education should safeguard the continuity and sequence of the educational pathways of students.

B. With the view of specifying of the system of preliminary and middle professional education and increasing its efficiency the following educational pathways and their access should be identified (they are presented in details in Appendix 4):

1. preliminary professional (craftsmanship) education based on the basic general education without secondary (complete) general education, access to the labour market;
2. preliminary professional (craftsmanship) education based on the basic general education with secondary (complete) general education, access to the next degrees of the education system and labour market;
3. preliminary professional (craftsmanship) education based on the secondary (complete) general education, access to the next degrees of the education system and labour market
4. middle professional education based on the basic general education without secondary (complete) general education, access to the system of higher education for the respective profession and labour market;
5. middle professional education based on the preliminary professional education, access to the system of higher education for the respective profession and labour market;
6. middle professional education based on the secondary (complete) general education, access to the next degrees of the education system and labour market;

The introduction of the credit system will be necessary for the appropriate process of the transition of one educational programme to another.

C. Responsible bodies are: the RA Ministry of Education and Science for the organization and implementation of education; RA Ministry of Labour and Social Issues for ensuring the link with the employment field and RA Ministry of Foreign Affairs for the international recognition of qualifications.

D. Educational programmes (educational pathways) and their access to the degrees of qualification and the link between them should be defined legislatively.

Pursuant to educational programmes through sublegislation the list of professions and the normative dates of studies will be defined, other matters related to the organization of the educational process will be regulated.

E. The new system will be launched from 2005-2006 academic year following the passage of RA law on Preliminary and Middle Professional Education; amendments to RA law on Education and development and approval of relevant sublegislative acts.

F. Additional financial expenses or human resources practically will not be required.

3. Quality of Educational Services

A. The contents of education and teaching is the most important component of the preparation process of qualified specialists. It is conditioned by the objectives and requirements of the state and society targeted at the system of knowledge, abilities and skills of graduates, their ideological, political and professional qualification, development, the capabilities and needs of an individual.

The issue of the development and introduction of state educational standards is a priority and necessity, in particular in preliminary and middle professional education. It stems from the fact that only due to introducing standards it is possible to achieve the minimum educational and learning needs, provide transparency of the entire educational activity and assess the quality of the education system, enable to identify the equivalence of the level of education and granted certificates.

Despite the availability of legal, legislative and sublegislative norms and recommendations to date state educational standards for any profession of preliminary or middle professional education have not been developed, approved and introduced.

Most part of the book fund, consisting of 1.5 mil. units concentrated in educational institutions are not used and is physically and morally worn out. Irrespective of the provision of information and communication technologies, which is perhaps, at a low level and their future possibilities, study literature is a basic source and axis of teaching contents.

Seventy-five percents of the buildings of state middle professional educational institutions needs capital repairs and 95% - routine repairs. And this is in case when the entire surface of these buildings is 338.1 thousand sq. meters; 11.94 sq. meters per student. The logistical base of all institutions needs to be modernized and refurbished, since the existing equipment is very obsolete and does not enable to implement even some part of practical and laboratory lessons at a satisfactory level.

The preparedness and awareness of the prevailing faculty are weak, which has its impact on the preparation of specialists, restricts the effectiveness of the institution activity and hinders its development and progress.

B. Thus the primary strategic task (step) aimed at the improvement of the contents of education and quality is the development of educational standards by professions and their introduction in the learning process. It is expedient to have a developed individual with a wide profile, who in the changing situation, within the framework of the still unstable economy could adapt himself/herself to the labour market requirements through not fundamental training or re-qualification.

For these reasons the scope and level of students' knowledge, abilities and skills should be identified and in a such way that the graduate becomes their holder in the conditions of the expected conceptual reforms of education and training, as well as new trends and rapid innovation of science and inventions.

With the view of improving the logistics of educational institutions it is necessary to:

- within the upcoming 6-8 months develop scientifically substantiated standards aimed at the modernization of the logistical base of preliminary and middle professional educational institutions;
- substantiate the financial resources necessary for the implementation of the aforementioned standards, including the extent, amount and dates of allocation provided by the state
- determine, that the annual scope of reforms in technical educational institutions should be no less than 25%, and in the others - 15-20%;
- furnish the laboratories and workshops with modern equipment, materials and accessories;
- computerize the education process, introduce modern communication equipment;
- provide the system with modern scientific, methodological, training and information literature and means.

C. The RA Ministry of Education and Science will be the main body responsible for the aforementioned. Other relevant ministries and agencies will also be equally responsible in for developing state educational standards by professions. A special role is reserved to the RA Ministry of Labour and Social Issues for the harmonization of standards with the labour market requirements and labour legislation.

The Armenian government will have the full competence of allocating necessary budgetary financial resources to ensure the implementation of the expected changes.

D. With the view of introducing and improving the state educational standards of vocational education the following steps will be taken:

1. improvement of the profession classifier in conformity with the labour market requirements and prospects of society developments;
2. improvement of profession, and specification of needs;
3. introduction and enlargement of educational information and communication technologies (ICT)

4. establishment of an organizational and methodological system supporting innovative educational programmes
5. development of labour market and population demands prediction in various education trends and levels.

The following should be organized and implemented at the state level: improvement of professional skills and training of the management and faculty staff in conformity with market needs once in every 2-3 years, which will be followed by attestation and improvement of qualification and training at the expense of in-college and inter-college resources.

E. The development of state educational standards will require at least 4-5 years. It should start with 5-7 standards annually; later the number of standards developed and approved within a year should gradually increase.

The timing of the radical improvement of the logistical training and production means and equipment of institutions will be conditioned by the scope of financial resources allocated for this purpose.

The training process of the pedagogical staff should start immediately after the adoption of the Strategy and be of a continuous and regular nature.

F. Both extra human and financial resources will be needed for the development of standards and improvement of the logistical base of institutions. The contribution by educational institutions cannot be sufficient. Investments will be required both from the RA state budget and on the part of other donor organizations.

With respect to the introduction of ICT in educational institutions it is expedient to make a lump-sum significant investment on condition that the further modernization of ICT takes place at the expense of the means of preliminary and middle professional educational institutions (PMPI). If deductions are made from tuition fees, at the initial stage it is possible to provide 20 students in PMPI by one computer and replace it by a new one once in every 4-5 years.

Organizational measures and certain investments are necessary for the refreshment and updating of at least 70-80% of the basic teaching literature of institutions -textbooks proposed by the relevant ministry and manuals for the next 8-10 years.

Customer organizations should also be responsible for the significant part of the logistical base of operating educational institutions. A definite part of the expenses should be covered by the educational institutions at the expense of the income from the paid educational services on their part, industrial activities and other extra budgetary work, which does not contravene the RA legislation.

4. Provision of Skills by Individual Abilities

A. The development of skills is one of the basic principles of the efficiency of the ability system of an individual, where all participants are able to meet their learning needs and requirements. It is impossible to fully satisfy the educational requirements of students since the labour market, the system of education services and professional training are not yet perfect. The economic, scientific and cultural fields are characterized by rigidity and conservatism, whereas the system of education is oriented towards the principles of humanism, therefore the students should be assisted in the choice of their future professions. The individual should be provided with information regarding his/her competitiveness in the labour market within his/her educational capabilities of the constant changes in the labour market and the economy. In this respect the system of VET should be closely linked with the requirements presented by the labour market and the industry. Therefore great importance should be attached to the issues of profession.

For a young man who faces professional orientation it should be clear that the knowledge obtained from various fields allow to develop the quality features of the profession in line with the necessary individual qualities and characteristics, and their existence or absence will play a decisive role in the choice of specialists in the labour market. Today's choice of profession tomorrow will acquire forms of social choice for the specialists and will solve the issue of his/her future public status. Otherwise the inconsistency of his/her professional and personal qualities will make him/her to face the need for professional training or retraining.

On the other hand professional orientation plays an important role also for those people who in order to return to their working activity are willing to be engaged in a professional training programme.

In Armenia the process of students' professional orientation and consulting is extremely poor and inefficient. The knowledge of teachers in this field is not sufficient as well as their physiological and pedagogical preparedness.

B. To implement this task a concept of professional orientation should be developed, and a structure responsible for the implementation of professional orientation and consulting, which will provide liaison between the professional education system and the labour market.

This structure can operate as subdivision of the VET development institute or as an independent organization under the auspices of the afore-mentioned institute. Besides it is expedient to anticipate a subject entitled "Introduction of Profession" for one hour per week in the curriculum of graduate forms of general educational middle school and once a month organize 'career day' in senior schools.

Due to professional peculiarities, gender and age it is necessary to identify the list of professions requiring certain restrictions.

C. The RA Ministry of Education and Science, the Ministry Labour and Social Issues are responsible for this issue. However other public administration bodies will also be responsible for the matter for providing precise data on the labour market of the given field. Employers and their associations should be in particular responsible for the current and future demand for the labour force, information on the professional requirements for employees.

Other non-governmental organizations, too, if they wish so, can be reserved some competences.

D. The system of professional orientation and consulting should be defined by legislation. The respective law should set forth the demand for the existence of a structure fulfilling that function in Armenia and the clear distribution of competences among other interested parties, including employers.

E. The system of professional orientation can be introduced no later than within a year after the passage of legislation and establishment of the respective structure. Actually it can be launched already prior to entrance exams of 2005-2006 academic year.

F. The introduction of an operating system of professional orientation will require means for ensuring the normal activity of the respective structure, training of the staff and publications. The expenses could be covered by the VET development institute, educational institutions and practically with the assistance of employers in line with restricted budgetary investments.

5. Provision of skills by economy and labour market needs

A. The creation of qualified labour force is one of the basic economic and social problems of Armenia. It is linked with the imperative of meeting the current industrial needs with their following aspects:

- scope and quality of the required labour force
- scope and quality of the labour force offered
- a number of related factors, e.g. province, age, etc.

In line with the low level of direct investments required in Armenia there is a permanent gap between the demand and supply of the working skills of specialists, which shapes a large-scale unemployment. The gap increases when the demand is low and the supply is big, when the employer becomes more capricious and uses the existing conditions for making the labour force cheaper.

Currently the Armenian Labour market is a collective notion, comprising a specific employer, abstract employer (characterless market), mediatory organizations like the state and private employment services, weekly newspapers with information on jobs, namely “Gind”, “Express”, “Yeter”, etc., education exhibitions.

Currently the employers in Armenia, except for single cases, freely benefit from the full cheap labour market and do not even have to apply to educational institutions since they do not see any difference between the old and new specialists. Currently it has not yet become a standard for employers to make investments and either on contractual basis or otherwise order specialists in the educational institution for their future needs: currently the employers are not education-targeted, whereas the MPIs in parallel with educational and training activities are obliged to maintain market-targeted activity. It is within the interests of educational institutions since the lack of jobs and the advertisements for admission are interlinked. The institution tries to attract employers for finding jobs for the specialists it has prepared, so that the employer could target itself towards the prepared specialist. Currently in the field of education two types of practice can be differentiated:

- practice of preparing specialists for specific employers;
- practice of preparing specialists for the general labour market;

The first one implies the preparation of specialists when specific requirements on the part of the employer are taken into consideration. In this case the profile can be restricted and deepened. The other one implies the preparation of specialists of wide range profile with several specializations typical of the transition period.

The current labour market does not enable to divide the professions into narrow specializations (qualification).

The above-mentioned gap between the market demand for the working skills of specialists and the current supply sometimes with respect to professional quality does not allow the specialists to claim for vacancies. The employer applies to the MPI in one case—for the deepening of qualification or requalification (retraining) of a related specialist.

The problem of relationship between the labour market demand and supply in the activity of MPI for a concrete education generation arises twice: during the admission and graduation.

During the admission there is a definite relation between the quality, number of applicants and admission possibilities of the institution. Besides the monitoring organized by the management of colleges for revealing the degree of interest of applicants towards professions, another monitoring takes place also on the part of the applicants and their parents regarding a given educational institution and the perspective demand for its professions.

Currently there is not any precise statistics on the employment of MPI graduates or admission to higher educational institutions.

B. The implementation of the aforementioned goals requires the following:

1. the employer should seek for reciprocal ways and launch education-targeted activity;
2. educational institutions should launch the following employer-targeted activity:

- employers could be invited as heads or members of commissions on term paper, thesis paper implementation or commissions on granting worker qualification;
- the organization of practical training of students could be directly linked to the employer with contracts concluded in advance;
- the programme of the practical training could be more practical and applicable and adapted to the activity of the parent enterprise of practice to the maximum;
- given the imperative of the new labour market conditions establish a respective unit in institutions, which could be involved in marketing during the entire academic year;
- with the view of giving a picture of the abilities and skills of a specialist to the employer develop and together with the diploma of every graduate present also a professiogram;
- administratively and favourably oblige the educational institution and the employer as partners linked with statehood and functions, to co-operate with each other regarding the demand and supply either directly or through the employment service;
- with the view of increasing the efficiency of the Armenian VET establish an electronic database of human resources and labour market links;
- establish a National Committee (Council) for the development and co-ordination of the activity of VET;
- provide information and advocacy on the demand priorities of the VET system;
- set up human resources service in educational institution with the view of launching market-targeted activity.

C. The RA Ministries of Education and Science; Labour and Social Issues, PEIs, as well as members of VET sitting in the National Committee, social partners, their associations, territorial administration and local self-governing bodies are responsible for the afore-mentioned measures.

D. The establishment and competences of the National Committee (Council), and the relationships between the social partners and the VET system will be determined by law. Other issues will be defined by sublegislative normative acts.

E. The implementation of the afore-mentioned goals can start following the passage of the law. In the event of necessary funding the launching of the system will require approximately two years.

F. The activity of the system providing a close link between the employers and the employees will require both human and financial resources. The total cost will be calculated from the following elements: research of demand for local capacities, introduction of software and computer technologies, preparation of researchers and staff, administrative costs and contingency, remuneration of specialists included in the

National Committee upon the decision of the RA Ministry of Education and Science, etc.

6. Efficiency of Expenses

A. The state budget is not enough to cover the VET system costs, including salaries, material, equipment and operational costs. The paucity of financial resources of educational institutions will not be enough for the implementation of reforms. They pay taxes from the amount which is levied as tuition fee, in order to implement the educational programme.

The RA population has been significantly reduced over the recent years, and in order to raise the effectiveness of the system the unification of EIs becomes a necessity. To implement this goal a minimum amount of students should be identified in large settlements, and living conditions should be created for outside students. The current financial needs and the difficulties of the future development should unite the traditional and new approaches. As a result the budget of the VET system will be redistributed. The investments of international donors, including EU, can facilitate some expenses.

The increase of effectiveness of the current VET can become a basis for moderating expenses. However this activity should be launched without creating competitiveness for specialists and organizations.

B. The review of transaction-related expenses of the VET system can be accompanied by a certain review of the institutions network, which will enable the ministry, in particular, in big cities, to reduce the number of institutions teaching one and the same professions. As a result the idea of education jointly funded by the private and public sectors should be set forth by law. It could be applicable for initiatives in the preliminary and middle professional education and training. The international experience shows that the funding of various types of VET is something common and it should be encouraged. This could take place if the public and private cooperation is referred to from the legal point of view. Eventually in conformity with the provision on public and private cooperation the first drafting of the brief description of the VET establishment and activity foundation should be envisaged by law. It will be based on the financial investments of social partners and, in case it is realistic, the foundation will start its activity.

The use of financial resources by the institution allocated by the state needs to be radically reformed.

The monthly scholarship of a student totals 4700 drams, and being a miserable amount, it actually does not solve any social problem and does not promote the good progress. It is expedient to review the principles of the provision and distribution of resources allocated for scholarships given the following approaches:

- the resources allocated to a specific institution for scholarship are disposed by institutions independently, bearing in mind not only the progress, but also the social state of the student (could be paid as allowances);

- a reserve fund is shaped from the general scholarship fund anticipated for the entire system, which, in the procedure approved by the Armenian Government, is disposed by the Ministry of Education and Science for allocating allowances or encouraging students with great progress, or needy ones;

The financial reform strategy of the preliminary and middle professional education should be aimed at the regulation of the following matters:

- specification of state funding, transparency, equal starting conditions;
- gradual increase of financial security by the state, equal it to the world average standards, later also to the financial standards of developed countries;
- extension of state funding benefits on students studying in the paid system;
- specification and regulation of the forming of financial means and reports on expenses, enlargement of openness, provision of transparency;
- regulation and specification of tuition fees and personnel preparation cost definition.

C. The RA Ministries of Education and Science, Finance and Economy are responsible for the transition to new financial mechanisms.

The Councils – collegial management bodies of institutions will be responsible for the transparency and openness of the institution’s income and expenses and more rational use of financial means.

D. The following actions should be implemented and mechanisms applied for ensuring the afore-mentioned strategy of the preliminary and middle professional education by one line for each educational institution, stemming from the number of students within the state order, according to the following formula

$$B = A \times N + C + D,$$

where:

- B is the money allocated to an educational institution from the state budget for a given financial year;
- A is the amount allocated to each student within the state order, depending upon the nature of profession; N is the total number of students within the state order as at October of the previous fiscal (financial) year;
- C is the amount allocated for the maintenance of buildings and premises;
- D are the allowances for students allocated by the state, which currently are in the form of scholarships.

The RA government should define the extent of A, C, D for each year, and the educational institution is informed thereon.

The implementation of financial reforms requires:

- laying down an entry on the state funding contents and safeguards in the section of the law entitled “Funding”;

- organization of courses for the principals, accountants and council members on the working out of financial means, estimates of budget and disposal of the forms of their distribution (expenses);
- development of manuals and model forms;
- development of the procedure for the determination of allowances for the students;
- development of the procedure for the determination of tuition fees, which will take into consideration both the social aspects of the matter and the quality of education.

E. The transition to new financial mechanisms will start immediately after the passage of the law, and training of respective personnel of institutions for working in new conditions.

7. Inclusion of different forms of VET into a single statutory framework

A. Above the distribution of the Armenian middle professional state education institution by ministries was presented.

As at January 1, 2001 16 from among the operating 61 professional technical colleges were under the subordination of the Ministry of Education and Science, 10 - under the subordination of the Yerevan city council, and 35 – under the provinces (marzes) of Armenia.

In 2001-2002 within the framework of the rationalization programme, part of these schools was reorganized into senior schools with vocational (craftsmanship) shift, others were united with other educational institutions, some more were dissolved. As a result currently 11 such educational institutions operate under the subordination of the Ministry of Education and Science, 6 – under the subordination of the Yerevan Municipality and 11 – under the provinces (marzes) councils.

This type of separation and groundless decentralization of the educational institution network lead to an extensive inefficiency of their governance (administration), which is expressed by slow decision-making, impossibility of the development and implementation of a single state educational policy, ineffective use of extremely poor resources, etc.

The current VET system with the degree of the specialization of graduates does not correspond to the labour market and industrial requirements and its structure, which is expressed, in particular, by the constantly growing number of small and medium businesses. The system continues to prepare one and the same specialists in one and the same amount and one and the same quality of skills. At the same time it is not flexible from the perspective of granted qualification, and in this respect it cannot be compared with the VET systems of other countries.

The levels of professional qualifications which are granted in Armenia, are the middle and preliminary professional education and lower-preliminary professional education.

Both of them practically do not comply with any professional level operating in Europe. Besides the dominant majority of working or unemployed adults there is not any training programme, which in the long perspective would promote their employment.

B. The components of human resources development (HRD) should be separated and clearly defined. They are as follows: professional education, professional training, initial professional training and continuous professional training. The respective types of activity should be officially recognized, and from the perspective of expected results too.

Besides the following points should be identified:

- the body responsible for the implementation of each component of HRD;
- the way each component will be linked to the others and complement them;
- the way HRD components will be linked to employment and industry.

All the afore-mentioned definitions should be included in a single statutory framework with the view of avoiding inconsistencies and ensuring efficiency.

The vocational education and the initial and continuous professional training should together meet the requirements of the public for refreshing human resources. In this case they should include all levels of required qualification in the fields of employment and industry, complementing each other, as it is done in the developed European countries, safeguarding an easy understanding of qualification levels, which could significantly impact the establishment of the system aimed at the recognition of abilities and transferability.

C. The RA Ministry of Education and Science will be responsible for HRD for professional education, the RA ministry of Labour and Social Issues - for professional training, and the social partners in the name of employers and organizations representing workers' associations. They all will be the governing bodies.

D. The following points will be defined by legislation:

- HRD components, types of relevant activity, their requirements, namely licensing and accreditation;
- system of qualification degrees;
- responsible bodies and their powers;
- principles of the final attestation implementation of graduates.

Sublegislative normative acts will be developed and approved after the adoption of the law. Besides, by the decision of RA Government:

- senior schools with craftsmanship shifts (former professional schools) will be reorganized into preliminary professional educational institutions - craftsmanship colleges;
- all middle professional state educational institutions currently operating in Armenia will be transferred to the Ministry of Education and Science.

E. The reorganization of institutions and their transfer to Ministry of Education and Science will be completed before the beginning of 2004-2005 academic years. For some institutions it will last till 1 January 2005.

Other legislative acts regulating the issue will be approved within one year after the passage of the law.

F. Extra financial means or human resources will not be required.

8. Rationalization of the governance and management of professional educational institutions

A. A multi-tier and more detailed interference on the part of state bodies into the governing process of institutions is one of the problems of the governance and management of professional educational institutions. There is a lack of confidence in preliminary and middle professional educational institutions, the level of their autonomy is low, the mechanisms of state regulation balance (on the one hand state governance and on the other hand self-governance of educational institutions), the public oversight of education quality and efficiency is weak. Radical efforts should be carried out, which should be of the following strategic trends:

- introduction of the system of collegial governance;
- safeguarding transparency and openness of governance;
- decrease of the state interference in governance and enlargement of the self-governance of educational institutions;
- clear distribution of competences and responsibilities between educational institutions and the governing body;
- improvement of the abilities of governors and managers;
- deliverance of the authorized state body from the implementation of a number of not important administrative functions, more effective intervention with the solution of political and strategic problems.

B. The following mechanisms will be used for the implementation of the aforementioned trends:

- a collegial governing body, called institution council will be set up in preliminary and middle educational institutions. The composition of the council will depend upon the number of students and will consist of 5-13 members. The members of the council will be elected by the staff of institutions, students' council and board of trustees by secret ballot. The council will also include representatives of the authorized governing body, and their number should not exceed 30% of the council members. The powers of the election of the institution's executive director will be reserved to the institution council.

- with the view to ensuring the collegial governance of the institution the positions of the heads of structural subdivisions, heads of subsidiaries, chairs and sections, committee chairmen will also be elective;
- with the view to ensuring the openness and transparency of governance provisions on the requirement for regular reports on various areas of the institution's activity will be anticipated in the statute of the institution;
- the autonomy of educational institutions will be revealed in the decision-making of the governance of the education process, formation of the institution's budget, procurement and use of means, development and introduction of educational programmes, choice of teaching methods, organization of the teaching process and other issues;
- the distribution of administrative powers will be strictly specified among the institutions and the authorized body with the view to avoid overlapping and unregulated functions.

C. The RA Ministry of Education and Science is the body responsible for the above-mentioned issues.

D. The provisions aimed at the solution of the problem will be basically defined by the RA law on Preliminary and Middle Professional Education.

Following the passage of the law a number of sublegislative normative acts should be developed and introduced, namely:

- the procedures for the election and appointment of the director, heads of subsidiaries, chairs and sections;
- model statute of preliminary and middle professional educational institutions;
- model statute of an institution;
- regulation of the subdivision of educational institutions, etc.

The transition to the new system of governance will require the organization of training courses for directors, courses for the chairmen and members of the councils of educational institutions.

E. The implementation of changes will start immediately after the passage of the respective law.

Till 1 January 2006 the development and approval of a number of necessary sub legislative acts will be over.

The system of the election of directors will be introduced within 3-5 years. First it will extend to the election of newly appointed directors, later - to the re-election and re-appointment of directors in office.

The training courses for the management of institutions will start from October 2004 and will be of a continuous nature with the frequency of 3-4 years.

F. Significant financial investments will not be required. The necessary normative acts will be developed mainly by the staff of RA Ministry of Education and Science. The

training of the management of educational institutions will be funded by the concrete institution. The courses organized for the staff of the ministry could be funded partially by the means allocated for the training of RA civil servants, and partially by the TACIS project on the “Support to the development of an integrated VET system” in Armenia.

9. Social partnership

A. Vocational education and training should develop based on social partnership. It should play its role, in particular in continuous training. The decision-making of social partners (employers) is a guarantee for the conformity with labour market requirements, whereas their large-scale investments into different degrees and forms of the VET system could provide a stable development growth of the economy and VET system.

The state is responsible for legislation and implementation of the VET, but, on the other hand, policy development should not be completely within the hands of the state. However, almost all components of professional education should be created based on bilateral and/or trilateral co-operation, since social partners in the labour market should recognize the qualification and skills of specialists. In this respect the “from bottom to top” approach of decision-making should be applied. However, such an involvement of social partners into the functions of the VET should not be based solely on their initiative. The involvement of social partners into the VET system is necessary for the provision of information, knowledge and consultancy, as well as for providing seats for students’ practical training.

B. To implement the task the following points should be carried out:

- establishment of a social dialogue on the VET system at national, and, if possible, at regional levels;
- definition of the role and responsibilities of social partners at national, marz and local levels;
- establishment of a stable co-operation between the VET system and/or its individual institutions and enterprises and their unions at local levels;
- establishment of vocational education foundation of social partners.

C. The establishment of continuous and stable social partnerships in VET needs to be institutionalized. The VET committee (Council) will be the key organization, which will be established as one of the functions of the RA VET law application (see also section 5 of this chapter). The council will be comprised of equal number of high-ranking representatives of employer organizations (Chamber of Commerce and Industry, employers’ union etc.), trade unions and interested ministries, and will be managed by the minister of education and science of RA.

The council will sit at least twice a year-once prior to the parliamentary year with the view of considering the annual policy plan, and once during that year to evaluate the policy implementation.

D. The establishment of the VET council should be laid down by the respective law. The council can submit routine proposals to the Armenian government.

Preliminary meetings between the future council members will be organized with the view to facilitating the initial activity of the council and signing a memorandum. The memorandum will define the principle of the mutual use of responsibilities and resources. An independent secretariat agreed with all parties is proposed to be set up for the development of the memorandum text.

E. The memorandum development process can start prior to the passage of the law, or even independently and finish within six months. The establishment of the council will start after the passage of the law and finish within one year.

F. The long-term activity of the council will require human and financial resources, it should be safeguarded by the mutual consent of the government and social partners.

10. Transparency and accreditation

A. The notion of accreditation appeared in Armenia in 1989-1990, when, along with traditional state educational institutions a number of private educational institutions were set up. The latter orientating themselves towards professions enjoying great social demand and not existing in the past became serious rivals for state educational institutions, in particular, higher educational institutions in recruiting applicants. It was quite natural that in these conditions there was a need to set up a flexible system of governing education, and introduce more efficient oversight mechanisms of the activity of educational institutions, contents of education and teaching quality. This is the accreditation system. The notion of accreditation acquired legal basis and legal force only in 1999 after the passage of RA law on education.

Despite the sufficient substantiation of the legal framework and organizational activities, the state accreditation of education was not carried out at a proper level, and there were many mistakes and gaps. The basic requirement for the state accreditation envisaged by law was not observed in the state accreditation process, i.e. safeguarding the teaching process complying with state educational standards. The process did not serve as a permanently operating system of teaching quality oversight, and did not promote the increase of education quality. Those responsible for the implementation of accreditation without proper experience were not either trained to work in this field.

B. The entire accreditation system needs to be radically improved strictly adhering to the following basic principles, objectives, tasks and functions.

The basic objectives and tasks of accreditation are as follows:

- increasing the preparation level of specialists and efficiency of the educational institution's activity;
- safeguarding the right to respective education complying with citizens' abilities and wishes;

- safeguarding the right of the professional (educational) quality of accredited educational institutions;
- protect the public from low-quality education and secure individual right to acquire education according to the - scope, contents and quality determined by public requirements. Providing the public with actual information on the quality of education;
- promotion of dynamic processes of the educational institution's self -development and self-improvement through regular self-examination of the educational activity;
- protection of the equivalence and rights of the education system in the relationship with the state, public and specialist-consuming organizations, as well as in the integration process with the international education system.

The basic principles of accreditation will be as follows:

- independence and autonomy of the state accrediting body;
- state and public nature of accreditation;
- transparency of the accreditation process and quality control, provision of openness. Transparency of the reports on the participation of all interested parties in the process, quality control and ensuring processes;
- provision of the objectivity of assessing the activity of educational institutions;
- voluntary nature;
- restriction of the date of effect of the credentials;
- continuity of quality control.

C. With the joint responsibility of social partners a VET development institute will be established by the Ministry of Education and Science, which will also deal with the development of the qualification system. The institute will also provide the composition of the VET tripartite council.

The Ministry of Education and Science is the body responsible for all accreditation processes.

D. All basic principles of the issue will be set forth by law, whereas the mechanisms, standards and requirements will be laid down by government decisions and orders of the minister of education and science.

Modern mechanisms, ways and rules should be developed for the quality control and evaluation in order to achieve the goals; study the norms and methods operating in institutions, present their comparative analysis from the angle of international experience and demand that educational institutions perform their functional obligations with the view of ensuring quality of education.

Annually the public should be informed through the media and specialized periodicals on the results of studies on accreditation standards, quality control and evaluation in order to provide transparency and publicity of accreditation and education quality. In determining the accreditation standards one should agree them with all interested

ministries, agencies, marzes (provinces), NGOs, creative and professional associations and unions. Leading specialists need to be involved in the activities.

The process of the licensing of educational institutions must be considered as a safeguard for accreditation, and actually its first stage, and the public should be informed on the results of this process.

E. The new accreditation system can be introduced starting from 2005-2006 academic year, after the passage of the law and respective sub legislative acts.

F. Certain financial means will be required for the organization of training courses for the staff of the licensing and accreditation service (agency)

The issues of the establishment and funding of the VET development institute will be discussed with social partners. Budgetary investments might also be required.

11. Integration to the international developments of education sphere

A. Education systems of various countries have certain differences and peculiarities, which stem from the state and education policies of each country, degree of development, national and cultural peculiarities, economic development and other numerous factors.

In their turn they lead to the diversity of requirements and conditions presented to the degrees of education period, quality contents, structure of the education system and mix of evaluation criteria, education standards and methods, thus leading to the need for the regulation and unified methodology of their comparability and identification of equivalence.

The matters of the recognition and equivalence of certificates and diplomas, scientific degrees and titles granted by educational institutions, their comparability and conformity currently become more important, since both worldwide and in the region the solution of the problem of education equivalence will have a decisive impact on the mobility of students, professors and specialists, will create equal conditions and possibilities for getting education and launching professional activity, will help reduce human discrimination in the global labour market and education space.

The solution of this problem will be topical for the humanity also in the 21st century, but the issue of international integration, mutual recognition of graduation certificates of the education of different levels and the definition of their equivalence still remain unsolved by all countries and one of the main problems of education.

B. In conformity with the Lisbon convention, which though relates to higher education, in a number of matters can equally apply also to preliminary and middle professional education. Each participating state should set up an education information centre with the following tasks:

- provide substantiated, precise and fresh information on the education system and its qualifications;

- facilitate access to the information on other the party's education systems and qualifications;
- provide consulting, expertise and information on the recognition and evaluation of qualifications of granting certificates in conformity with the republic's laws and regulations.

The Armenian strategy of ensuring integration with the international education space and equivalence of education does not mean at all that a new or general education system is introduced. International standards are not an obligatory requirement either. The interaction of the local peculiarities and socioeconomic conditions of each country leads to an education system, which, by many features is acceptable for that country. The imposition of any experience in another country is inefficient and not justified.

The international integration of education should envisage transparency of the Armenian education system, specification of governance, harmonization and comparability of the basic definitions, basic and additional criteria of ratings. The criteria are admission, age, staff and graduate qualifications, the entire duration of studies, national education degrees and classification structure, type and contents of the programme, quality assessment systems, type of the next education and professional work field.

An answer to the following question should be given: is Armenia's middle professional education system ready to be included in the international system? In our view, the transition difficulties are not great, and a smooth transition can be provided.

C. The Ministry of Education and Science and Foreign Affairs Ministry will be responsible for the international integration of the Armenian preliminary and middle professional education system.

The Armenian National Observatory of the European Training Foundation will provide the information basis of integration with respect to awareness rising on international developments.

D. The RA law on preliminary and middle professional education should set forth provisions of the internationalization of the Armenian VET system by proclaiming the country's position thereon.

E. International integration is a lasting and almost permanent process, but its implementation can start following the passage of a law with respective provisions. It will be implemented by steps in conformity with the preparedness of the RA VET system.

F. Extra financial means will be required for organizing study tours of RA VET managers and governors with the view of familiarizing themselves with the VET system of foreign countries.

12. Life-long Learning

A. Life-long learning is a process, which is implemented through educational and non-educational institutions. Through life-long learning certain educational and industrial training programmes are used. It is aimed at reproducing, updating, developing and effectively using the knowledge and skills acquired through fundamental education depending on the requirements and conditions of the given period.

On the one hand any other professional education and training system cannot provide students with such education, which will ensure life-long labour or income prospects, on other hand the continuous and never interrupted education process leads to the innovation of human resources and life-long learning contents adaptation, which, as a common idea, can constitute a subsystem of professional education, initial and continuous professional training.

The initial education stage of young people should be followed by the diversity of feasibility for formal and non-formal professional education and initial and continuous training and retraining, which are effectively linked to the labour market and industry shaping alternative prospects. This system is clearly effective from the angle of providing the country's labour market with qualified specialists, and its introduction should be regarded as the country's VET system development strategic objective.

B. The life-long learning system should be aimed at:

- enlargement of possibilities for RA citizens to get additional education;
- professional quality growth of an individual through his/her working (production) activity;
- increase of competitiveness of the labour force in the labour market;
- development and enlargement of new functions for RA educational institutions (educational programmes: "Education for adults");
- provisions of state guarantees for training;
- increase of the efficiency of the system of relationship and links between education and labour market;
- licensing of any type of educational activity.

C. The RA Ministry of Education and Science is responsible for the organization, licensing and oversight of educational activity, and the Ministry of Labour and Social Issues is responsible for policy development, order forming and funding from the state budget. Social partners in the name of employers' and workers' associations will also be responsible, and they are the main beneficiaries of the introduction of the system.

D. There should be clear provisions in the law for making the life-long learning system an indivisible part of VET system; a clear definition of the competences of all interested parties, which, in particular, implies laying down definite obligations on the part of employers regarding the employees' training and retraining. The following steps will be necessary for launching the system:

- development of the sub legislative field for the organization of supplementary education;
- development of a state support system (budgetary, tax, etc.) for institutions implementing supplementary;
- licensing of organizations implementing supplementary education:
- coordination of agency and interagency tariff and qualification characteristics, organization of the recognition process of certificates granted within the frame work of supplementary education programme.

Along with the afore-mentioned there should be awareness-raising among the students on the use of life-long learning.

E. The introduction of the system could start after the provision of the legislative field, but its full and normal activity is perceivable in the long perspective.

F. Extra budgetary resources will be required for the improvement of funding envisaged for the training of the unemployed, but in conformity with to realistic budgetary possibilities.

Primarily the employers, trade unions and the trainees will provide the funding.

STATE MIDDLE PROFESSIONAL EDUCATIONAL INSTITUTIONS OF RA

Ministry of Education and Science	
1	Yerevan State Industrial College
2	Yerevan State Electro-technical College
3	Yerevan State College of Informatics
4	Yerevan State Technological College
5	Yerevan State College of Light Industry
6	Yerevan State College of Food Industry
7	Yerevan State Constructing College named after A. Tamanyan
8	Yerevan Financial-Banking College
9	Yerevan State Financial-Economical College
10	Yerevan State College of Trade and Services named after N. Achemyan
11	Yerevan State Humanitarian-Technical College
12	Yerevan State Pedagogical College named after A. Bakunts
13	Yerevan State Humanitarian College
14	Yerevan State Musical College named after R. Melikyan
15	Yerevan State Musical-Pedagogical College named after A. Babajanyan
16	Yerevan State College of Art named after P. Terlemezyan
17	Pedagogical College of the Educational Complex “M. Sebastatsy”
18	College of the Armenian State Engineering University
19	College of the Armenian Agricultural Academy
20	College of the Yerevan State Medical University
21	Gyumri State Engineering College
22	Gyumri State Technical College
23	Gyumri State Pedagogical College
24	Gyumri State Musical College
i	Gyumri branch of the Armenian State Engineering University
25	Artik State College
26	Vanadzor State Polytechnic College named after S. Tevosyan
27	Vanadzor State Technological College
28	Vanadzor State Musical College named after Kara-Murza
29	Spitak State College
30	Alaverdi State College
31	Gavar State Industrial-Pedagogical College
32	Gavar State Musical College
33	Sevan State College
34	Martuni State College
35	Vardenis State College
36	Kapan State Engineering College

37	Kapan State Musical College
38	Goris State Pedagogical College
39	Sisian State Humanitarian College
40	Sisian State Economical College
41	Meghri State College
42	Ijevan State College
43	Dilijan State College
44	Dilijan State College of Arts
45	Berd State College
46	Armavir State Industrial-Pedagogical College
47	Armavir State College of Arts
48	Echmiatsin State College
49	Abovyan State Engineering College
50	Hrazdan State College
51	Charentsavan State College
52	Ararat State College
53	Artashat State College
54	Eghegnadzor State College
Ministry of Agriculture	
55	Yerevan State Agricultural College
56	Shirak State Agricultural College named after M. Tumanyan
57	Vanadzor State Agricultural College
58	Stepanavan State Agricultural College named after Professor A. Kalantar
59	Gavar State Agricultural College
60	Goris State Agricultural College named after Professor Kh. Yeritsyan
61	Armavir State Agricultural College named after S. Lukashin
62	Masis State Agricultural College
63	Nor-Geghi State Agricultural College named after Academician G. Aghajanyan
Ministry of Health	
64	Yerevan State Basic Medical College
65	Yerevan State Medical College “Erebuni”
66	Gyumri State Medical College
67	Vanadzor State Medical College
68	Kapan State Medical College
69	Dilijan State Medical College
70	Armavir State Medical College
71	Hrazdan State Medical College
72	Ararat State Medical College
73	Gavar State Medical College
74	Martuni State Medical College
Ministry of Culture and Youth Affairs	
75	Yerevan State College of Culture
76	Yerevan State College of Dancing Art

77	Yerevan State College of Variety Art and Jazz
State Committee for Physical Culture and Sports under the RA Government	
78	Yerevan State Sports College for Olympic Reserves
ii	Tsakhkadzor branch of the Yerevan State Sports College for Olympic Reserves
79	Gyumri State Sports College for Olympic Reserves
Ministry of Energy	
80	Abovyan State Energetic College

LIST OF PROFESSIONS OF MIDDLE PROFESSIONAL EDUCATION

0100 Natural Sciences

- 0101 Hydrology
- 0102 Meteorology

0200 Law, Social Work, Humanities

- 0201 Jurisprudence
- 0202 Law and Organisation of Social Security
- 0205 Social Work
- 0206 Publishing
- 0207 Interpreting and Clerical Work
- 0208 Interpreting and Customs
- 0209 Interpreting and Archives
- 0210 Interpreting and Organisation of Services
- 0211 Organisation of Surd-communication

0300 Education

- 0301 Teaching of Armenian and Foreign Languages
- 0307 Physical Training and Sport
- 0308 Professional Training (by branches)
- 0310 Musical Education
- 0312 Teaching in Elementary School
- 0313 Pre-school Education
- 0314 Social Pedagogy

0400 Healthcare

- 0401 Medical Treatment
- 0402 Obstetrics
- 0403 Medical Prophylactics
- 0404 Medical Optics
- 0405 Pharmaceutics
- 0406 Nursing
- 0407 Laboratory Diagnostics
- 0408 Laboratorial Activity
- 0415 Organisation of Nursing
- 0416 Dental techniques

0500 Culture and Arts

0501 Musical Instrument Performance
0502 Singing
0503 Chorus-conducting
0504 Theory of Music
0505 Musical Variety Art
0506 Choreographic art
0507 Actor's Art
0508 Circus Art
0509 Movie and Theatre Direction (by branches)
0510 Theatre-decoration Art
0511 Variety Art
0512 Painting
0513 Sculpture
0514 Design (by branches)
0515 Decorative Applicative Art and National Crafts
0516 Restitution, Conservation and Stowage of Art Works
0517 Library Science
0518 Social-cultural Activity and Folklore

0600 Economics and Management

0601 Economics, Book-keeping and Audit (by branches)
0602 Management (by branches)
0603 Financing (by branches)
0604 Banking
0605 Statistics
0606 Insurance (by branches)
0607 Marketing (by branches)
0608 Commerce (by branches)
0612 Commodity Research
0613 Land Resource Management

0800 Geology

0801 Geological Drawing and Minerals' Area Searching
0802 Geophysical Methods of the Mineral Searching and Research
0803 Hydrogeology and Engineering Geology
0804 Mineral Mines' Research
0806 Geology and research of gas and oilfields
0809 Geo-techniques
0810 Gemmology

0900 Mining

0901 Mine Survey

- 0902 Open Exploitation of the Mines
- 0903 Underground Exploitation of the Mines
- 0904 Ore Concentration
- 0905 Gas and Oil-pipe and Gas and Oil-store Concentration and Exploitation
- 0906 Work and Exploitation of gas and oilfields
- 0907 Gas and Oil-well Drilling
- 0908 Mine and Underground Construction

1000 Energy

- 1001 Electric Power Stations and Networks and Systems
- 1002 Electric Wiring Installation and Exploitation
- 1003 Hydroelectric Power Plants
- 1004 Power Supply (by branches)
- 1005 Thermo-power Plants
- 1006 Heat Supply and Thermo-technical Equipment
- 1007 Atom and Nuclear Power Stations
- 1008 Water, Fuel and Lubricant Technology in Electric Power Stations

1100 Metallurgy

- 1101 Ferrous Metallurgy
- 1102 Non-ferrous Metallurgy
- 1103 Ferrous and Non-ferrous Metal Moulding Production
- 1104 Metallurgy and Thermo-processing of Metals
- 1105 Processing of Metals by Pressing
- 1106 Composite and Powder Materials; Coatings

1200 Machinery

- 1201 Mechanical Engineering Technology
- 1202 Flying Objects
- 1203 Aircraft Engine Production
- 1204 Ship building
- 1205 Motor-car and Tractor Construction
- 1206 Railway Rolling-stock Production
- 1207 Welding Production
- 1208 Abrasive Glazier's Diamond Instruments
- 1209 Special Machines and Equipment
- 1210 Production of Goods on Automatic Rotor and Rotor-Conveyor Belts
- 1211 Machine-tool Construction

1700 Technological Machines, Equipment and Transport

- 1701 Technical service and maintenance of the Industrial equipment
- 1703 Technical Exploitation of the Flying Apparatus and Aircraft Engines

- 1705 Technical Service & Maintenance of Motor Transport
- 1706 Crane Transport, Construction, Road Machinery and Equipment Exploitation and Maintenance
- 1707 Technical Exploitation, Maintenance and Service of Rolling-stock
- 1708 Technical Service and Maintenance of Electronic Technique Production Equipment
- 1709 Technical Service and Maintenance of the Geological Research Equipment
- 1710 Trade and Public Food Enterprises Equipment Exploitation and Maintenance
- 1711 Installation, Service and Maintenance of Refrigerator-compressor Machines
- 1713 Hydraulic Machines, Hydro-driving and Liquid-air-operated Automation Technical Service and maintenance
- 1715 Installation, Technical Service and Maintenance of Medical Techniques
- 1716 Exploitation and Service of Machine tools

1800 Electro-techniques

- 1801 Electrical Machines and Apparatus
- 1802 Electro-Insulating, Cable and Condenser Technology
- 1803 Techniques and Sources of Light
- 1804 Exploitation of Transport Electro-equipment Automated Mechanisms
- 1805 Electro-technical Equipment
- 1806 Technical Exploitation, Maintenance and Service of Electronic and Electro-mechanical Equipment

1900 Equipment Building

- 1901 Precision Mechanical Instruments
- 1902 Quality Control and Diagnosis Instruments
- 1903 Aviation Instruments and Complexes
- 1904 Acoustic instruments and complexes
- 1905 Technical and Medical Apparatus and Systems
- 1906 Orthopaedic Production
- 1907 Traumatology and Rehabilitation Techniques
- 1908 Optical and Optic-electronic Instruments and Systems
- 1909 Gyroscopic Instruments
- 1910 Radio-electronic Equipment
- 1911 Electro-mechanical Instrumental Equipment

2000 Electronics, Microelectronics, Radio-techniques and Telecommunications

- 2001 Microelectronics and Solid-state Microelectronics
- 2002 Electronic Instruments and Equipment
- 2003 Radio-instrument Production
- 2004 Communication Nets and Commutation Systems
- 2005 Multi-channel Telecommunication Systems
- 2006 Radio-communication, Radio-transmission and Television

- 2007 Technical Exploitation of Electrified and Pilotage and Navigation Complexes
- 2008 Exploitation of Meteorological Radio-technical Complexes
- 2009 Communication Means Exploitation
- 2010 Technical Exploitation of Transport Radio-electronic Equipment (according to the types of transport)
- 2011 Exploitation of Radio Communication and Electric Radio-navigation Devices of Ships
- 2012 Radio-signal Identification and Generation
- 2013 Audiovisual Techniques and Sound Provision of Audiovisual Programmes
- 2014 Technical Service and Maintenance of Radio-electronic Equipment
- 2015 Post Communication
- 2018 Radio Technical Complexes and Systems of Controlling Space Flying Apparatus
- 2019 Exploitation of Film and Video Equipment
- 2020 Audio Techniques Service

2100 Automation and Control

- 2101 Automation of Technological Processes and Production
- 2102 Automatic Transport Control and Technical Service of Electro-power Systems
- 2103 Automation, Tele-mechanics and Control in Transport (according to the types of transport)
- 2104 Automatic Control Systems
- 2105 Automatic Control of Thermo-electro-stations' Processes
- 2106 Control Systems and Means of Electro-power Engineering Labour Regulation
- 2107 Means of mechanisation and automation (by branches)

2200 Information technologies

- 2201 Computers, Computing Complexes, Systems and Nets
- 2202 Information Processing Automated Control Systems (by branches)
- 2203 Program Provision of Computer Engineering Techniques and Automated Systems
- 2204 Technical Service of Computer Engineering Techniques and Computer Nets

2300 Service

- 2301 Public Consumer Service Organisation
- 2302 Service Organisation in Hotels and Tourist Complexes
- 2303 Dry-cleaning and colouring of Goods
- 2304 Hair-styling Art and Decorative Cosmetology
- 2305 Photography
- 2306 Household Management
- 2307 Tourism
- 2308 Publicity
- 2311 Organisation of Public Catering
- 2312 Decorative Cosmetics and Cosmetology Art

2400 Exploitation of Transport

- 2401 Organisation of Transportation and Traffic Control (according to the type of transport)
- 2402 Air-transport Traffic Management
- 2403 Flying Exploitation of the Flying Apparatus
- 2404 Fuel-lubricant Service of the Flying Apparatus
- 2409 Exploitation of Transport Power Stations (according to the types of transport)

2500 Chemical Technology

- 2501 Chemical Technology of Organic Materials
- 2502 Chemical Technology of Inorganic Materials
- 2503 Electrochemical Production
- 2504 Coke-chemical Production
- 2505 Oil and Gas Treatment
- 2506 Production of Goods and Coverings out of Polymeric Materials
- 2507 Technology of Film and Photo Materials and Magnetic Carriers
- 2508 Production of Silicate and Refractory Non-metallic Materials and Goods
- 2509 Bio-chemical Production
- 2510 Secondary Raw Materials' Treatment (Recycling)
- 2511 Technology of High Molecular and Highly Efficient Compounds and Instruments
- 2512 Technology of Pyrotechnical Compounds and Goods
- 2513 Technology of Isotope Splitting
- 2514 Analytic Quality Control of Chemical Compounds
- 2515 Chemical Technology of Processing Production

2600 Forestry

- 2601 Timber Reserving Technology
- 2602 Timber Treatment Technology
- 2603 Timber Re-treatment Technology
- 2604 Forestry and Gardening
- 2605 Park and Landscape Construction

2700 Food Technology

- 2701 Grain Storing and Re-treatment Technology
- 2702 Bread-baking, Macaroni and Pastry Production
- 2703 Sugar-products' Technology
- 2704 Fermentation Productions Technology and Wine-making
- 2706 Fats and Fat-substitutes Technology
- 2707 Technology of Tinned Food and Food-infecting Materials
- 2708 Meat and Meat-products Technology
- 2709 Fish and Fish-products Technology

- 2710 Milk and Dairy Technology
- 2711 Food Technology in Public Catering

2800 Consumer Goods Technology

- 2801 Preliminary Treatment of Fibre Materials
- 2802 Spinning Production
- 2807 Colouring and Decorating of Light Industry Goods
- 2808 Cloth Modelling and Designing
- 2809 Clothing Industry
- 2810 Leather and Fur Technology
- 2811 Leather- goods Production
- 2812 Fur-goods Production
- 2813 Paper and Cardboard Goods Production
- 2814 Polygraph Production
- 2815 Musical Instruments Production
- 2816 Toy Modelling, Designing and Decorating
- 2817 Fur-cloths modelling and Designing
- 2818 Leather Goods modelling and Designing
- 2819 Consumer Goods Quality Examination

2900 Construction and Architecture

- 2901 Architecture
- 2902 Construction and Exploitation of Houses and Buildings
- 2903 Construction and Exploitation of Urban Roads
- 2904 Railway Construction, Railway Industry
- 2905 Construction and Exploitation of Roads and Airports
- 2906 Hydro-technical Construction
- 2907 Tunnel and Underground (Subway) Construction
- 2908 Construction of Bridges
- 2909 Production of Non-metallic Construction Articles and Constructions
- 2910 Metal-construction Making
- 2911 Installation of Industrial Equipment
- 2912 Water Provision and Drainage
- 2913 Installation, Regulation and Exploitation of Electronic Equipment in the Buildings
- 2914 Installation and Exploitation of Gas-providing Equipment and Systems
- 2915 Installation and Exploitation of Inner Sanitary-technical and Airing Systems
- 2916 Urban-construction Cadastre
- 2917 Mine Construction

3000 Geodesy and Cartography

- 3001 Applied Geodesy
- 3002 Aero-photo and satellite drawing and Photogrammetry
- 3003 Cartography

3100 Agriculture and Fishery

- 3101 Organisation of the Use of Land
- 3102 Agronomy
- 3103 Zoo-techniques
- 3104 Veterinary
- 3105 Bee-keeping
- 3106 Agriculture Mechanisation
- 3107 Agriculture Electrification
- 3108 Plant-growing Outputs' Storing and Treatment
- 3109 Ichthyology and Fish-breeding
- 3110 Industrial Fishing
- 3111 Hunting Science and Beast-breeding
- 3112 Farming Organisation
- 3113 Dog-breeding

3200 Environment Protection

- 3201 Environment Protection and Efficient Utilisation of the Natural Resources
- 3202 Melioration, Land Restoration and Protection
- 3203 Fire-safety
- 3204 Radiation safety

3400 Metrology, Standardisation and Quality Control

- 3401 Metrology
- 3404 Standardisation and Product Quality Control (by to branches)
- 3405 Quality Control of Metals and Welded Joints
- 3406 Doze-measuring and Protection from Radiation
- 3407 Quality Control of Construction Production
- 3408 Quality Control of Construction Articles and Constructions

LIST OF PROFESSIONS OF PRELIMINARY PROFESSIONAL EDUCATION

Code	Group of professions, the Profession	Qualification
0100	MACHINERY AND METALWORK	
0101	Technical Drawing	Draftsman
		Draftsman-constructor
0102	Welding	Gas-welder
		Electric-welder
		Electric-welder (welding works inspector)
		Electric-welder by automatic and semi-automatic equipment
		Manual electric-welder
0103	Machine Tools Works	Puncher
		Machine tools and metalwork inspector
		Adjuster of automatic lines and unit machinery
		Adjuster of Programmed Machine tools, operator
		Operator of Programmed Machine tools
		Turner
		Milling machine operator
		Grinder
		Tinsmith
		Metalworker-tool maker
		Metalworker for mechanical assembling works
		Metalworker-repairer
		Metalworker-electric fitter
		Metalworker - metal constructions assembler
		Metalworker for controlling-measuring equipment and automatics
0104	Metalwork	Inspector for ferrous metals production
		Crane driver for metalwork production
		Thermo-processor of rolling production
		Non-ferrous metals foundry worker
		Non-ferrous metals production inspector
		Physical-chemical testing laboratory assistant
		Adjuster-man in charge of apparatus for precious metals production
		Non-ferrous metals processor

		Electrodes production inspector
0200	CHEMICAL PRODUCTION	
0201	Chemical production	Man in charge of apparatus (general)
		Man in charge of apparatus - operator
		Chemical analysis laboratory assistant (general)
		Inspector of technological processes and production quality
		Metalworker-repairer
0202	Aniline painting production	Man in charge of apparatus (general)
		Metalworker -repairer
0203	Polygraph paint production	Man in charge of apparatus (general)
0204	Varnishing production	Man in charge of apparatus
		Metalworker-repairer
0205	Chemical fibre production	Man in charge of apparatus (general)
		Inspector
		Chemical analyses laboratory assistant
		Chemical fibre twisting and winding operator
0206	Medicine, vitamins biological medication and substance production	Man in charge of apparatus (general)
		Metalworker-repairer
0207	Synthetic rubber and oil-chemical goods production	Man in charge of apparatus (general)
		Metalworker for technological fitting and repairing
0208	Rubber mixtures production recycling	Operator-gluer of rubber polymeric spare-parts and constructions
		Vulcanisation processes operator
0209	Rubber goods, shoes and of rubber consumer goods production	Rubber technical goods assembler
		Rubber goods and shoe production equipment Adjuster
		Rubber shoes puncher
0210	Tire restoration and repairing production	Tire production inspector
		Rubber mixtures preparation operator
		Calender operator
0211	Oil, oil products, gas, coal, recycling and main gas pipes maintenance	Equipper (of apparatus)
		Controlling-checking equipment Metalworker
		Technological equipment repairing Metalworker
		Manual electric-gas welder
		Oil-base equipment repairer - electric Metalworker
		Metalworker-repairer
0300	INSTRUMENTS, EQUIPMENT, ELECTRICAL STATIONS AND NETWORKS	
0301	Electrical–technical	Electrician of mobile-operative brigade, driver

	and electronic equipment production	Electrician of mobile-operative brigade, manual electric-gas welder of mobile-business brigade
		Sub-stations maintenance electrician, manual electric-gas welder
		Distributing networks maintenance electrician, driver
		Air electric lines repairing electrician, driver
		Metalworker for electrical machinery repairing
		Electrical equipment maintenance electrician
		Electrical equipment repairing Metalworker-electrician
		Electrical machinery elements winder
		Chip assembler
		Semiconductor equipment assembler
0302	Radio-electronic and video-equipment production	Radio-electronic goods and equipment inspector
		Radio-electronic goods and equipment assembler
		Radio-electronic goods and equipment adjuster
		Condenser assembler
		Radio-television equipment repairing and maintenance mechanic
		VCR and tape player repairer-mechanic
		Computer operator
0303	Medical equipment maintenance and repairing	Radio-electronic goods and equipment assembler locksmith
0303	Medical equipment maintenance and repairing	Medical electronic equipment maintenance and repairing electrician
		Medical equipment maintenance and repairing electrician
0304	Aviation equipment repairing	Aviation equipment repairing Metalworker - mechanic
		Aviation engines repairing Metalworker
		Aviation electrical goods and equipment mechanic
0400	CONSTRUCTION	
0401	Construction assembler	Concrete constructions assembler
0402	Painting	Painter-constructor
0403	Revetment – tiling	Revetment tiling craftsman
		Revetment-mosaics craftsman
0404	Parquet work, carpentry	Parquet craftsman
		Carpenter- constructor
		Carpenter- constructor, joiner
		Carpenter
		Carpenter (artistic furniture production)

		Furniture decorative elements and template making craftsman
		Furniture details revetment craftsman, furniture revetment details assembler
		Furniture maker, packer
0405	Plastering	Plasterer
		Plasterer-painter
0406	Welding of building constructions	Manual electric-gas welder, Automatic and semi-automatic equipment electric-gas welder
0407	Stonemason	Stonemason
0408	Sanitary equipment	Sanitary technician – locksmith with a right of a gas welder
0500	TRANSPORTATION AND COMMUNICATIONS	
0501	Railway trains repairing	Diesel locomotives and trains repairing Metalworker
		Electric locomotive and wagon repairing Metalworker
		Carriage and goods wagon repairing Metalworker
		Subway electrical trains repairing Metalworker
		Tram wagon and trolleybus repairing Metalworker
		Wagon inspector-repairer
		Contact network electrician (railways)
		Contact network electrician (urban transport)
		Subway metal constructions Metalworker-electrician
		Subway equipment Metalworker-electrician
		Subway station and tunnel equipment and escalator Metalworker-electrician
0502	Railway rains maintenance	Diesel locomotive driver assistant
		Electrical locomotive driver assistant
		Subway electrical train driver assistant
		Diesel locomotive driver
		Electrical locomotive driver
		Subway electrical train driver
		Escalator driver
		Tram driver
		Trolleybus driver
		Subway station-master assistant
		Line brigadier
		Station-master assistant
		International train carriage conductor
		Goods receiving-delivering conductor (ticket conductor)

0503	Car transportation maintenance and repairing	Tractor-car driver with broad specialization, with driving license
		Auto-technician- Metalworker
		Track-Crane driver
		Car repairing Metalworker, driver
		Car body tinsmith-painter
		Car electrical equipment repairer- Metalworker
		Car driver
0504	Communications	Cable lines repairer electrician (with driving license)
		Telephone communications station's equipment electrician
		Telegrapher
		Communications operator
		Communications electrician
		Telephone operator
0600	CONSUMER GOODS PRODUCTION	
0601	Textile production	Dyer
		Saturation operator
		Dryer
		Twisting equipment operator
		Carding equipment operator
		Pre-thread equipment operator
		Warping equipments operator
		Twister
		Weaver (spin-cotton, flax, wool and silk production)
		Ribbon equipment operator
		Wrapping machine operator
0602	Stockinet production	Stockinet product and fabric knitter
		Stockinet product and fabric knitter, sewer (everyday necessities service)
		Socks production weaver
		Stockinet cloths fabric knitters (sewer-engine operator, fill-sewer)
		Stockinet haberdashery products embroiderer-lace worker
0603	Leather shoes production	Shoe revelling master
		Orthopaedic shoe designer
		Orthopaedic shoe cobbler
		Private orders cobbler
		Shoe repairing cobbler
		Leather haberdashery products repairer, maker
		Shoe top part assembler, line production operator
0604	Sewing production	Sewing equipment operator
		Sewer

		Tailor
		Sewing machine repairing Metalworker
0605	Polygraph production	Polygraph equipment Adjuster
		Compositor (manual and automatic)
		High printing worker
		Book production line machine operator, binder
		Photo-composing operator
0700	TRADES AND SERVICE	
0701	Trade service	Industrial products instructor-cashier
		Industrial products inspector-cashier (with knowledge of a foreign language)
		Food products inspector-cashier
		Food products inspector-cashier (with knowledge of a foreign language)
		Industrial products salesman
		Industrial products salesman (with knowledge of a foreign language)
		Food products salesman
		Food products salesman (with knowledge of a foreign language)
		Baker
		Barman (with knowledge of a foreign language)
		Barmaid
		Waiter (with knowledge of a foreign language)
0702	Food service	Cooker
		Cooker (with knowledge of national and international cuisine)
		Confectioner
		Confectioner (in public food institutions)
0703	Everyday service	Everyday necessary electrical equipment repairing
		Refrigerating equipment machine operator
		Ladies' Hairdresser
		Film-mechanic
0704	Art and jewellery items production and preparation	Miniaturist
		Semi-precious stones perfection and preparation master
		Faience drawer
		Chase-maker
		Metal artistic items master
		Wooden artistic items master
		Pottery artistic items master
		Carpet maker
		Embroider-lace maker (handicraft)
		Tapestry-maker

		Tailor-designer
		Stone artistic engraver
0705	Office works organization	Secretary-typewriter
		Clerk-typewriter (with knowledge of stenography, foreign language typing and modern office equipment utilization skills)
		Referent-assistant (with knowledge of a foreign language)
0800	AGRICULTURE	
0801	Wine-making and juice production	Wine-maker, driver
		Juice and syrup production operator
		Wine-making and juice initial preparation master
0802	Planting	Greenery, planter-florist, driver
0803	Apiculture (bee-keeping)	Bee-keeper, driver
0804	Cattle breeding food processing and maintenance	Butter/cheese manufacturer
		Chemical-bacteriological analysis laboratory assistant
0805	Agricultural (farm) works organization	Agricultural works organizer (farmer), driver
0806	Agricultural mechanization	Tractor-car driver
		Cattle breeding unit mechanizer, tractor-car driver
		Agricultural machines and equipment repairing Metalworker
0807	Agricultural electrification and autoimmunization	Cattle breeding and automated farms Metalworker - repairer
		Agricultural productions electronic equipment repairing and maintenance electrician, driver
		Rural electrification and communications electric, with driver's license
		Electric-welder, driver
0808	Veterinary and cattle breeding	Cattle veterinary treatment operator
		Junior veterinary
		Cattle breeder-farmer
		Silkworm keeper
0809	Agricultural productions accounting	Agricultural production accountant

THE PATHWAYS OF PRELIMINARY AND MIDDLE PROFESSIONAL EDUCATION

Pathway 1. After the completion of the basic general educational programme continuation of education by the preliminary professional (craftsmanship) educational programme for 1-2 years depending on the complexity of profession. This educational programme provides only craftsman's qualification (diploma) without secondary (complete) general education. The programme involves practical training with a strictly limited scope of theoretical and general educational subjects.

The objective of the programme is to acquire professional qualification within the possible short time and access to the labour market. The graduates of the programme will be able to make a smooth transition to the middle professional education system for the same or any related profession.

Since a graduate attested by this programme is not able to continue studies in a higher educational institution, he /she will have possibility to:

- a. Get secondary (complete) general education in any form: full-time learning, evening learning or external studies, which can be organized in a general educational senior school or in another organization. People will be able to attend the courses either immediately after the conclusion of professional education or any other time;
- b. Move to the preliminary professional educational programme (Pathway 2), which, besides a craftsman's qualification grants also a certificate of secondary (complete) general education;
- c. Study in a middle professional educational programme leading to improvement professional education (junior specialists) and general educational courses equivalent to secondary (complete) general education.

Pathway 2. After the completion of the basic general educational programme continuation of education by the preliminary professional (craftsmanship) educational programme lasting one year, more than the programme of the senior general education school, which implies the teaching of both professional and general educational subjects. The graduates are granted the qualification (diploma) of a craftsman in the respective profession and a certificate of secondary (complete) general education.

Pathway 3. After the completion of the secondary (complete) general educational programme continuation of education by the preliminary professional (craftsmanship) educational programme with the same or shorter duration as in the case of option 1. This educational programme also provides craftsman's qualification (diploma), but does not include general educational subjects at all.

Thus, the preliminary professional (craftsmanship) education enables to have jobs in the labour market, and also to continue studies at the next level of education.

Besides the afore-mentioned three educational programmes educational institutions implement also a special preliminary professional (craftsmanship) educational programme.

Stemming from the peculiarities and possibilities of people with needs for special education conditions, special programmes are developed and implemented for professional, craftsmanship and worker activity.

Pathway 4. After the completion of the general educational programme continuation of education by the middle professional educational programme, at least one year longer than the curriculum of the general educational senior school, which implies teaching of professional and general educational subjects.

Large-scale teaching of theoretical subjects is implied. Graduates are granted the qualification (diploma) of a junior specialist in the respective profession, and certificate on general educational subject studies.

Through the programme a number of general educational compulsory subjects are studied, while the others are studied on voluntary basis. The certificate on the study of compulsory subjects envisaged by the programme is a satisfactory condition to continue learning in a higher educational institution in the field of respective professions. A certificate on the studies of the general educational subjects in full scope is necessary to get higher education in another profession, which is equal to the certificate of secondary (complete) general education. The knowledge of the graduates of this programme with respect to general educational and professional subjects is registered by the credit system in order to move to the next degrees of education.

Pathway 5. After the completion of the preliminary professional educational programme the education by the middle professional educational programme continues in the same or related profession for 1-2 years. The granted qualification and teaching of general professional educational subjects are the same as in the previous case.

Pathway 6. After the completion of the secondary (complete) general educational programme the education by the middle professional educational programme continues for 2-3 years (except for arts, in this case another duration is envisaged). Graduates are granted the qualification (diploma) of a junior specialist in the respective profession, and are given the possibility to continue their studies in the system of higher education in the respective profession in a smooth (simplified) form.